Nam Theun 2 Hydroelectric Project
SOCIAL DEVELOPMENT PLAN
RESETTLEMENT ACTION PLAN
- APPRAISAL DRAFT, NOVEMBER 2004 -

VOLUME 1:
INTRODUCTION AND CROSS-CUTTING ISSUES

VOLUME 2:
NAKAI PLATEAU – EMDP AND RAP

VOLUME 3:
DOWNSTREAM AREAS – EMDP AND RESETTLEMENT AND COMPENSATION FRAMEWORK

VOLUME 4:
PROJECT LANDS RESETTLEMENT (ACQUISITION AND COMPENSATION) FRAMEWORK
Preface

This document is the Appraisal Draft (November 2004) of the Social Development Plan. This Appraisal draft supersedes the earlier Advanced Draft of May/July 2004. It has been drafted to incorporate as much as possible the comments and advice from World Bank, Asian Development Bank, Agence Française de Développement and the NT2 Project Panel of Experts.

This draft will be used as a basis for Appraisal by the IFI’s. Comments arising from this Appraisal, and any remaining comments of other stakeholders, will then be thoroughly reviewed and as appropriate, incorporated into the final SDP.

This Social Development Plan is drafted in four volumes. The present volume is the first and includes the Introduction and Cross-Cutting Issues. For further description of the four volumes, see Chapter 1.
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CHAPTER 1
INTRODUCTION to SDP

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1 INTRODUCTION

1.1 BACKGROUND
The Nam Theun 2 Project (NT2) involves the development of a hydroelectric scheme in Khammouane, Bolikhamxay and Savannakhet Provinces in central Laos, which will generate an average USD 235 million per year of gross revenue from electricity export to Thailand. The general Project location is shown in Figure 1-1.

Figure 1-1: Project Location & Key Infrastructure

The scheme involves constructing a dam on the Nam Theun River, a tributary of the Mekong River, 250 km east of Vientiane. This will create a 450 square kilometre reservoir on the Nakai Plateau and necessitate the relocation and rehabilitation of livelihoods of more than 1,000 households (for exact numbers, in each relocation or development program, refer to Chapter 11 in Volume 2). Water from the Nam Theun reservoir will be diverted by an intake structure (located about 40 kilometres upstream from the dam into diversion tunnel excavated in Phu Ark escarpment. The water in this tunnel will then drop about 350 meters before entering the turbines in a Powerhouse located at the foot of the escarpment.
Chapter 1: Introduction to SDP

The water discharged from the powerhouse will then flow to another river system, the Xe Bang Fai (XBF) (which also flows into the Mekong River, but about 150 kilometres south of the Nam Theun/Nam Kading), through a purpose-built downstream channel which, for about 10 kilometres, flows through paddy lands. The additional water in the XBF (described in Chapter 32) will impact current fisheries and riverside gardens livelihood activities. Transmission lines to the Thai border and to Thakhek, the construction or upgrade of some 150 kilometres of roads, quarries and soil deposit sites and other Project structures will also require some compensatory measures. A more detailed description of how these physical works impact on people is provided in Volume 4.

NT2 has been developed as a Build Own Operate Transfer (BOOT) Project by the Nam Theun 2 Electricity Consortium (NTEC) and the Government of the Lao PDR (GOL). It is owned by the Nam Theun 2 Power Company Limited (NTPC), a limited company registered under the laws of the Lao PDR., in which the GOL has a 25% equity stake. This approach allows GOL to be mostly protected from construction and operating risks, while at the same time benefiting significantly from its shareholding in the Project. Other shareholders of NTPC are EDF International, a subsidiary of Electricité de France, the world’s largest electric utility, with 35%; the Electricity Generating Public Company Limited (EGCO) of Thailand with 25%; and Thailand’s leading construction company Italian-Thai Development Public Company Limited (ITD) with 15%.

The GOL will receive during concession agreement period an average USD 80 million annual revenues from NT2 - in taxes, royalties and dividends. Such much needed GOL incomes will be used in a large portion to implement poverty alleviation programs within the country while providing an important source of revenue to the state budget.. NT2 will also contribute financially to the management of a 4,000 square kilometre protected forest area of recognized international significance, forming the watershed of the Project.

NTPC and the GOL are committed to meeting the World Bank (WB)’s economic, social and environmental standards as outlined in the Safeguard Policies (OP 4.12 Involuntary Resettlement, OP 4.11 Cultural Property and OD 4.20 Indigenous People, see Appendix B). This will help achieve greater benefits to the people of Lao PDR, while allowing WB to consider appraisal for the Project with a view to issue a country risk guarantee to some of the Project’s commercial lenders.

1.2 REGIONAL CONTEXT

1.2.1 Description of the Region

The Project area is in central Lao PDR and straddles the provinces of Bolikhamxay, Khammouane and Savannakhet (see Figure 1-2).

The region is characterized by intensive rural development along the lowland flood-plains of the Mekong River and by sparsely populated mountains to the north and northwest. Nine districts are affected by project activities, these being: Khamkeut, Nakai, Gnommalat, Mahaxai, Xe Bang Fai, Thakhek, Nong Bok, Xaibouly and Kanthabouly, with most activities taking place in the districts of Nakai, Gnommalat and Mahaxai.

The contrasting scale of landforms in the Project area is pronounced. The topography varies from lowland alluvial plains near the Mekong River at approximately El 140 to the foot of the escarpment of the Nakai Plateau, to the Plateau itself and to the adjacent mountains rising up to El 2,200 to the Vietnam border. The lowland plains include relatively flat low-lying areas (0% - 10% slope) interspersed with remnant “tower karst” limestone pinnacles.

1.2.2 Climate

The climate of the area is influenced by the southwest monsoon (wet season) which normally affects the area from May to October; and by the northwest monsoon (dry season) lasting from November until April.
The average annual rainfall over the Plateau is approximately 2,600 mm per year and at the damsite approximately 2,800 mm per year. Rainfall distribution is markedly seasonal with over 88% falling between April and September during the southwest monsoon, and only 12% falling between October and March during the northwest monsoon. This causes substantially high flows in the Nam Theun in the months of July and August (SMEC March 2003).

The Thakhek region is more seriously affected by the winter monsoon than other regions of Lao PDR. The summer monsoon reaches the region unhindered after crossing the overheated plains of Thailand. The monsoon wind speeds of highest frequency are between 2 and 4 on the Beaufort Scale (less than 26 km/h). The strongest winds are usually only felt during intense periods of the northeast monsoon. On average, 10 to 12 north-east monsoon events occur each year, generating wind up to approximately 100 km/h. On average, seven to ten South China Sea typhoons occur each year. Some of these may affect the region. Thai weather service information shows that for the period from 1951 to 1993, 18 typhoons passed through the area.

1.2.3 Regional Land Use

Regional land use is dominated by agriculture, predominantly rice cultivation, production forestry and subsistence activities. Specifically, the alluvial lowlands are dominated by rice cultivation whilst forestry and swidden or “slash-and-burn” agriculture occur on the Nakai Plateau. Infrastructure and development in the region is sparse, except for agricultural development and irrigation along the Mekong flood plain. Five categories of land use have been identified:

i. Agricultural land which is primarily used for rice paddy cultivation;
ii. Production forest which is used for commercial timber operations;
iii. Undeveloped forest land which is primarily used for swidden agriculture;
iv. National Biodiversity Conservation Areas which can be used for conservation and tourism; and
v. Urban land which is used for urban purposes.

Various GOL policies on land use within the project area are detailed in Chapter 19. The land use categories mentioned here are general and used for broad classification purposes only.
Figure 1-2: Districts and Provinces in the Project Area
1.3 REGIONAL SOCIO-ECONOMIC PROFILE

1.3.1 Population

In 1999, the total population in Khammouane Province was estimated to be 331,044, with a density of 20.3 persons/km², which is close to the average Lao PDR population density of 22.1 p/km². Bolikhamxay Province had a population of 171,976, with a density of 11.5 p/km², and Savannakhet, a population of 755,781, with a density of 21.8 p/km² (LECS2 1999). A summary of population statistics for the three provinces is provided in Table 1-1.

Table 1-1: Population Statistics for Provinces Affected by the NT2 Project

<table>
<thead>
<tr>
<th>Province</th>
<th>Total (’000s)</th>
<th>% of Country Population</th>
<th>Male</th>
<th>Female</th>
<th>No. of households</th>
<th>Avg. no. persons per HH</th>
<th>Pop. Density (p/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolikhamxay</td>
<td>170.0</td>
<td>3.4</td>
<td>48.7%</td>
<td>51.3%</td>
<td>27,602</td>
<td>6.23</td>
<td>11.5</td>
</tr>
<tr>
<td>Khammouane</td>
<td>331.0</td>
<td>6.5</td>
<td>49.5%</td>
<td>50.5%</td>
<td>51,298</td>
<td>6.45</td>
<td>20.3</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>755.8</td>
<td>14.9</td>
<td>50.5%</td>
<td>49.5%</td>
<td>112,256</td>
<td>6.91</td>
<td>21.8</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>5,087.3</td>
<td></td>
<td>49.5%</td>
<td>50.5%</td>
<td>783,376</td>
<td>6.49</td>
<td>22.1</td>
</tr>
</tbody>
</table>

1.3.2 Ethnicity

In terms of ethnicity, the region is populated by a wide range of ethnic groups, which could be divided into four main ethno-linguistic families: Tai-Lao, representing the majority population, and three ethnic minority groupings: Austro-Asiatic, Miao-Yao and Tibeto-Burman. The main groups in the lowland areas are Tai-Lao majority and some Austro-Asiatic groups. In the mountainous areas, numerous minority groups predominate as well as some Upland Tai that have relocated in these areas from Vietnam. Table 1-2 provides an overview of ethnic minorities the three provinces affected by the Project. Ethnic minorities, that is non-Tai-Lao groups, make up approximately 40.2% of the population.

Table 1-2: Ethnic Minorities in the Three Affected Provinces

<table>
<thead>
<tr>
<th>Province</th>
<th>1995 Census Data</th>
<th>1997 Population Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bolikhamxay</td>
<td>163,589</td>
<td>171,201</td>
</tr>
<tr>
<td>Khammouane</td>
<td>273,779</td>
<td>288,600</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>671,581</td>
<td>711,500</td>
</tr>
<tr>
<td>3 Provinces</td>
<td>1,108,949</td>
<td>1,171,301</td>
</tr>
</tbody>
</table>

Sources: 1995 National Census, Lao PDR

1.3.3 Livelihoods

Rice production is a major rural activity for both consumption and sale on the flood plains along the Mekong River and its major tributaries. In the foothills and mountains, rice is grown in paddies on the valley floors and on the hillsides as shifting cultivation in swidden fields. Rice production on the Nakai Plateau is insufficient to meet the annual needs of the population. In 50% of the plateau communities rice produced locally is deficient in order to satisfy the needs of the communities for at least six months of the year. To make up for the deficit, these communities traditionally depend on maize, starchy roots and general gathering in the forest to supplement their food as well as the sale and barter of Non-Timber Forest Products (NTFPs). People living on the Nakai Plateau are dependent on on-farm and off-farm production from the forest. In the context of the planned resettlement programme, sustainable food production is a critical component to improved livelihood and well-being as well as poverty alleviation. Sustainable food production also contributes to economic growth and social stability in Lao PDR.

The Downstream Areas along the XBF are typical of many lowland areas in Lao PDR with its dependency on paddy cultivation, fishing and some degree of non-agricultural income. Over 85% of the
population derive its income from agriculture. Irrigated paddy and rain-fed paddy yields in the lowlands are more than double that of the Nakai Plateau: 1,558 kilos/family versus 723 kilos/family per year (SMEC 1990). Dry-season riverbank gardens supply most of the vegetables for local consumption. Riverine forests and wetlands are an additional but limited source of edible plants, aquatic animals, NTFPs and herbal medicines.

The reliance on the XBF as a source of food is a central aspect of the lowland or “river-based” livelihoods. The seasonal changes in river flow and fish migration patterns determines how communities harvest and manage the natural resources of the river. Although there are very few full-time fishermen along the XBF, many, if not most, fish in the river at different times of the year. Fish is the main source of protein and most fish are consumed locally with only small surplus catches reaching local markets.

Livestock, as is the case throughout the country, serve as “banks on four legs”, that is a means of storing wealth and a source of cash in time of bad harvests. Communities along the XBF have access to roads and markets, health and education services and opportunities for wage income. The standard of living is higher on average than the Nakai Plateau, representative of the upland areas, but it should be noted that 40% are still classified as being under the Lao Poverty Line.

1.3.4 Forestry

There is significant interest in Lao PDR in implementing sustainable forestry management practices. The Forest Management and Conservation Programme (FOMACOP) was executed jointly by the GOL and the International Development Agency (IDA) of the World Bank, together with the Global Environmental Facility (GEF) and the Government of Finland. Under the Forest Management Sub-programme, village forestry was developed on a pilot scale as a partnership between the villagers and the GOL. These forest management systems have been evaluated in Savannakhet and Khammouane Provinces (see Appendix L). The experience being gained is of direct relevance to the proposed forestry model in the Nakai Plateau, as discussed in Chapter 23. More recently, the Ministry of Agriculture and Forestry passed Regulation 535 of June 18, 2001, on The Management of Village Forestry. However, considering the special case of the Nakai Plateau, this Regulation will not apply.

Forest resource management in Lao PDR is largely delegated to the Provincial Forestry Departments under the general oversight of the National Forestry Department in the Ministry of Agriculture and Forestry (MAF).

Three state-owned companies have had significant involvement in forest management and logging. One of these companies, the Mountainous Area Development Company known as Bolisat Phattana Khet Phoudoy (BPKP), has harvested logs from areas lying below El 538, within the Project reservoir. The EAMP contains more information regarding the history of logging on the Nakai Plateau. Many of the commercial logs have been removed from the reservoir area, but quantities of small commercial timber remain, potentially for use by the reservoir villages, and small-scale contractors.

1.3.5 Plantations

Plantations have been established in the Lao PDR. Between 1990 and 1993, about 5,200 hectares were established. In 1994, about 3,800 hectares were established while 8,800 hectares were established in 1995. For the period 1996 through 1999, about 10,000 hectares of plantation has been established per annum. Plantations will not provide sufficient resource to maintain the industry in Khammouane Province at its present production levels in the short to medium term (5-10 years).

1.3.6 Industry

Based on estimates of sustainable yield calculated in 1996 by Margules Pöyry, the forests in Khammouane Province can supply about 400,000 m³ per annum for the next 6 years, from regions other than the Plateau. This will then decline to around 100,000 m³ pa for the medium to long term, based on the existing resource, without plantations. With plantations, the longer-term yield may be increased to around 500,000 m³ pa if programs and support for such development is provided.
The wood processing industry utilizing logs from Khammouane Province is located around the towns of Ban Lak Sao, Ban Oudomsouk (Nakai), Mahaxai and Thakhek. Most of the wood processing industry is, however, concentrated in Thakhek. The existing forest industry in Khammouane Province is comprised of nine privately-owned sawmills, a plywood plant, a particleboard mill and seven sawmills established under joint ventures with BPKP. According to Margules Pöyry, the industry in Thakhek in 1997 was operating at about two-thirds capacity based on the sawmills’ own estimates. As of 2003, production has decreased and some of these facilities have ceased operations.

1.3.7 Handicrafts and Other Industry

According to Lao PDR’s National Statistical Centre, in 1994, Khammouane Province had a total of 28 industry or handicraft units of which 5 were large (more than 100 employees), 14 were middle-sized (from 10 to 99 employees) and 9 were small (less than 10 employees). By comparison, Bolikhamxay Province had a total of 348 units: 1 large, 11 middle-sized, and 336 small; Vientiane municipality had a total of 810 units; Xieng Khuang Province had a total of 493 units; and Luang Prabang Province had a total of 111 units.

1.3.8 Regional and Local Planning

Development in the region is under the authority of the respective provincial and district administrations. As in other Lao PDR provinces, there is a Governor’s and a Vice-Governor’s office in Khammouane Province. The Lao Women’s Union, the Lao Youth Union and the Lao National Front for Construction all are represented at the provincial level. Planning is directed by government decree, and five-year development plans are prepared. Land use at the regional and local level is generally governed by central government policy.

Because of the potential for development in the Project area, it is appropriate that the Project’s many aspects be coordinated and integrated with other regional development plans where there is either potential synergy or conflict. There are, in fact, several areas where synergistic benefits appear possible. These are health services, management of conservation and forest areas, sustained development of the local timber and wood utilization industries, improvements to agriculture and livestock management practices, and the development of local fishery expertise and irrigation potential.

1.4 THE NEED FOR RESETTLEMENT AND DEVELOPMENT PLANNING

The construction and operation of NT2 will result in a range of impacts, both beneficial and adverse, to the biophysical, socio-economic and cultural environments of the Project Area. In planning for NT2, the GOL and NTPC, with advice from the World Bank, have strived to integrate factors into the design which minimize adverse affects and enhance benefits. However, impacts will occur, and resettlement will be required, and in these cases all PAP will be adequately compensated for any adverse impacts.

There are three main areas of social impacts which have been the subject of resettlement and/or compensation and development planning.

i. The Reservoir Area on the Nakai Plateau

Over the period 2003-07, it is estimated\(^1\) that 1,127 households with approximately 6,219 persons will be relocated from 16 out of the 17 plateau villages (although only 15 villages will be fully relocated, and 1 village partially). All of these affected households (PAH’s/AP’s) are entitled to relocation to a preferred location, new housing and physical and community infrastructure. Also, an extensive range of livelihood restoration programme activities will be offered to them.

ii. The Project (construction) Lands

The acquisition of Project Lands for the construction of Project components will result in impacts ranging from disturbance, temporary and permanent land and asset acquisition, and this

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\(^1\) The figures are presented as estimates because of natural increase in populations. By the time any particular village is relocated, or a development program initiated, then the population would have grown in relation to the current baselines.
will require compensation to Project Affected Persons (PAP/AP's) and restoration of their livelihoods

iii. Downstream (of the Power Station) and the XBF

Communities downstream of the power station, along the XBF (and to a much lesser extent along the Nam Kathang/Nam Gnom) will experience varying degrees of impact on their livelihood and infrastructure resulting from changes in the hydrological regime, quality of the water and erosion patterns in the receiving water bodies.

1.5 THE NEED FOR ETHNIC MINORITY PLANNING

1.5.1 Ethnic Groups in the NT2 Area

Overall Objectives

The Ethnic Minorities Development Plans (EMDP) address the important issue of culturally sensitive development for Project Affected People (PAPs) on the Nakai Plateau and in the Downstream Areas, which will be impacted by the construction of the NT2 Project. The overall aims of the EMDPs are to:

(a) Avoid adverse project impacts and, where this is unavoidable, to reduce and mitigate these impacts through fair and effective compensation
(b) Significantly improve the livelihoods and standards of living of the ethnic minorities to be resettled on the Nakai Plateau; and
(c) Ensure that ethnic minorities on Project Lands (infrastructure) and in the downstream areas (mainly along the Xe Bangfai) are adequately consulted, fully compensated and participate actively in mitigation activities.

All of the affected people to be resettled on the Nakai Plateau are classified as Ethnic Minorities in the RAP, about 10% along the Xe Bangfai and approximately 45% for Project Lands and other downstream areas are also minority groups; hence, the need for EMDPs. World Bank (OD 4.20) and ADB Policy (1998) state that groups with a distinct social and cultural identity from the dominant society may be classed as vulnerable or disadvantaged in the context of the development processes. Hence the necessity of identifying specific needs and aspirations through prior consultation in order to create conditions for participatory planning, implementation and monitoring, minimizing potentially adverse effects and encouraging developments that will lead to economic and social improvements.

It should also be pointed out that all relevant material and recommendations in the EMDPs have been incorporated fully into the RAP and mitigation plans. This implies that there is no relevant information that is only found in the EMDP and not in the main plans. However, the EMDPs are much more detailed and provide background material justifying recommendations and conclusions. This integrated planning process, in effect a ‘mainstreaming’ of ethnic minority issues, is possible since all the groups to be resettled on the Nakai Plateau are classified as ‘ethnic minorities’ and culturally sensitive methods of consultation and planning have been used throughout the planning process. Regarding the ethnic minorities in the Downstream, similar culturally sensitive methods of consultation and planning approach have been used for those communities that are directly and indirectly affected by project impacts and that require compensation and mitigation.

Ethnic Minority Planning Objectives

A number of specific issues are addressed in the planning approach that takes into consideration Ethnic Minority issues:

- **Vulnerability:** It is acknowledged that Ethnic Minorities (EMs) are vulnerable groups and that the planning process addresses this in the various programmes and mitigation measures. It also recognizes that some ethnic minorities and communities are particularly vulnerable, in terms of livelihoods, economic well-being and power relations, and that additional measures are required. Measures take into consideration the differences and inequalities between ethnic
minorities/communities and how these may have adverse impacts on the more vulnerable groups, unless additional measures are taken.

- **Livelihoods**: EMDPs present both similarities and differences of the different communities in terms of food security and livelihood, and focus on the more vulnerable groups. This is particularly important for small minority groups that do not have the same level of technology and skills as other groups, and could be further marginalised if specific interventions are not devised, such as additional training and support during the transitional period.

- **Land Rights**: Strengthening community land tenure security and long-term rights to resources are a key issue for the long-term sustainability of minority communities. Legal documents, land certificates and the introduction of necessary legislation and decrees aim to secure the land and resources on the Nakai Plateau for resettlers and to guard against exploitation by outsiders.

- **Relocation and Site Selection**: Relocation of villages within or as close as possible to traditional administrative, cultural and spiritual boundaries in order to retain familiarity with the land and its resources and avoid cultural alienation and social disruption during resettlement and rehabilitation. Specific arrangements for a separate Vietic community and relocation of Tai groups to a village in Bolikhamsai have been planned.

- **Local Traditions**: The relocation process includes a number of cultural aspects. These include ritual and ceremonies for local spirits, territorial spirits and ancestors, village layout according to kin relations and clan membership, house designs and re-establishing ritual and cultural centres and organisations in new villages or replacing them due to project impacts.

- **Consultations**: Consultations and participatory planning have been a key feature in the development of the EMDPs and the SDP. Concerns and aspirations of affected peoples have been incorporated into project planning and have influenced project design, including relocation sites, livelihood options and mitigation alternatives.

- **Traditional Organisations**: The EMDPs include roles and responsibilities for traditional organisations and individuals in order to facilitate the mitigation and resettlement process at the village and household levels. Formal leadership positions and informal leaders and ritual specialists are to be included in to the planning and implementation. Greater representation on decision-making bodies at the district level are recommended.

- **Capacity building**: Capacity building and institutional strengthening of local institutions through training and support in order to have a more culturally-sensitive approach to planning and implementation. Institutional arrangements will provide for a social development and ethnic minority expertise.

- **Budget and Schedule**: Recommendations for ethnic minorities and specific additional measures for vulnerable groups have been included in RAP and mitigation budgets. This includes funds for organisations dealing with EM issues and consideration of local concerns in detailed planning of the schedules.

### 1.6 Overall Objectives and Principles of the SDP

Improving the welfare of families living in the Project area who might be adversely affected has been a joint objective of NTPC (earlier the NTEC) and GOL ever since the mandate for the Project’s development was agreed to in 1993. The evaluation of sites for resettlement and interaction with the PAP has proceeded in parallel with the development of engineering, environmental and financial plans.

Emphasis is being given to resettlement planning because failure to do so has resulted in otherwise successful hydroelectric projects elsewhere in the world being significantly blemished. All of the key parties: GOL, NTEC and NTPC, the financiers, and most of all, the people who live in the project area, have an interest in ensuring that resettlement is implemented in such a way that all families involved are better off as a result of the Project. This is the formal objective of GOL policy for the Project.

GOL, NTEC and NTPC have agreed that the approach put forward by the World Bank in its relevant Safeguard Policies is a blueprint for NT2, with the added goal that all families are to be better off soon
after relocation, rather than simply restored to their former living conditions. This is considered an appropriate and feasible objective given the amount of time given to planning, consultation and training prior to the physical relocation of the people, and the considerable budgets allocated to resettlement and social development.

To ensure a higher standard of program implementation, the Resettlement Action Plan (RAP) has been prepared in accordance with the World Bank Safeguard Policies: Operational Policy on Involuntary Resettlement (OP 4.12), Operational Policy on Cultural Property (OP 4.11) and Operational Directive on Indigenous People (OD 4.20), and more recently the ADB Policies on Indigenous Peoples (versions of 1998) and Involuntary Resettlement Policy OM section F2/BP (29 October 2003) and Operational Procedures (OP) OM Section F2/OP (29 October, 2003. In addressing these policies, the SDP has developed specific sections for each geographic impact area, dealing with:

1. Ethnic Minority Development Plans (EMDPs);
2. Resettlement Action Plans or Frameworks (RAPS, RFs).

The primary aim of these IFI Policies, and the NT2 Plans to address them, is to minimize the impacts on the affected population, to adequately compensate those who are adversely affected by the Project, and to ensure that resettlement is planned and implemented in a culturally sensitive and optimal manner.

In summary, the SDP has been developed under the following guiding principles, or Resettlement Provisions:

(i) Funding is to be assured, with the partners agreeing that the SDP is to be fully financed by the Project as an essential expenditure;
(ii) Resettlement planning to be integrated with the general project design from the earliest stages of project preparation;
(iii) GOL to develop and adopt the appropriate policies to ensure high standards of resettlement, including the development of an applicable Resettlement Policy for the Project;
(iv) Resettled people to have their living standards and income earning capacity promptly improved to at least the national poverty level, and to be provided adequate support during the transition period;
(v) Resettlement to be avoided or minimized wherever feasible;
(vi) Assistance from both international experts and the population directly affected is essential and will be obtained;
(vii) People to be resettled or directly affected will play an active role in the design, planning and implementation of the RAP;
(viii) The social and cultural cohesion of villages will be protected and resettlement sites will be as near as possible to previous villages;
(ix) Traditional organizational structures, religious beliefs and resource use will be incorporated into resettlement planning and implementation;
(x) Appropriate consultation and participatory methods are to be used, utilizing local knowledge in developing production systems that suit the people’s needs and the environment and which avoid dependency on project or government agencies;
(xi) Housing and community buildings will be provided in all resettlement sites, and reasonable access to all weather roads provided where practicable;
(xii) All plateau resettler houses will have electrical connections;
(xiii) Irrigation and domestic use water will be supplied to plateau resettlers; and
(xiv) The planning, implementation and compensation processes will be open and transparent.
1.7 **Timing and Duration**

Agreement to the Resettlement Plan, including budget and implementation schedule, by the affected villages, the Provincial Authorities, the GOL and the World Bank will be necessary before the Project shareholders and financiers finally commit to funding the construction of NT2. Thus, the SDP is scheduled to be agreed approximately six months in advance of Financial Close and about one and half years before the actual physical relocation of the first group of villages. The scheduling of the social and resettlement activities is also linked closely to the construction and then operation of the NT2 Project as a whole. A summary of the scheduling of key NT2 Project activities, and especially key Social and Resettlement programs, is provided in Figure 1-3.

As shown on Figure 1-3, while implementation of the SDP will formally commence at Financial Close, a considerable number of preliminary activities are being undertaken in advance, including the relocation of a pilot village. Other preparatory work will continue once there is a strong indication that the Project implementation will concretely proceed.
Figure 1-3: Summary of Indicative Schedule of Main Social and Resettlement activities

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**1.8 RESPONSIBILITIES OF GOL AND NTPC**

The responsibility to implement all commitments in the finally agreed SDP will be distributed between two bodies, GOL and NTPC. NTPC will have approximately USD 350 million of equity, and loan agreements for more than twice that amount. NTPC will thus be in a position to commit to the agreed expenditure on resettlement and related activities. The allocation of responsibilities is presented in detail in Chapters 6 and 16 relating to the Implementation Programs for mitigation on the Nakai Plateau (Reservoir) and along the Xe Bang Fai.

While the responsibility to implement all the commitments in the finally agreed upon SDP will be distributed between two bodies, GOL and NTPC, the premise of such distribution is that NTPC will be the primary responsible party for funding, for financial management, and for the provision of infrastructure, while GOL will be the primary responsible party for government liaison with the affected population, the actual relocation of households, the issuance of compensation payments, community development and health. Both the NTPC and the GOL will be fully responsible for livelihood restoration and/or development.

The earlier SDP of 2002 was incorporated in the Concession Agreement (CA) between GOL and NTPC, as Schedule 4 Part 1: Social Component (see Appendix A1), as signed in October 2002. It may be required to incorporate any further provisions or plans as detailed in the 2004 SDP into a revision of specific sections of the Concession Agreement.

**1.9 DEVELOPMENT AND STRUCTURE OF THE SOCIAL DEVELOPMENT PLAN**

The Nam Theun 2 Hydroelectric Project (NT2) has been under active planning and development by the Government of Lao PDR (GOL) and the Nam Theun 2 Consortium (NTEC) since 1993. The project was originally scheduled to start construction starting at the end of 1996 and begin commercial operations in the year 2000. However, it was delayed due to the financial crisis of the late '90s. It is now expected that construction will start in May 2005 and operation begin in 2009.

In 1995 GOL and NTEC confirmed that the decision had been made to proceed with the project according to World Bank standards. The decision to comply with World Bank standards so as to enable the World Bank to support the Project was based principally on two considerations. Firstly, it would be demonstrated to investors, multi-lateral agencies, lending institutions and other stakeholders that NT2 would comply with appropriate international social, environmental, economic and technical standards. Complying with rigorous standards and review processes will benefit all the stakeholders of the Project. Secondly, the financing will be more easily achieved, with World Bank support.

The additional development time has allowed for more research to be conducted and studies written, the environmental and resettlement plans to be prepared in greater detail, more independent assessments to be done and for a comprehensive Public Consultation, Participation and Disclosure (PCPD) Program to be implemented.

A first Resettlement Action Plan (RAP) was issued in May 1997 and was the subject of a 2-day public consultation meeting in Vientiane. It was made available to a wide range of stakeholders for review and comment.

In preparing for the second draft it was decided to have a separate volume dedicated to ethnic minority issues, i.e. the Ethnic Minority Development Plan (EMDP). Together with the RAP these two volumes formed the Social Development Plan (SDP), which was issued in September 2002. This was also made available to interested parties, including the GOL, its agencies, regional and local administrations, Non-Government Organizations (NGO), and the public at large.
Based on comments from GoL, World Bank, ADB and other stakeholders the third draft of the SDP was developed to specifically address the Xe Bangfai (downstream) and Project Lands issues. It was issued in December 2003 and had more details on feasibility and presentations.

A fourth version termed the Advanced Draft of the SDP was produced from May 2004 to July 2004, and then an Appraisal Draft (this version) produced in November 2004, based on further comments from mainly IFIs (WB, ADB and AFD), the POE and other stakeholders. A final version will be produced following appraisal, which will also include all relevant proposal arising from the local consultation program (many of which have already been included in this current version).

The SDP has now separated the three areas of Plateau, Xe Bangfai and Project Lands, plus an introductory section. Thus, the SDP is organised (presented) in 4 main volumes, as follows:

- Volume 1: Introduction and General Issues;
- Volume 2: Plateau/Reservoir Ethnic Development and Resettlement Plan;
- Volume 3: Xe Bangfai Compensation and Ethnic Minority Development Frameworks; and

Further to this major subdivision of the SDP, Volumes 2 and 3 are also divided into:

- Ethnic Minority Development Plans; and
- Resettlement Actions Plans and Frameworks.
CHAPTER 2
PROJECT DESCRIPTION

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2 PROJECT DESCRIPTION

The following description of the physical components of the NT2 Project focuses on those aspects that have the potential to affect people and which raise the issue of resettlement or compensation. After presenting a brief description of the Project and the Project area, defined as those areas where people are expected to be affected, the physical components of the Project are discussed, along with their predicted impacts and mitigation. The quantity and quality of the water discharged to the downstream areas will then be discussed, along with the associated impacts and their mitigation.

For a more detailed description of the technical components of the Project’s physical aspects, the reader is referred to the Chapter 2 and 3 of the Environmental Assessment and Management Plan (EAMP).

2.1 GENERAL OVERVIEW

The Nam Theun 2 Hydroelectric Project is to be built on the Nam Theun River (Nam Theun), a tributary of the Mekong River, in central Lao PDR. Key features of the Project include a dam on the Nam Theun at Keng None in Bolikhamxay Province. This dam will create a reservoir on the Nakai Plateau of maximum inundation of 450 km² at Full Supply Level (FSL), reducing in size to about 82 km² at its Minimum Operating Level (MOL). The Nakai Reservoir will have a catchment area of 4,013 km², most of which is in the Nakai Nam Theun NBCA, otherwise referred to as the NT2 Watershed.

Water from the Nakai Reservoir will be conveyed, via tunnels, to the power station, which will be located at the base of the Nakai Plateau near the town of Gnommalat. The elevation difference between the Nakai Reservoir and the power station is approximately 350m. Water will be conveyed from the power station via a tailrace channel to a regulating pond, located on the upper Nam Kathang River (Nam Kathang), designed to control variations in the flow of water released downstream of the power station. Water from the regulating pond will be diverted into both the Nam Kathang and the Xe Bangfai River (XBF). The water discharged to the XBF will flow via a purpose built 27 km long downstream channel, which will incorporate the reconfigured bed of a seasonal creek, the Nam Phit. The features of the NT2 Project are illustrated in Figure 2-1. The relationship of some of the main hydroelectric production features of the project are shown in the schematic diagram in Figure 2-2.

The total estimated cost of the NT2 is approximately US$ 1.3 billion. Preliminary construction is scheduled to start in 2004, with main construction commencing in 2005 and is expected to take about four and a half years. It is expected that a peak labour force of approximately 4,000 people will be employed.

The final detailed design of the Project will commence following negotiation of financial terms with lenders and GOL. Any modifications to the current design resulting from the detailed design process are not expected to have any substantial effect on the resettlement or compensation requirements of the Project.

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1 See Chapter 13 and 34 (Baseline Data) for a detailed description of Project Area communities.
Figure 2-1: Project Features Map
2.2 PROJECT REGIONS

The Project area covers two river systems in central Lao PDR, the Nam Theun and the Xe Bangfai Rivers, and extends from the lowlands along the Mekong River to the rugged Annamite Mountain Range along the Lao-Vietnamese border. Midway between the Mekong River and the Lao-Vietnamese border lies the Nakai Plateau, located approximately 350 meters above the adjacent plain. The proposed dam is on the Nam Theun situated on the Nakai Plateau, approximately 170 km upstream of its confluence with the Mekong River and 250 km east of Vientiane.

2.2.1 Nakai Plateau

The Nam Theun meanders along the relatively flat Nakai Plateau, to the Nakai dam site. There are wetlands, which include permanent and seasonal freshwater lakes, ponds and marshes. The Nakai Plateau also supports several areas of pine on its southern edge. Agricultural and forestry activities on the Nakai Plateau and associated road construction have had a significant impact on forests and wildlife, especially during the past decade. Other pressures on the plateau include the effects of shifting cultivation and fire, as well as hunting. Recent studies confirm that the area’s wildlife abundance is severely diminished as hunting and trading in wildlife products in the area have become intense and sophisticated, and include incursions by armed hunters. While some good wildlife habitat remains, poverty amongst local communities is increasing demand for fuel wood and meat from wildlife.

2.2.2 From the Nakai Plateau to the Theun-Hinboun Dam

Just downstream of the proposed Nakai dam site, the river dramatically changes character from the slow, 75 m wide river of the Nakai Plateau to a 40 m wide series of alternating rapids and pools cutting through the sandstone and mudstone rock pocketed by holes and crevices. The only tributaries of size between the Nakai Dam and the Theun-Hinboun Dam are the Nam Phao and the Nam Gnouang Rivers.

At this time none of this stretch of the Nam Theun supports permanent settlement until the confluence with the Nam Ngoy is reached, which is within the Theun-Hinboun Project head pond. The banks of the entire reach of the Nam Theun from the Nakai dam site to the backwaters of the Theun-Hinboun Project are not permanently cultivated, although some swidden fields do exist. The first reach below the Nakai dam site of about 12 km to where the Nam Phao flows into the Nam Theun has no permanent shelters, but people from villages along Road 8B in Khamkeut District use the river in this region to fish.

2.2.3 NT2 Catchment

The catchment area of the NT2 Project is about 4,013 km², mostly of the upper and middle reaches of the Nam Theun, the rest surrounding the Nakai Plateau and proposed Nakai Reservoir. The upper Nam Theun and three major upper tributaries begin in the Annamite Mountains at elevation of El 2,286 and flow south down the mountains to the Nakai Plateau, which is at an elevation of about El 525. The mountains which form the watershed are forested and are largely in near pristine condition, except for enclaves of human populations along the main valleys.

Approximately 87% of the Nam Theun catchment has been designated as the Nakai Nam Theun National Biodiversity Conservation Area (NNT-NBCA). In addition, the catchment area includes a portion of what is now designated as the Nakai Nam Theun-Phou Hin Poun Corridor. The conservation
values of this area have long been recognized. However shifting cultivation has affected and continues to degrade forests and habitats. GOL does not have adequate personnel or resources to control this degradation of forest and wildlife. IUCN and WCS concur in the view that current threats to both habitats and species are so great as to make implementation of an effective conservation program essential if the area’s wildlife and biodiversity values are to have any hope of being preserved.

2.2.4 XBF Area
The XBF catchment has a total area of 9,500 km² commencing at the spine of the Louang Chain Mountains on the Lao-Vietnamese border where the highest peak is just under El 1,650. The upper catchment is heavily forested with dense undergrowth in gullies and ravines, with a section comprising the Hin Nam Nor limestone karst area. In the river valley upstream of Mahaxai the slopes are gentle. The river channel meanders and is deeply incised in sandy banks. Downstream of Mahaxai the river flows through a well-defined channel until it reaches a V-shaped gorge through the Say Phou Xoy Range. The XB catchment downstream of bridge on Highway 13 is called the XBF plains. The plains are bounded by the Mekong River to the west and upland forest to the east. Flooding is common in the XBF plains mainly due to the backwater effect from high levels in the Mekong, and less so to the XBF’s own discharge.

The XBF is typical of many lowland areas in Lao PDR with its community’s dependency of paddy cultivation and fishing.

2.3 PROJECT ZONES
In order to facilitate an understanding and the planning of the NT2 Project, the project area has been divided into fifteen zones of activity and/or impact, as presented in Figure 2-3 and described below as follows:

Zone 1: Inundation Area (Nakai Reservoir)
Zone 2: Protected Area (Nakai-Nam Theun NBCA) and Corridor Areas
Zone 3: Resettlement Area
Zone 4: Nam Theun Downstream to Theun-Hinboun Dam
Zone 5: Theun-Hinboun Dam to Next Major Tributary
Zone 6: Road 8B, “Lak Sao Road” and Phou Phako Quarry
Zone 7: Power Station, Regulating Dam and Operator’s Village
Zone 8: Downstream Channel from Regulating Dam to Nam Phit / Xe Bangfai Confluence
Zone 9: Nam Kathang / Nam Gnom
Zone 10[A]: Upstream of the Xe Bangfai and Nam Phit Confluence
Zone 10[B]: Upper Xe Bangfai
Zone 11: Middle Xe Bangfai
Zone 12: Lower Xe Bangfai
Zone 13: 500 kV Transmission Line Route South of Road 13 Bridge
Zone 14: Road 8 / 12 - Road from Thakhek to Mahaxai and 115 kV Transmission Line Route West of Mahaxai
Zone 15: Mekong River

Zone 1: Inundation Zone (Nakai Reservoir)
Zone 1 is defined as the area below elevation El 538 on the Nakai Plateau that will be inundated by the Nakai Reservoir. Since the tributaries of the Nam Theun follow in relatively flat gradients out of the catchment area, this zone includes the channels of streams and rivers that will be affected by the rising water. Zone 1 has an area of approximately 640 km², which includes the reservoir with an area of 450 km² at FSL as well as the islands which will be formed by the reservoir at El 538.

Approximately 1,030 households and 5,684 people are encompassed by this zone. Much of the RAP is dedicated to planning their resettlement. The people will also be affected to some degree by the construction activities on the Nakai Plateau, which include activities related to the construction of the Nakai Dam, intake structure, saddle dams, and the headrace channel.
Figure 2-3: Project Zones Map
Chapter 2: Project Description

Zone 2: NT2 Catchment/NNT-NBCA and Corridor Areas
This area contains a portion of the Nakai dam site, the Nakai dam access road and a portion of Road 8b from the northern edge of the Nakai Reservoir. Some 5,500 people inhabit the NNT-NBCA in enclaves of human populations located along the main river valleys. Within this zone there will be areas set aside for the customary use for these inhabitants. These people are not directly affected by the Project, but have the potential to affect the performance of the Project. A significant increase in erosion from the catchment area would increase sedimentation in the Nakai Reservoir and ultimately shorten its life and efficiency. This sedimentation can be avoided if logging is prevented and shifting cultivation on the slopes of the NNT-NBCA is ceased or restricted. In addition, this zone includes two corridor areas, which cover an area of 770 km².

Zone 3: Proposed NT2 Resettlement Area
The proposed resettlement zone of 208 km² is situated on the rim of the Nakai Plateau escarpment on the southern edge of the Nakai Reservoir. At its northern end, the resettlement area abuts the Nakai Nam Theun Phou Hin Poon (NNT-PHP) Corridor, which links with the NNT-NBCA and the Phou Hin Poon NBCA. This zone currently consists of a mix of primary and secondary forest. Currently, this area contains the current villages of Talang, Nongbouakham, Nakai Tai, Nakai Neua and the District centre of Ban Oudomsouk. In October 1998 the entire zone contained 520 households. Of these 520 households, 283 households were in Ban Oudomsouk (of which 94 are below elevation El 540 and therefore are classified as inundation zone households and will be included in the resettlement). This area is also affected by some construction activities such as construction of the intake structure, some of the underground works, the portion of Road 8B which is to be relocated on the southern edge of the Nakai Reservoir and some construction camp activities.

Zone 4: Nam Theun Downstream to Theun-Hinboun Headpond
Zone 4 encompasses the riparian land of the Nam Theun from the Nakai Dam site to a point where the river meets the backwaters of the Theun Hinboun Reservoir, 32 km downstream of the Nakai Dam. Much of this zone is included in the NNT-PHP Corridor area and is largely bordered by Zone 2. One major tributary, the Nam Phao, joins the Nam Theun approximately 12 km below the Nakai Dam site. The riparian strip ranges from approximately three to five km wide, giving a land area of about 130 km². There are no established villages or settlements along this reach of the river, principally because of the topography features and difficult access.

Zone 5: Theun Hinboun Dam to the Mekong
Zone 5 includes the Theun Hinboun Reservoir and a riparian strip along the Nam Kading to the Mekong River over which issues are relevant.

Flows in the river below the Theun Hinboun dam are limited to the minimum release from the Theun Hinboun Reservoir as well as the significant spillage that occurs during the wet season.

Zone 6: Road 8B “Lak Sao Road” and Phou Phako Quarry
Zone 6 includes Road 8B from Ban Lak Sao south to approximately the intersection between Road 8B and the border of the Zone 2. Human incursion along Road 8B is likely to be the main form of impact. This is predominantly attributed to the numbers of people entering the area as a result of construction. The northern aggregate quarry, located at Phou Phako and to be used in the Nakai dam construction, is also included in this zone.

Zone 7: Power Station, Regulating Dam and Operators Village
Zone 7 is the area immediately surrounding the power station and extends to the regulating dam and the operators village, also known as Residence Nam Theun. Factors associated with construction and operation of the power station are critical issues to be considered from the inundation area of the regulating pond to the Xe Bangfai. The factors include water quality and quantity, diversion of flow into natural watercourses and re-routing of the natural stream drainage around the regulating dam.
While there are no permanent houses in these zones, there are many vegetable and banana gardens and some fields huts in the area of the regulating pond. The regulating dam and residence Nam Theun is directly next to the Village of Ban Keovilay and its agricultural fields, situated in an area of degraded forest or swiddens of this village.

**Zone 8: Downstream Channel from Regulating Dam to Nam Phit / Xe Bangfai Confluence**

Zone 8 includes the downstream channel from the regulating dam to the XBF confluence. The majority of the discharge from the power station will be transferred to the XBF via the downstream channel. This zone encompasses some of the most productive agricultural land which will be directly affected by the Project. The downstream channel will traverse rice paddy land for approximately 8km of its 27km length and will then flow in the modified Nam Phit. The zone encompasses any adjacent areas which are modified in conjunction with the NT2 Project, including spoil areas, embankments, existing irrigation schemes and other physical modifications.

Besides physical land requirements of the NT2 Project, other social issues stem from the flow introduced to the downstream channel and the water quality profile as it changes in the channel prior to release into the XBF. The interaction of water released through the power station with background wet and dry season flows from catchment areas adjacent to the downstream channel and their related water quality profiles are determinants for actual impacts on the associated human component.

Approximately 60 households, who either use or occupy the land on the channel alignment in this Zone, could be adversely affected by the Project, however, households along the channel may benefit from increased potential irrigation.

**Zone 9: Nam Kathang / Nam Gnom**

Zone 9 consists of the Nam Kathang / Nam Gnom and riparian land to its confluence with the XBF. The zone consists of approximately 1,632 households within 23 villages, and a population of approximately 12,722. The zone is important because of the potential for diverting additional water for support of various beneficial uses for the villages along the river, especially in dry season when water in the Nam Kathang is limited.

**Zone 10A: Upstream of the Xe Bangfai and Nam Phit Confluence**

This zone is located upstream of the confluence of the NT2 downstream channel, the mouth of the Nam Phit and the XBF. The zone contains five (5) villages, from Ban Na Phong to Ban Na Kio. Impacts in this zone will be limited to affects associated with the backwater effect created by the additional discharge entering the XBF at what is now the Nam Phit.

**Zone 10B: Upper Xe Bangfai**

This zone extends from the confluence of the downstream channel and the XBF to the Sayphou Xoy Ridge about 25 km downstream of district center of Mahaxai. Thirteen (13) villages are located in this zone from Ban Keng Savang down to Ban Tha Hat. The impacts of the NT2 project waters will be greatest in this zone, being the first stretch of river receiving the additional discharge. Issues are mainly related to increases in flows and river levels, changes in discharge regime, erosion of the river banks, effects on land use (river bank gardens) and effects on fisheries.

**Zone 11: Middle Xe Bangfai Zone**

The Middle XBF zone extends from the Sayphou Xoy Ridge to the Road 13 crossing. There are thirteen (13) villages in this stretch, from Ban Keng Kheng, just downstream of the ridge, to Ban Pa Lai, many of which have already started to practice dry season irrigation. Issues relating to this zone will be similar to those outlined for the Upper XBF Zone, although the severity of some of the impacts is expected to be less due to the larger size of the XBF and large natural discharge in this stretch of the XBF.

**Zone 12: Lower Xe Bangfai Zone**

The Lower XBF, or XBF flood plain, covers an area of about 50,000 ha ranging from Ban Khua Xe at the Road 13 bridge crossing and to Ban Pakxe Pak XBF at the confluence with the Mekong River 70 river kilometers downstream of the bridge. This zone encompasses the main flood plain of the XBF. The area is relatively densely populated, compared with other Project zones, with some fifty two (52) villages. The
zone contains approximately 40,000 ha of rice paddy fields on some of the better agricultural land in the Lao PDR.

The main social issues in this stretch relate to the beneficial reduction of flood levels in the Mekong resulting from the storage of Nam Theun flood waters in the Nakai Reservoir and the diversion of the Nam Theun to the XBF, and some flooding of lower riverbank gardens and possible changes in fisheries catches. The Lower XBF already experiences natural flooding almost every year. The Lower XBF will experience some special hydraulic conditions as a result of the NT2 Project, possibly resulting in a decrease of overall flood levels due to the reduction of flood levels in the Mekong River as a result of the diversion of flows from the Nam Theun to the XBF. As a result, the timing and duration of flooding is the main issue for this zone and the results are expected to be beneficial.

Zone 13: 500 kV Transmission Line South of Road 13 Bridge
Zone 13 extends from the bridge over the XBF on Road 13 to Savannakhet along the route of the 500 kV transmission line. Upstream of Road 13 bridge the 500 kV transmission line is included in zones 7, 8, and 10B.

The social factors relevant to this zone are mostly related to land use and human occupation. The 500kV transmission line route has been selected to avoid permanent settlements as much as possible.

Zone 14: Road 8 / 12 from Thakhek to Mahaxai, and 115kV Transmission Line West of Mahaxai
This zone consists of the area surrounding Road 8/12 which leads from the outskirts of Thakhek to Mahaxai, which will be upgraded as part of the NT2 Project. Other parts of the road are included in other zones.

Zone 15: Mekong River
Zone 15 consists of the reach of the Mekong River from the confluence of the Nam Kading to the confluence of the XBF and downstream to a point near Savannakhet. Flood stage elevation is the only concern. The entire Mekong Basin is a huge area, approximately 795,000 km² in extent, and of this the Nam Theun-Nam Kading catchment only represents about 1.8 percent of the total.

2.4 PROJECT COMPONENTS

The Project will divert discharge stored on the Nakai Plateau from the Nam Theun to the XBF, in doing so producing electricity for delivery to EGAT and EDL, utilising the difference in elevations between the Plateau and the Plain. To accomplish this certain infrastructure will be constructed and will include:

- A dam on the Nam Theun and necessary saddle dams to create the reservoir;
- Structures to divert flow from the reservoir to the power station;
- A power station with the necessary facilities for converting the energy to electricity;
- Downstream hydraulic control and conveyance structures to direct the diverted flows to the main channel of the XBF;
- Transmission lines to interconnect the power station switchyards with the EGAT and EDL power transmission systems; and
- Ancillary works to enable construction, operation and maintenance of the Project and to meet other obligations of NTPC.

This infrastructure is described in more detail below and location indicated in Figure 2-6.

2.4.1 Nakai Dam & Reservoir

Nakai Dam
The Nakai Reservoir will be formed by the construction of a gravity dam located at a sandstone outcrop in a horseshoe-shaped bend of the Nam Theun at Keng None. The dam will have a crest length of approximately 325 m and an approximate height of 48 m from the deepest foundation to its crest, which will not exceed El 541.5 m. The foundation will be grouted for seepage control. The dam will be constructed with a drainage curtain and a drainage gallery.
Spillway
The spillway will have at least four radial gates that will be constructed within the dam section. A flap gate will be added to the top of at least two of the gates to allow for discharge of small floods without operating one of the large radial gates. The spillway chute will terminate in a hydraulic jump-stilling basin with a concrete floor and retaining walls to reduce riverbed scour. The Project has been designed to handle the 24 hour inflow of 15,985m³/s and the 15 day inflows of 8,720 MCM without overtopping or endangering the safety of the Nakai Dam or the saddle dams. The spillway and reservoir will accommodate the passage of the 5,000 year average return period flood inflow, estimated to be 8,360 m³/s. Through the reservoir, the flood peak is attenuated so the peak passing over the spillway is less than the inflow peak. The spillway is also sized to work efficiently for any lesser flood and hydraulic model tests have shown that it will not experience damage with the passage of the PMF. An acoustic warning system will be installed on the dam crest and at the downstream end of the stilling basin to warn people when the Nakai Dam spillway will be opened.

To prevent problems from floating debris, a continuous floating trash/log boom will be attached to the reservoir banks upstream from the dam. The boom will be positioned diagonally across the reservoir to promote movement of logs and debris to the right bank. A concrete ramp will be provided to enable clearing of the logs and debris. The boom will be located to prevent floating debris from fouling the spillway and will include brightly coloured, visually prominent markers and appropriate warning signs to warn small boats and other lake craft not to approach the structure.

Outlet Conduit for Riparian Release
An outlet conduit will be provided next to the spillway to meet the downstream riparian release obligations. The riparian water will be drawn from the reservoir through a variable-level intake structure equipped with stoplogs. A trash-rack will be located upstream of the stoplogs. The outlet conduit will be equipped with a cone valve permitting discharge of riparian flows without scour or damage to the channel of the Nam Theun, and enabling aeration of the riparian flows. The outlet conduit will have the capacity to release a discharge equal to 2 m³/s continuously during the entire year. In addition, it will be able to accommodate up to 10 m³/s on a continuous basis for short periods of time.

Ancillary Structures at the Nakai Dam
Additional facilities at the Nakai Dam site will include:
- A spillway control building to house all necessary controls and equipment, direct current and uninterrupted power supply systems, stores, workshops, control room and office facilities, and employee amenities for short term accommodation;
- Communications systems to the power station, intake structure and hydrometric measuring stations;
- A building for the diesel generators and fuel storage facilities; and
- A 1.8 m high security fence, chain wire or equivalent to enclose the right and left abutments areas and the riparian release discharge channel area.

Nakai Reservoir
The full supply level for the Nakai Reservoir will be at El 538.0 m. At full supply level, the reservoir will have an area of approximately 450 km² and will hold 3,910 million m³ of water. The minimum operating level is designed to be at El 525.5 m. At this level the reservoir will have a surface area of approximately 82 km². The reservoir volume between full supply level and minimum operating level is approximately 3,530 million m³.

Saddle Dams
Thirteen earth embankment saddle dams will be constructed along the escarpment side of the reservoir rim to enable storage to the full supply level. The crest levels of these saddle dams will be set at El 542.25 m. Where the lowest point of a saddle dam foundation is below El 539 m, the saddle dams will be earth fill or earth and rock fill structures with an impervious core. A foundation cut-off of not less than 3 m depth will be used and the embankment shoulders will be constructed with materials from excavations and borrow areas.
Where the lowest point of a saddle dam foundation is at El 539 m or higher, the saddle dam will be designed as a homogeneous embankment with cross section geometry adjusted to the materials selected for construction. The materials will be selected to achieve the required stability and permeability characteristics. The upstream slope will be protected against erosion either by rip rap or suitable vegetation and a flat gradient designed to limit erosion and ensure the integrity of the water retaining structure. Grass or other suitable native vegetation will protect the downstream slope. Each of the saddle dams will be equipped with instrumentation consistent with modern international dam safety practice.

**Figure 2-4: Nakai Reservoir Water Level (period of simulation 1953 – 2000)**

![Average Nakai Reservoir Water Level (El)](image)

**Figure 2-5: Nakai Reservoir Drawdown Area with Average Yearly Rainfall**

![Surface Area (km²)](image)
2.4.2 Flow Diversion

Headrace Channel

A 4.25 km long headrace channel will be excavated in the reservoir floor, approximately 35 km southeast of the Nakai Dam, to convey water to the intake structures. Materials excavated from the headrace channel will be placed in approved spoil areas in the reservoir or used as landfill for roads, in saddle dam construction, or in the resettlement areas. Also, a rock trap will be constructed in front of the intake structure to retain loose material that might be carried into the intake and tunnels. Between the end of the headrace channel and the Nam Theun riverbed, a 5.1 km long corridor will be levelled and cleared. The levelling and clearing of this area will minimise head loss between the water at the minimum operating level and the start of the headrace channel.

A continuous floating trash/log boom will be constructed as close as possible to the entrance of the headrace channel to prevent floating debris from fouling the power conduit intake. The trash/log boom will also act as a floating marker and barrier to prevent small boats and other lake craft entering the headrace channel and the power conduit intake.

Intake Structures

The power conduit intake will be a concrete structure with four openings. Each opening will be equipped with trash racks and mechanised trash-cleaning rakes. The intake structure will be supplied with power from the power station. Additional back-up for operating the intake structure will be provided by a diesel generator. Initially, the water passage will be horizontal and lead to a rectangular section where two gates will be placed to control flow into the tunnels. The gates will consist of a fixed-wheel downstream service gate and an upstream guard gate, to be used for maintenance work and emergency access. The service gate will be used in conjunction with the guard gate to isolate the headrace tunnel from the reservoir, allowing for de-watering and inspection of the tunnel and surge shaft.

Underground Works

The headrace tunnel, pressure shaft and power tunnel will convey water from the intake structure at El 525.5 m to the power station at El 170 m, providing a net head of 348 meters. The underground works will include a sub-horizontal headrace tunnel connected to a pressure shaft and then to a horizontal pressure tunnel. In sections of the tunnels where the surrounding rock cannot contain internal water pressure within the required margin of safety, or to prevent seepage losses, the conduits will be steel-lined. Otherwise, the remainder of the tunnels will be concrete lined.

A series of surge shafts will be constructed to reduce pressure transients created in the tunnels during start-up and load-rejection operations. The surge shafts will be concrete lined and will be of varying diameters, increasing with height. The upper ends of the shafts will be at the ground surface. All parts of the headrace tunnel, surge shaft, pressure shaft and pressure tunnel will be accessible for inspection and maintenance.
Figure 2-6: Nakai Reservoir Plan
2.4.3 Power Station

Power Station & Generation Units

The power station will be located approximately 10 km north of the village of Ban Gnommalat, at the foot of the escarpment of the Nakai Plateau. The power station consists of a single, surface building to house six generating units, the administrative and operating offices, the control room and facilities for the management and control of the Project. Auxiliary infrastructure will include a workshop, garage, standby diesel generating facilities and water treatment and storage facilities. A minimum of 0.5 m freeboard above the level of the 10,000-year flood will be provided for each of the structures.

The main portion of the power station will be approximately 130 m long and 35 m wide. The location of the power station relative to the underground works is shown in Figure 2-7 with a cross-section through the power station presented in Figure 2-8. The turbines will include four Francis Turbine units, which will generate energy for delivery to EGAT and two Pelton Units, which will generate energy for delivery to EDL, the power station, and the operator’s village.

Figure 2-7: Underground Works

![Image of Underground Works](image)

SCADA System

A Supervisory Control and Data Acquisition (SCADA) system will interface with a water management system to monitor, supervise and control the elements of the power station and switchyard. This system will enable analysis of the reservoir, power station, generator, transformer and tailrace conditions. The system will enable checking against predefined limits and, if necessary, cause changes to the operation of the Project. All relevant information will be transmitted to EGAT’s national and regional control centres and to NTPC’s Vientiane office. The SCADA system will enable automatic operation of the Project. Information provided to EGAT will enable them to integrate the energy into their power network, but not to control operations.

Figure 2-8: Power Station Cross-Section

![Image of Power Station Cross-Section](image)
2.4.4 Downstream Hydraulic Control & Conveyance

Tailrace Channel, Regulating Pond & Regulating Dam

Water discharged from the turbines will be conveyed through a concrete transition stilling structure into an excavated tailrace channel. The tailrace channel will convey the water to a regulating pond downstream from the power station and downstream from the confluence of the Nam Kathang Noi and Nam Kathang Gnai rivers. The maximum discharge from the power station into the regulating pond will be 330 m³/s. The regulating pond enables the Project to be operated as an intermediate peaking facility by regulating, for environmental and social reasons, the downstream flows.

The purpose of the regulating pond is to limit water level fluctuation in the XBF, in particular during start-up, shut-down and load changing operations. It will be created by the construction of an additional dam consisting of two contiguous concrete structures, one spilling into the Nam Kathang and the other into a downstream channel. An earth and rock-fill embankment will be constructed to complete the downstream closure of the regulating pond. The regulating pond will have an active storage volume of 8 million m³.

The regulating dam will be equipped with gates for irrigation intakes and outlet channels. The capacity of the irrigation channel will be approximately 5 m³/s when the regulating pond is at minimum operating level. A trash/log boom across the regulating dam’s discharge intake area will be provided to trap floating debris, to provide signs to warn people not to approach the dam, and to stop small boats from approaching the discharge gates. An acoustic warning system will be installed on the dam crest and at the downstream end of the stilling basin, as well as along a portion of the Nam Kathang downstream of the regulating dam to warn people, upstream or downstream of the spillway, of the imminent opening of the spillway gates.

Nam Kathang Release

Water will be released from the regulating pond into the Nam Kathang River below the regulating dam at a rate equivalent to the natural inflows of the Nam Kathang Gnai and Nam Kathang Noi plus up to 15 m³/s of additional water during power station operation and 10 m³/s when the power station is shut down. The arrangement of the Nam Kathang River riparian release structure and the spillway stilling basin and end-sill will be designed to provide aeration of the discharge. To prevent problems from floating debris, a continuous floating trash/log boom will be attached to the reservoir banks upstream from the dam. The boom will be positioned diagonally across the reservoir to promote movement of logs and debris to the right bank. A concrete ramp will be provided to enable clearing of the logs and debris. The boom will be located to prevent floating debris from fouling the spillway and will include brightly coloured, visually prominent markers and appropriate warning signs to warn small boats and other lake craft not to approach the structure.

Downstream Channel

A 27 km long, excavated channel will direct flow from the regulating pond to the Xe Bangfai near the town of Mahaxai. The maximum capacity of the channel will be 315 m³/s, plus the discharge from the surrounding drainage, equivalent to a two-year flood event. The downstream channel will accommodate discharges from the power station, flow variations, local drainage and flood inflows without damage to the channel invert, banks or ancillary structures. The first 8.5 km of the channel will be lined with concrete, rock gabions or rock, with a bottom width of approximately 20 m. This section of the channel will be designed for an average velocity of approximately 4 m/s. Normal flow levels will be sufficiently above natural ground to permit the installation of gravity fed irrigation release points along the course of the channel. At Ban Gnommalat an inverted siphon will take the downstream channel under the Nam Gnom. The first section of the downstream channel ends at the aeration weir.

Downstream of the aeration weir, the channel will be lined with concrete, rock gabions or rock, with an invert width of approximately 21.5 m. The maximum regulating pond discharges in this section of the channel will be contained either below natural surface level or within levee banks, as required by the local terrain. It will allow surface run-off and floodwaters from local adjacent catchments to drain into the channel. The downstream channel will then pass through a karst outcrop, via a tunnel. Upstream of this tunnel, an emergency spillway will be constructed with a capacity of not less than 100 m³/s. This spillway
will protect the channel when discharge exceeds the design discharge, inclusive of flood inflow from the local drainage area. Discharge from the emergency spillway will flow into the Nam Phit, facilitating the discharge of water in the downstream channel. Downstream from the tunnel, the downstream channel will be designed as an erodible channel. Its geometry is made of a pilot channel of 20 m width and will extend on both sides, with a flat minor bed demarcated by levee banks, situated at 150 m from the axis of the pilot channel. Average speeds in the total unlined section will reach approximately 2.3 m/s and levee banks will have a height of approximately 2 m. This channel will deliver the water to the XBF. The gradient of the downstream channel will vary according to the different sections. The downstream channel starts at El 166.97 m and ends at El 142.06 m. Runoff from local adjacent catchments will be managed or regulated to ensure that the nominal release of 315 m$^3$/s can continue for all events up to and including the 10-year average flood. The downstream channel will be designed for withstanding overtopping and/or inundation from local catchment flood flows up to the 1000-year average flood event. The unlined channel will be designed to enable runoff to enter the channel, or drain to natural channels.

As noted above, the downstream channel alignment crosses through irrigated paddy land in the Gnommalat region and crosses several existing irrigation canals. The irrigation system is a gravity fed system, utilizing water from the Nam Gnom, located to the east of the proposed downstream channel alignment. During construction NTPC will provide temporary irrigation facilities where irrigation canals or channels are affected by the downstream channel and associated construction activities. Any land adjacent to the downstream channel which was used for agricultural activity prior the the project and is required to be used or is impacted during the construction period will be restored by NTPC to allow for the same agricultural activity to continue after the downstream channel is constructed. This includes providing for a permanent solution to the problem of the downstream channel crossing the existing irrigation canals, as well as restoration of land which may be used as working areas during the construction period. Regarding the restoration of the irrigation canals, the exact design of the works required to restore the system is not currently available and will be completed during the detailed design stage of the project. However, at this time two concepts are currently seen as being potentially feasible. One concept is re-establish irrigation on the eastern side of the downstream channel by providing facilities to irrigate using water directly from the Downstream Channel. The second concept is to restore the system by connecting the irrigation canals on the eastern and western sides of the Downstream Channel, through construction of siphons which would pass under the downstream channel. In either case, the existing irrigated area to the east of the downstream channel will not be lost.

In addition to maintaining the current irrigation system, NTPC will provide additional irrigation potential. Where the normal flow levels are above ground level the actual design and construction of the downstream channel NTPC will provide for 16 locations where irrigation pumps or gravity fed irrigation facilities can be installed. (Note: such irrigation equipment will not be provided by NTPC). The exact design and location of these irrigation access points is not currently known and will be determined during the detailed design stage of the project. To improve the concentration of dissolved oxygen and to reduce the concentration of methane and hydrogen sulphide in the water released through the power station, a U-shaped aeration weir will be installed in the downstream channel. It will allow water to spill over the structure.
Chapter 2: Project Description

Figure 2-9: Downstream Channel

- Regulating Dam
- Confluence B. Itak
- Ban Itak Crossing
- Natural Ground
- Aeration Weir
- Confluence H. Khama
- Confluence Nam Phe
- Confluence Ye Bangpa
Figure 2-10: Relative Location of Power Station, Regulating Pond and Dam, and Downstream Channel Tunnel
2.4.5 Transmission

Substations
The Project will include a 500/115 kV substation as well as a 115/22 kV substation, both of which will be constructed adjacent to the power station. Through these substations, it will be possible to supply energy to EGAT (500kV) and EDL (115kV to Thakhek and 22kV locally). Power supply for the substation auxiliaries will be tapped from two redundant auxiliary transformers located in the Project substation. Back-up electricity will be derived from the power station’s stand-by diesel generating units.

Transmission Lines
Electricity generated for EGAT will be delivered at the Lao PDR – Thailand border north of the town of Savannakhet, the capital of Savannakhet Province, via a 138 km long double circuit, 500 kV transmission line. To feed the electricity into the EGAT system an additional double circuit, 500 kV transmission line, approximately 160 km in length, will be constructed from the Lao PDR – Thailand border to a new substation at Roi Et, Thailand. The 500 kV transmission line within Lao PDR will be designed so that any future link to a switching station near Savannakhet can be constructed without interrupting the delivery of electricity to EGAT. The normal operating configuration of the 500 kV transmission line shall be two circuits in service, irrespective of the number of generating units synchronised to the EGAT system.

Energy for EDL will be transferred from the Project substation via a 70 km, 115 kV transmission line to a 115/22 kV substation transformer in Thakhek, the capital of Khammouane Province. EDL will also be able to off take approximately 20 MW of energy at the power station substation via existing and project built 22 kV transmission lines.

The transmission line towers will be constructed as self-supporting steel lattice structures. The normal spacing between consecutive towers will be approximately 450 m. The footprint of the towers will be approximately 10 m by 10 m. The precise route of the transmission line is still being defined, but will avoid houses or settlements and, where practical, agricultural areas. Minor compensation may be required as a result of the construction of access roads and the towers themselves.

Mekong crossing
Two towers will be placed in the Mekong River channel, one near the Lao PDR side and the other near the Thailand side of the river. Construction of the foundations is expected to occur during the dry season, when the Mekong River is at its lowest, to limit potential adverse impacts to the river.

2.4.6 Ancillary Works

Roads and Bridges
As part of the Project, NTPC will construct and/or improve a number of roads. These roads are shown in Figure 2-11.

Between Thakhek and Ban Gnommalat, the existing Roads 12 and 8B will be upgraded to provide a safe two-lane road. Existing bridges will be improved or rebuilt as needed to ensure they are in a safe and serviceable condition. Two additional bridges will be constructed where Road 12 and Road 8B cross the downstream channel, near the intersection of Roads 12 and 8B, and at the Ban Itak crossing, respectively. Another new bridge will be constructed where the road to Ban Thathot Ban and Ban Lao Saeng, both located on the western side of the downstream channel in the Gnommalat plain, crosses the downstream channel. The upgrading of these roads will facilitate the construction and operation of the Project.

Between Ban Gnommalat and Ban Oudomsouk, the existing road will be significantly upgraded. In the section leading from Ban Gnommalat to the Nam Kathang, the road will be raised above flood levels and drainage works will be installed. From the Nam Kathang to Ban Oudomsouk, earthworks and drainage improvements will be constructed to ensure a stable and safe all-season road. In addition, an access road will be built from Ban Oudomsouk to the resettlement community south-east of Ban Oudomsouk, partly through the rehabilitation of an existing road and partly through new construction.
A new road will be constructed to replace the section of Road 8B northwest of Ban Oudomsouk as this part of the road will be inundated by the reservoir. The new road will follow the southern rim of the Nakai Plateau from Ban Oudomsouk to Ban Thalang and cross the Nam Theun via a new bridge. The new road will join the existing Road 8B at Ban Nam Nian.

A new access road will be constructed to enable travel to the Nakai Dam on the Nam Theun. The road will be constructed from Road 8B, near Ban Phonkeo.

Existing roads will be upgraded and new roads will be constructed as necessary to enable access to the resettlement villages. New tracks to the resettlement houses and farm lots will also be constructed. These roads will have a maximum width of 3 m, within an 8 m wide right of way. Forest roads will also be constructed to assist with the management of the community forest areas.

In addition to the three road bridges, eight local community bridges will be constructed across the downstream channel to maintain existing access tracks. Determination of the exact locations of the bridges will be based on consultations with local residents. The bridges will be of two types:

- Five pathway bridges will be constructed. Each of these bridges will support two-tonne loads and will be dimensioned to accommodate small farm tractors up to 1.75 m wide.
- Three bridges will be constructed where the downstream channel crosses existing local public roads. Each of these bridges will be able to support four-tonne loads and will be dimensioned to accommodate vehicles up to 2.5 m wide.

The bridges will also incorporate two pedestrian refuges at each column location.

**Table 2-1: Upgrade of Existing Roads**

<table>
<thead>
<tr>
<th>Location</th>
<th>Route</th>
<th>Distance (km)</th>
<th>Width (m)</th>
<th>Pavement Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Thakhek Route 12/13 junction to the junction of Route 8 &amp; 12</td>
<td>8</td>
<td>55</td>
<td>9</td>
<td>Gravel</td>
</tr>
<tr>
<td>Route 8 &amp; 12 Junction to Ban Gnommalat</td>
<td>8</td>
<td>5</td>
<td>9</td>
<td>Gravel</td>
</tr>
<tr>
<td>Ban Gnommalat to regulating dam</td>
<td>8</td>
<td>5</td>
<td>9</td>
<td>Gravel</td>
</tr>
<tr>
<td>Regulating dam to the crossroads with the power station access road</td>
<td>8</td>
<td>4</td>
<td>7</td>
<td>Gravel</td>
</tr>
<tr>
<td>From the crossroads with the power station access road to Oudomsouk (Nakai)</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>Concrete/Gravel</td>
</tr>
<tr>
<td>Resettlement roads south of Oudomsouk (Nakai)</td>
<td>Other</td>
<td>30</td>
<td>7</td>
<td>Gravel</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>106</strong></td>
</tr>
</tbody>
</table>

**Table 2-2: New Road Construction**

<table>
<thead>
<tr>
<th>Location</th>
<th>Route</th>
<th>Distance (km)</th>
<th>Width (m)</th>
<th>Pavement Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oudomsouk (Nakai) to Ban Nam Nian (including Ban Signo Bridge)</td>
<td>8</td>
<td>41.3</td>
<td>7</td>
<td>Gravel</td>
</tr>
<tr>
<td>Dam site access road (a side road from Route 8b Ban Phonkeo to the Nakai Dam site)</td>
<td>Other</td>
<td>15.4</td>
<td>5</td>
<td>Gravel</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>56.7</strong></td>
</tr>
</tbody>
</table>
Figure 2-11: Planned Road Improvements and New Constructions
2.4.7 Residence Nam Theun

The Project will require an operator’s village, Residence Nam Theun, to be established for the permanent employees. Approximately 150 permanent employees will be housed at Residence Nam Theun to enable the ongoing operation and maintenance of the facility. The new village will be constructed near the regulating dam. Apart from housing, the village will include shops, a post office, a telecommunications centre, water and sewerage treatment plants, fire fighting units, an emergency power supply, a helipad, recreational and leisure facilities, a health dispensary and a school. The village will be accessible by a two-way, paved road.

Materials Sources

There are two main limestone quarries for aggregate production for concrete and other construction needs. The first is located at Phou Phako. It will provide materials for civil works largely on the Plateau. The second source is located at Pha Thung, near the downstream channel, and will supply material for the power station and downstream civil works. Laboratory results from both sites indicate acceptable mechanical properties and the materials are classified as non-alkali reactive. In addition to these two major sources, several smaller sources have been identified, including an area just downstream from the dam site from where sandstone can be quarried, and several borrow sites along Road 12. Potential sand sources are located near the construction areas.

Spoil Disposal Areas

A number of potential spoil disposal sites have been identified for placing excavated materials not utilised in the construction of the Project. Spoil materials will be generated mainly from the excavation of the downstream channel, and to a lesser extend by the headrace channel and other construction activities. Spoil, whenever possible, will be used to construct roads, saddle dams, for landscaping, and for fill in the resettlement areas. All spoil disposal areas and other areas disturbed during the construction period will be landscaped to restore drainage, encourage the re-establishment of vegetation, stabilise slopes and minimise visual impact once construction is complete.

Table 2-3: Potential Spoil Disposal Sites

<table>
<thead>
<tr>
<th>Potential Location</th>
<th>Description of Anticipated Spoil Disposal</th>
<th>Estimated Volumes (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nakai Dam</td>
<td>Spoil disposed upstream of dam, in dead storage of reservoir</td>
<td>500,000</td>
</tr>
<tr>
<td>Headrace Channel</td>
<td>Spoil used for construction of saddle dams, sediment traps, and the remaining would be placed in spoil deposit zones within reservoir or as backfill to create a platform at 540 El for Oudomsouk town</td>
<td>3,100,000</td>
</tr>
<tr>
<td>Headrace tunnel, surge shaft &amp; access addit</td>
<td>Spoil to be deposited in spoil location across from access addit on road 8B, in location with total capacity for 230,000 m³</td>
<td>155,000</td>
</tr>
<tr>
<td>Pressure shaft and tunnel, power station foundations, tailrace channel</td>
<td>Deposit in switchyard platform (~500,000 m³), platforms for power station (60,000 m³), and other areas around regulating pond, which have an approximate total capacity of 2,400,000 m³</td>
<td>1,300,000</td>
</tr>
<tr>
<td>Regulating pond</td>
<td>Spoil is to be used in construction of the regulating dam and deposited along edge of regulating pond</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Downstream channel</td>
<td>Over 5,200,000 m³ is estimated to be needed in construction of channel (banks as needed, access road parallel to channel as required). Preliminary sites have been identified along the downstream channel and further studies will determine their suitability for disposal of the 3,500,000 m³</td>
<td>8,700,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15,225,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
Construction Work Camps

Four zones have been identified for the development of construction work camps within the Project area. They will accommodate a maximum construction worker population of approximately 4,000. These zones, from north to south, are:

i. Dam area construction camp;
ii. Nakai work camp zone;
iii. Power station work camp zone; and
iv. Downstream work camp zone.

Additional zones have been identified in the vicinity of each major work site, outside and separate from the formal construction camps. These zones have been selected to accommodate the businesses, as well as their families, that will likely become established in the neighbourhood of the construction camps. To accommodate these businesses, it was assumed that land for four times the number of workers will be required at each of the work sites. Figure 2-13 indicates the locations of the construction work camps in relation to significant construction areas.

Table 2-4: Construction Work Camp Zones and Estimated Workforce Numbers

<table>
<thead>
<tr>
<th>Work Camp Zone</th>
<th>Peak Workforce Expected</th>
<th>Potential Followers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dam Site</td>
<td>800</td>
<td>about 1,600 to 3,200</td>
</tr>
<tr>
<td>Power Station Site</td>
<td>2,200</td>
<td>about 4,400 to 8,800</td>
</tr>
<tr>
<td>Nakai</td>
<td>600</td>
<td>about 1,200 to 2,400</td>
</tr>
<tr>
<td>Xe Bangfai</td>
<td>400</td>
<td>about 800 to 1,600</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 2: Project Description

Figure 2-12: Potential Locations of Spoil Zones (indicative only, pending detailed planning)
Figure 2-13: Potential Location of Work Camps and Number of Workers and Possible Followers.
CHAPTER 3

LEGAL AND POLICY FRAMEWORK

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3 LEGAL AND POLICY FRAMEWORK

3.1 INTRODUCTION

Involuntary resettlement is not new to the Lao people. Centuries of changing fortunes have seen villages and groups of villages forced to relocate to survive. What is relatively new is the need for people to relocate in order to make way for development of projects considered to be in the national interest, such as hydroelectric schemes.

The principles of protecting such project affected peoples are enshrined in the Constitution whereby the State promotes people’s ownership of land and guarantees equality whilst both obliging its citizens to protect the environment and aiming to shift the economy from subsistence based to commodity based. Further legislation promulgates these principles and offers specific protection for those required to resettle as a result of hydropower schemes in particular under the Law on Water and Water Resources and the Electricity Law described below.

Due in part to the size of the Project and previous experience on other hydropower schemes a number of pieces of legislation have been introduced to deal specifically with the Project. This legislation guarantees rights to those people who are to be resettled as a result of the Project including their rights to land and forest. Furthermore, the National Assembly has approved the agreement under which the concession for the Project is granted to NTPC detailing, *inter alia*, the obligations of both NTPC and the GOL to the resettlers.

This chapter reviews each of these aspects of the legal and policy framework in Lao PDR that protects, compensates and to some extent restricts the rights of the resettlers as follows:

- review of national laws and legal instruments that are of importance to the resettlers and the social development and resettlement program, including land and forestry rights;
- review of the national and Nam Theun 2 resettlement policies;
- review of the legislation that has been developed and approved specifically for the social and resettlement components of the NT2 project; and
- review of legal documents and policies that are not part of the usual national legislative framework including the Concession Agreement and the World Bank Policies

3.2 NATIONAL LAWS AND LEGAL INSTRUMENTS RELEVANT TO RESETTLEMENT

3.2.1 Introduction to the Legal Framework of Lao PDR

In 1975, the Lao People’s Revolutionary party (LPRP) abolished the 1947 Constitution and all prior legislation. Much of the existing legislation, especially in the forestry sector, has been issued under the framework of the current Constitution (established in 1991). The current legal system can be described as a hybrid of a civil code and common law system, driven recently more by the need to adopt a large body of legislation, rather than by the capacity to implement the legislation.

The National Assembly¹, first elected in 1992 under five-year terms, has been an active legislative branch by passing nearly 50 comprehensive laws, each requiring issuance of implementing legislation by the Prime Minister, ministries and local authorities by way of decrees and regulations. Despite this growing base as a civil law structure, the legal system remains in an early stage, difficult to interpret, implement or enforce, especially in the natural resources sector.

Key legislation in the natural resources sector includes a Forestry Law and a Water Resources Law enacted in 1996, Electricity Law in 1997, an Environmental Protection Law enacted in 1999 and a Land Law first enacted in 1997 and amended in 2003. This legislation and its implementing regulations provide

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¹ The NA has the authority to initiate, review and pass laws as well as approve State budgets and socio-economic development plans, which have included annual timber harvest quotas. (Constitution, Ch. 4).
a legal foundation for the consideration of how resettlement is to be planned and carried out for a large hydropower scheme like NT2.

An overview of the pertinent articles contained in this legislation is provided below. Of particular interest is Article 28 of the Water Resources Law, which states that in the case of hydroelectric projects, the owners shall provide appropriate livelihoods for the resettled population and pay for this out of project funds. The Electricity Act, (Article 14 and 18), states that licensees shall pay compensation for any damage to private and/or public properties or rights caused by their project. Furthermore, MAF Orders 54 and 377 (1996) require that villagers receive compensation for resettlement due to infrastructure or development projects approved by the Government. Whilst this legislation provides guidelines specifically for resettlement it is also important to note that these laws also impose restrictions upon citizens generally with regard to their use of the country’s resources. The resettlement policy will take into account these laws when planning guaranteed livelihoods for the resettlers, including the laws governing the use of forest products, agricultural land and fisheries.

3.2.2 The Constitution (August 14, 1991)

The Constitution is the supreme legal document in Lao PDR and all other legislation must be consistent with its provisions. Some of the Articles have been implemented by laws and regulations, but none related to the rights of ethnic minorities have yet been interpreted by the Court system. Clearly ethnic minorities and all Lao citizens have the constitutional right to protect their customs, their land and their culture and to enforce such rights against the State if infringed upon.2

Article 8: All ethnic groups have the right to protect, preserve and promote their fine customs and culture. All acts of division and discrimination among ethnic groups are prohibited.  
Comment: Since the resettlers of the Project are of a variety of ethnic groups, careful attention must be made to ensure that NTPC’s resettlement policy takes account of the customs and culture of each group. This principle relates not only to ethnic minorities but to all citizens, irrespective of their sex, or social status as further described in Article 22.

Article 13: The economic system objectives are the expansion of production and to transform the subsistence economy into a commodities economy.  
Comment: Whilst the customs and cultures must be maintained, Lao PDR is a developing country in need of foreign investment and currency that the Project is to provide. At a micro-economic level the Project must look to provide the resettlers with the means of moving beyond subsistence living.

Article 14: The state protects and promotes all forms of state collective and individual ownership.

Article 15: As for the land, which is owned by the national community, the state ensures the right to use, transfer, and inherit it in accordance with the law.  
Comment: Whilst the land in the Lao PDR is the property of the national community, individuals may acquire property rights akin to ownership. Where families are to be moved from their own land it is an important principle of the NT2 Resettlement Policy that the resettlers shall be granted permanent rights of ownership to the new land to the extent possible under Lao Law.

Article 17: All citizens must protect the environment and natural resources: land, underground, forests, fauna, water sources and atmosphere.

Article 22: Lao citizens, irrespective of their sex, social status, education, faith and ethnic group are all equal before the law.

Article 27: Lao citizens have the right to freedom of movement and residence as restricted by law.

2 The Articles of Law in this chapter are an English summary of the provisions - they are not direct quotations. The English translations of the laws themselves are attached in Appendix C and D.
**Chapter 3: Legal and Policy Framework**

**Comment:** For example, (i) the State must approve the use of all land, individuals are not permitted to ‘squat’ as further described under the Land Law below and (ii) the relocation of people from one province to another is regulated by and permission must be granted from the Ministry of Public Security. In addition, the freedom of movement must not be to the detriment of others, particularly current dwellers of an area or current resource users of an area, and thus the necessity to ensure Nakai resettlers are not unduly infringed upon by new immigrants, and that local peoples are not unduly affected by, for example, construction camp followers.

Article 28: Lao citizens have the right to lodge complaints and petitions and to propose ideas to relevant state organizations in connections with issues pertaining to the rights and interests of collectives or of their individuals. Complaints, petitions and ideas of citizens must be considered for solutions as prescribed by law.

**Comment:** This principle is incorporated into the NT2 resettlement process in two main ways (a) through consultation process, both prior to resettlement and during resettlement, and (b) the implementation of various grievance procedures.

### 3.2.3 Land Legislation

#### 3.2.3.1 The Land Law (revision of 21st October 2003)

The Land Law is the key legislation covering the rights and procedures regarding the framework for tenure, access, use and management of land, including forestland, by villagers and other parties within the NT2 watershed and resettlement areas. It is based on the Land Law of 1997 with minor amendments. PM Decree 3 and MAF Instruction 822 implement provisions of the Land Law regarding the allocation and zoning of forestland within village boundaries, Decisions of the Ministry of Finance (996, 997 and 998) govern land titling whereas PM Decree 150 governs land tax issues.

See Articles 70 and 71 below, MAF Orders 54 and 377 and the Electricity Law for sections governing the right of villages to just compensation for the taking of land by the State for the public good.

Article 3: Land within Lao PDR is the property of the national community (as stated in the Constitution, Article 15) for whom the State is the uniform central administrative representative throughout the Country and individuals . . . are assigned to effectively use the land . . . (only non-forest land held in private title or land held under a long-term lease can be transferred).

Article 5: The State protects the legal rights and benefits of those who have effectively received the right to use land including the right to transfer it.

Article 6: Individuals . . . have the duty to preserve land in good condition.

Article 7: Individuals or organizations are prohibited to squat on the land, the use of land must be approved by the State.

Article 13: The State authorizes Lao citizens to lease state land for a maximum period of thirty (30) years. Such lease may be extended on a case-by-case basis.

Article 17: The State may authorize individuals to use agricultural land:
- for growing rice and raising aquatic animals not to exceed two hectares per one laborer in a family;
- for fruit orchards and vegetable farming not to exceed three hectares, respectively, per one laborer in a family.

Article 18: The district may grant the right to use agricultural land within its administration.

Article 21: The State authorizes individuals to use forest lands (defoliated or degraded) not to exceed three hectares per one laborer in a family.

Article 22: The district . . . may grant the right to use forest land within its administration ..... (DAFO administers land use allocation in coordination with Lands Office).
Article 43: Land registration is to certify the legal use of land to individuals and organizations.

Article 63: The right of an individual to use land shall terminate when . . . (2) the State takes back the land in the public interest. (however, the landholder is entitled to just compensation for the taking by the State – see Article 70 below, MAF Orders 54 and 377 and the Electricity Law).

Article 65. Term of Lease or Concession of Land

For specific economic zone and special economic zone, the maximum lease or concession term of the land shall not exceed seventy-five (75) years and may be extended on a case by case basis by approval from the National Assembly.

Leases or concession of land area over ten thousand (10,000) hectares must be approved by the National Assembly.

The determination of actual lease or concession term shall be subject to the features, size and conditions of each activity.

Article 70: When it is necessary to use an individual’s land in the public interest, the State must make appropriate compensation for damages.

Article 71: In determining damages, there must be a Committee comprised of representatives of interested parties to determine the value of the damages.

These articles illustrate the inextricable involvement of the State in all aspects of the rights of individuals and organizations to land, from granting the tenure under Articles 3 and 43 to the use to which that land can be put under Articles 17, 18, 21 and 22. This governance is performed at both a central and district level through the relevant ministries. The location of the land for the NT2 project suggests that the rights to use are primarily under the control of the Ministry of Agriculture and Forestry.

3.2.3.2 Land Titling Legislation

To secure the tenure rights of the resettlers to their resettlement land, two issues must be addressed (a) the individual household rights to their homes and agricultural plots and (b) the communal rights of the villagers to the forest land. The Ministry of Finance is currently supported by the World Bank in its process of registration of land parcels in Lao PDR. This has focused primarily on municipal areas where the Land Titling Department systematically registers parcels of land in a town. The implementation of land titling program is guided by three Ministerial Directives: MD No. 996/MoF, 24 June 1998, MD No 997/MoF, 24 June 1998 and MD No. 998/MoF, 24 June 1998). The titling of agricultural and housing land for NT2 will be performed under the two first MDs, 996 and 997.

As described above, whilst the land within the Lao PDR is the property of the national community, individuals may have the right to use, transfer and inherit land. The land registration project under the above Ministerial Directions assesses an individual’s right to the land and if successful in showing such right is issued with a land title registered in a Land Register Book and Land Parcel Register Index specific to each village. Such registers are managed and maintained by the Provincial and Municipal Office of Land and Housing Management. Such title can be inherited, sold and be the subject of a court order (known as permanent assignment). It may also be leased or mortgaged (indefinite assignment). It is important to note that the legislation providing the registration flows through from the Land Law not the Forestry Law. The land title provides the owner with security of tenure for that land but it does not address the specific uses such land may be put to or classified as (for example agricultural or forestry land).

The NT2 Project, in conjunction with the Ministry of Finance intends to register the resettlement housing and agriculture land in the name of the individual households (husband and wife’s name shall appear on the title certificate) using the procedure based on the Ministerial Direction on Systematic Adjudication of Land Use Right No. 997/MoF.

Whilst it is vital to provide the resettlers with security of tenure it is also important for the success of the resettlement programme and the sustainable livelihoods of the resettlers, that the resettlers remain the owners of their houses, housing land, agricultural land and the irrigation system serving these lands during the whole of resettlement period. In accordance with Articles 15 and 18 of Direction No. 996, each land
certificate and the Land Registry Book will be endorsed to the effect that the resettlers are not permitted to sell their land during the 8 to 9 year Resettlement Period without the express permission of the Grievance Committee.

According to the law, before a land title can be issued the resettlers must show that they have a right to that land. To some extent this is achieved through PM Decree 193 establishing the boundaries of the resettlement and forest areas for the NT2 resettlers\(^3\). Article 9 states that this area will be allocated to the households to establish their houses and manage the forest area in sustainable manner. NTPC is currently working with GOL to finalize a PM Decree specifically confirming the rights of the resettler to land titles and to ensure that the land is not for the use of those other than the resettlers (see Section 3.8 below).

3.2.4 Forestry Legislation

3.2.4.1 The Forestry Law, No. 004 (October 11, 1996)

The Forestry Law provides the framework for all implementing legislation in the forestry sector. There have been many regulations and orders issued by MAF to implement in a consistent manner the key Articles in the Forestry Law. Of importance to the NT2 resettlement policy is the relationship with the Forestry and Land Laws, specifically relating to the allocation, zoning and use of forestland within village boundaries and protected areas.

Article 5: Natural forests and forestlands are the property of the national community whom the State represents in the administration and allocation of individual use and reasonable organization. Individuals and organizations shall have the right to possess and use trees, natural forests and forest land only when authorized by the authoritative agencies.

\textit{Comment}: the Nakai Plateau resettlers have been given this authorization (see section 3.5).

Article 7: Individuals and organizations having received forest and forest land allocations from the State for their preservation and management shall be entitled to compensation and interest, such as the use of wood, gathering of forestry produce etc (see also customary rights in Article 30).

Article 12: After allocation of forest categories and determining forest areas and lands, the Government shall assign rights to local authorities, from there the province shall assign to the district who shall assign to the village responsible.

\textit{Comment}: MAF Ministerial Authorization 0063/29-4-02 given to the Province to assign to the Nakai plateau resettlers the rights to use the Resettlement Area forests (section 3.5).

Article 13: The State assigns the use of degraded forest land to individuals and organizations in accordance to their labour and financial capacity for forestation or revival and to individuals for an area not exceeding three hectares per labour in the family (legal basis for allocation of degraded forestland to villagers under PM Decree 3 and MAF Instruction 822).

Article 14: Where necessary for public interest, forests and forest land may be used for other purposes, subject to prior approval from the competent authorities (approval derives from either MAF, PAFO, DAFO or the Government depending on the size of the forest area).

\textit{Comment}: A Resettlement Committee Regulation (Provincial Decree) will provide guidelines for the land and forest use planning on the Resettlement Area, specifying how urban, peri-urban and agricultural areas will be identified, and how claims to such areas by individuals or companies or other agencies will be reviewed and approved.

Article 16: Forests in the Lao PDR are classified into the following five categories:

1. Protected Forests
2. Reserve Forests
3. Production Forests

\textsuperscript{3} A further description of legislation dealing specifically with rights of the resettlers to land and forestry of the NT2 Project is provided under the section 3.5 describing the Nakai Plateau Village Forestry Association.
4. Regeneration Forests
5. Degraded Forests

Article 30: Traditional use of forests and forest land refers to the long-standing use of forests, forest land and forest produce as acknowledged by the society or law, which includes non-restricted wood collecting for fencing, firewood, forest produce gathering, hunting and fishing of non-restricted species for family consumption, and other traditional uses. Such traditional use shall avoid causing damage to the forests or forest resources, and shall avoid prejudicing the interest of individuals or organizations. The traditional use of forests, forest land and forest produces shall abide by the village forest and forest land regulations. (See also MAF Orders 377 and 54 and MAF Regulation 535 for scope of customary use).

Article 48: The right to possess and use forests and forest land is acquired through transfer, deliver or inheritance.

Article 50: Grant of rights to possess and use forest and forest land is decided by the concerned agencies with authority in allocation of forest and forest land for long term and stable possession and use by individuals and organizations based on contracts and specific regulations.

Article 51: The right to possess forest and forest land is the right to preserve and use the received forests and forest land for a purpose to meet the requirements for persons enjoying the rights of possession and use.

Article 59: The forestry management agencies include the Ministry of Agriculture and Forestry, the Provincial/Municipal Agriculture-Forestry Services, the District Agriculture-Forestry Offices and the Village administrative authorities.

Most of the forest land in the resettlement area on the Nakai Plateau will need to be classified as Production Forests under Article 16 of the Forest Law, which may further be zoned into each of the forest categories within village boundaries. If any area is to be designated Production Forest, it should comply with recent reforms in PM Decree 59 (2002) and its implementing MAF Regulation on Sustainable Management of Production Forest Areas.

Some areas within the resettlement will also be classified as Protection Forest, especially those areas containing forests on slopes greater than 25 degrees; and in which limited utilisation of forest products but no logging or other significant physical disturbance will be permitted. Although MAF has not issued a specific regulation for designation or management of protection forests, it is a stated objective in the Forestry Law, Article 17, and the Water Law, Articles 13, 29 and 30, to protect watersheds. Moreover, pursuant to MAF Instruction 822, protection forest zones designated as a result of land use planning and allocation within a village boundary shall meet the objective of protection of key watersheds.

Within the resettlement area, there are areas of degraded forests, and these areas will either be regenerated (Forestry Law, Article 20), used for forest plantations or allocated to villagers for tree planting and designated under the Customary Use provision in the Forestry Law (Article 30). Some will be re-classified as agricultural land.

3.2.4.2 PM’s Order 18 on Forest Management Policy 2002-2003 (Oct.4, 2002)

This most recent PM Order on Forestry Management states that the GOL continues its policy to strictly ban the export of logs from natural forests and further bans the export of sawn timber from natural forests (prior PM Orders 10 and 15 only encouraged the restriction on exports of sawn timber). This Order also requires production forest areas to implement PM Decree 59 (2002), Articles 9 and 11 (Appendix C 4.1).

3.2.4.3 Regulation on Establishment and Sustainable Management of Production Forest (3rd October 2003)

The operation of the Nakai Plateau Villagers Forestry Association will follow these regulations except for Article 18 on ‘Benefit Sharing from Log Sales, Harvesting in PFAs’. Apart from payment of relevant
government taxes, revenues will be paid to operation and maintenance of the NPVFA and dividend to villagers as income support (see Appendix C 4.2).

3.2.5 Law on Water and Water Resources, No. 005 (November 11, 1996)

The law on water and water resources recognizes water as the principal natural resource and the need to regulate, exploit and administer both its use and the use of plants, animals and minerals found within aquatic environments. Of particular relevance to the issues of resettlement are the following:

Article 25: The Government promotes the development and use of water resources in small, medium and large scale energy production from water sources with such potential. The use of water resources shall consider its potentials and impacts.

In building a hydropower dam, consideration shall be given to the preservation of: the sources of water, forests, the environment, flood protection, water supply, irrigation, water transport, fishing and fisheries, aquatic life and others.

Article 28: When resettlement is necessary from the area and vicinity of water sources development projects, project owners shall provide assistance in providing appropriate shelters and livelihoods for the resettled population. The funds used to finance resettlement, assistance or compensation to the population shall be included in the projects’ investment.

Article 29: ... there are still strict obligations to preserve and rehabilitate and maintain forest resources and forestlands in water catchment areas in conformity with the water source allocation plan, forests, land, and seasons, specifically in the area of water origins or around water sources.

These articles provide the basis of the Project’s broad obligations for environmental mitigation but also for assisting the resettlers, whilst recognizing the potential for hydropower in Lao PDR. As discussed in Chapter 28 and under the Concession Agreement (Appendix A), the Project has included the costs of resettlement in its overall investment budget.

3.2.6 The Electricity Law No. 02 – 97 NA (Effective August 29, 1997)

This Law requires a license for the generation and transmission of electricity. Article 14.2 states that “the investor shall submit an environmental impact evaluation which shall include the estimated costs of potential damages and relocation of local residents who may be affected as a result of such electricity production project”. Article 18.7 states that “the licensee shall pay for damages to the environment, living conditions and properties of residents, or compensate for costs of relocation of residents”.

3.2.7 Road Law (April 3, 1999)

Article 19: If the road construction works in various classes need to use the land owned by a private person or by an organization having the right to use it by law, the owner of the land to be expropriated shall receive a reasonable compensation.

3.2.8 Legislation Relevant to Trafficking in Humans

The NT2 Project will address the potential problem of human trafficking, especially during the construction phase of the project, due (a) to the presence of a large labour force and camp followers, (b) the considerable overland haulage traffic, and (c) in the longer term, due to the greater accessibility afforded to and from previously remote villagers. The Lao PDR does not have a law that exclusively addresses human trafficking. However, several provisions of the Penal Code (dated December 1989) can be used to prosecute trafficking-related offenses, such as:

- Article 92 prohibits the trading or abduction of persons;
- Article 119 establishes criminal penalties for rape; and
- Article 122 and 123 prohibits prostitution and procuring for prostitution.

The Labour Law (dated 14 March 1994) also protects against workplace aspects of trafficking, such as;

- Article 4, prohibits forced labor;
- Article 33, prohibits employment of women in potentially injurious work and night work; and
• Article 34, prohibits strenuous work during and shortly after pregnancy.

The Lao PDR is also a party to several international treaties that address human trafficking. The Ministry of Justice and others are considering possible amendments or additions to the legal framework to strengthen the prosecution of trafficking offenses.

3.3 National Resettlement Policy and Guidelines - 2003

An examination of the relevant laws and decrees indicates that the Lao people have certain basic rights and obligations in relation to resettlement. Among these the right to receive compensation for land withdrawn by the State is paramount. However, while compensation is an important factor in instances that call for resettlement, it is not the only factor. Successful resettlement requires that detailed plans are prepared in advance and that such plans are based on a general set of principles and rules that would apply to the preparation and implementation of these plans.

The National Resettlement Policy is one such set of principles and rules. A first draft of this policy, formulated by the Chairman of the NT2 Resettlement Committee, was discussed at the NT2 Resettlement Policy Workshop in Thakhek in September 1996, attended by more than forty national, provincial and district government officials and representatives from other organizations. Subsequently, changes and suggestions resulting from the participants were incorporated into a second draft of the policy. This and further drafts of the policy have been reviewed separately by the World Bank, the Panel of Experts and the Asian Development Bank. Workshops including government officials from a range of ministries have also been used in the development of the policy by STEA 4 (see Appendix C9.1 for the final draft of the policy).

The policy is to be implemented by way of a PM Decree (the latest draft of which is attached in Appendix C9.2). The provisions of the Decree aim to:

(i) help integrate social dimensions in development projects,
(ii) address measures to mitigate adverse social impacts, in a particular focus on vulnerable groups; and
(iii) have a comprehensive approach to address social issues in development projects.

The Decree also aims to ensure that mitigation measures, including compensation relocation and economic restoration of affected people are carried out in accordance with the provisions and stipulations of the Constitution and the various relevant applicable Laws and Decrees of government taking into consideration special needs and features of the various ethnic groups of the Lao PDR.

The STEA is assigned to issue requisite Implementation Regulations and Resettlement Technical Guidelines in support of this Decree and to regulate resettlement planning and implementation activities in development projects nationwide, and the latest draft of these (dated 15 April 2004) is attached in Appendix C 9.3.

3.4 Nam Theun 2 Resettlement Policy

3.4.1 Development of the Policy

Development of a resettlement policy specific to NT2 has taken place in parallel with the preparation of the draft national policy. It has been undertaken in large measure by the NT2 Resettlement Committee,

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4 The material presented in the Policy is generally culled and assembled from several sources. Major among these include the ADB’s Handbook on Involuntary Resettlement, World Bank’s Draft Source Book on Resettlement, Resettlement Guidelines prepared under ADB TA 3133-LAO, “Strengthening Social and Environment Management in Lao PDR”, July 2000; and Resettlement Guidelines prepared under the WB funded “Hydropower Development Strategy for the Lao PDR” in September 2000. Additionally, information presented in the Policy is also drawn heavily from several development projects in Lao PDR as well in neighbouring countries. Where relevant, international best practice examples are presented in the Guidelines with an objective to bring these Guidelines to acceptable international standards, without losing focus on the country context. The final policy and the decree have been prepared under ADB loan 1857: Environment and Social Program. The policy and Decree have been approved by Cabinet and the Decrees scheduled to be issued by the Prime Minister within 2004.
which was set up by GOL in 1995. The steps in the process to prepare a project-specific resettlement policy have been:

- March 1997 - Review by NT2 Study of Alternatives; review by GOL Workshop; and discussion by Public Briefing Session.
- June 1997 – 2-day Public Consultation Workshop; review by Panel of Experts and by International Advisory Group.
- February 1998 - Approval by State Planning Committee of NT2 Resettlement Policy.
- January 1999 - 2 day Public Consultation Workshop on RAP.
- September 1999 - GOL approval of RAP, including NT2 Resettlement Policy.

The Policy was last discussed at the GOL Committee of Planning and Cooperation on July 22, 2002. At that time a few changes required to take into account comments and the results of discussions on the Concession Agreement described below.

3.4.2 Nam Theun 2 Resettlement Policy

The NT 2 Resettlement Policy sets out the objectives of the policy, the geographical and impact areas it covers, and then the policy guidelines. It is presented in full below.

It should be noted that the area/populations of policy coverage is not restricted to those listed in Article 2, but includes all areas and persons affected by the Project as of the eligibility cutoff date of the household survey conducted in 2003. In addition, Article 2 clause 2.1 will also includes PAPs on the Nam Theun downstream of the dam, and those affected by substations. In articles 4 and 5, all affected persons are entitled to rehabilitation as well as compensation. Article 5, clause 5.8 may be revised to ensure that all affected people occupying land - regardless of proof of recognizable rights or claims to land - will still qualify for entitlements. They may not be entitled to compensation for loss of land but are still entitled to compensation for their loss of livelihood and legitimate assets, and to other assistance so that that they will be at least as well off as they would have been in the absence of the Project.

\[\text{Nam Theun 2 Resettlement Policy (translation of the 1998 policy)}\]

**Article 1: Objectives of the Resettlement Policy**

1.1. This policy outlines the basic principles and measures governing the resettlement, provision of agricultural and forestry production areas and compensation to the population of the Nam Theun 2 Project zones, with the view of upgrading and ensuring sustainable livelihoods.

1.2. It provides that the population participates in the consultation, planning and design process of their new settlement and production areas.

1.3. It provides for the application of special measures as required towards ethnic minorities and vulnerable persons to assist them to take care of their needs and foster self-reliance.

1.4. It provides for the construction of infrastructure in new settlements areas in accordance with designs approved by the Resettlement Committee in the best interests of the population in and around the Resettlement Areas.

1.5. The population to be resettled should materially improve its standard of living after relocating; individual household incomes should be above the national poverty line within four years after physical relocation and should be supported in the interim period.

1.6. The policy provides for replacement land being available to all those interested; cash compensation would only be considered for those with specific plans to permanently move out of the district.

1.7. The resettlement and rehabilitation plans will be conceived and executed as specific development plans.

**Article 2: Policy Areas**

The areas of this policy are those where the population is directly and indirectly impacted by the Nam Theun 2...
Project, including:

2.1. Khammouane Province
- **Nakai District**: The dam and reservoir area covers the territory of 15 villages in Nakai District.
- **Gnommalat District**: The powerhouse, weir and water basin, outflow channel from the powerhouse and first portion of the high voltage transmission line.
- **Mahaxai District**: Outflow canal to the Xe Bang Fai and the middle portion of the high voltage transmission line.
- **Thakhek District**: The 115kV transmission line, from Mahaxai to Thakhek.
- **Nong Bok and Xe Bang Fai Districts**: Xe Bang Fai downstream.

2.2. Savannakhet Province
- **Xaybule**: May affect by releasing water from the reservoir and to Xe Bang Fai and remaining portion of the high voltage transmission line.
- **Khanthanbouly District**: and remaining portion of the high voltage transmission line.

2.3. Bolikhamxay Province
- **Khamkeut District**: One portion of the reservoir on the dam's right side, the new road, and two villages: Ban Sop Hai and Ban Nam Nian

The NT2 Resettlement Policy is directly linked to the above Project components and operation of the powerhouse, dam and reservoir.

**Article 3: Selection of Resettlement Areas**
Based on the preferences of the reservoir population and in accordance to the Decree 193/PM of December 2000, three areas have been selected for resettlement:

*Area 1*: Near Ban Oudomsouk (Khammouane Province) covering an approximate area of 1,600 hectares.

*Area 2*: On the east of Ban Done and Ban Khone Khan, Nakai District (Khammouane Province), covering an approximate area of 10,300 hectares.

*Area 3*: On the west of Ban Nakai Tai and Ban Nakai Neua (Khammouane Province), covering an approximate area of 10,900 hectares.

**Article 4: Compensation Policy**

4.1 Compensation based on the principle of replacement cost will be provided for agricultural lands, gardens, building land, fruit trees, houses, schools, hospitals, dispensaries, temples, cemeteries, markets, buildings and any other assets and activities that will be affected.

4.2 The Project will provide housing and agricultural-forestry production land for each household in the reservoir area at the time of the population and assets survey. For any household not wishing to receive any such land or housing, the Project will pay cash compensation at replacement cost based on the local market value prevailing at the time.

4.3 Fruit trees shall be compensated according to the agreement between the concerned parties and/or locally prevailing market prices.

4.4 Schools, hospitals, dispensaries, markets, temples, clubs, cemeteries, roads and other constructions owned by the State and the village will be re-built by the Project or will be otherwise compensated for at their replacement cost.

4.5 The dismantling of old houses and construction cost of new replacement houses will be, jointly with the owners, determined by the Project and will be compensated. Transportation to the Resettlement Area (including wood prepared by the population) and labor and equipment provided by each family will be compensated. Each house may be designed by the population itself according to their preference. Moving of household goods including livestock will be arranged at no cost to the household.

4.6 Villagers resettling outside the Resettlement Areas (to other localities) will receive full compensation from the Project in one single payment for agricultural land, gardens, fruit trees, houses, building land and other losses and will be provided transportation to their destination. Any self-resettlement proposals must be reviewed for feasibility and approved by the Resettlement Committee before agreement to cash payment.

4.7 Food security will be provided to households until the Policy income target has been met, according to the Regulations.

4.8 All persons that sustain a loss under the Project will be entitled to adequate and prompt compensation or replacement of assets lost.

4.9 Under this policy, regulations will be made that classify those who are entitled to compensation and the level
4.10 Households in the Project’s Reservoir Area as of October-1998 will be entitled to compensation and have been registered, including those household of natural growth and household of any government employees who have been assigned to the area since the registration process.

**Article 5: Other Provisions**

5.1 The resettlement transition period (from relocation to self-sufficiency) will be minimized and adequate social, economic and environmental support will be provided during this period.

5.2 Those to be resettled will, as a matter of their preference, be relocated on the sites situated on the Nakai Plateau in areas as mentioned in Article 3. Those few households wishing to relocate off the Nakai Plateau will have that option and will be paid adequate compensation.

5.3 Villages will be resettled as villages and according to their traditional groupings; where two or more villages are to be combined in a new location, agreement of all concerned villages will be obtained. Living standards in the new villages must be better than before.

5.4 New villages will be provided with appropriate community infrastructure as specified in the Resettlement Action Plan.

5.5 Insofar as changes in household economic activities are proposed, the replacement opportunities will recognize the ability and interest of the persons affected; new activities will be introduced on a sound economic basis, with risks identified and understood.

5.6 All compensation, relocation and rehabilitation costs will be borne by the Project, with funds disbursed through an appropriate institutional structure.

5.7 All those affected by the Project will have the same basic rights, although entitlements may vary.

5.8 Proof of residency or traditional use from the Village administration is required to establish the right to compensation.

5.9 The allocation of farm/house lots will recognize family composition; households with large numbers of present or future labor-force members will be considered for allocation of plots that can accommodate larger or expanding households.

5.10 The socio-cultural composition of the affected villages will be recognized in the resettlement plans and their implementation. Special measures will be planned for vulnerable groups.

5.11 All affected persons will have effective access to grievance procedures that would deal with problems that may emerge at the household or village level.

5.12 The program of resettlement will be linked to the Project construction program; reservoir impoundment will not proceed until all affected persons have been relocated in accordance with the approved resettlement schedule.

5.13 Any host people affected by the resettlement program will be compensated according to the degree of the impact.

**Article 6: Implementation**

6.1 The NT2 Resettlement Committee will be responsible to carry out the effective implementation of the Resettlement Action Plan and for the coordination of the organizations involved; the Resettlement Committee will instruct the Resettlement Management Unit (RMU).

6.2 The NT2 Resettlement Committee and the Resettlement Management Unit (RMU) will prepare the Regulations under this policy.

6.3 The NT2 Resettlement Policy is to be recognized and assisted by Ministries, Organizations equivalent to Ministries, Committees and Rural Authorities for effective implementation.

**Article 7: Validity**

7.1 The policy replaces the NT2 Resettlement Policy No. 023/SPC, dates February 1998 and will be come effective on the date of signature entered upon.

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### 3.4.3 Resettlement Committee Regulations

While the NT2 Resettlement Policy (and more recently the Concession Agreement of 2002) is the overarching framework describing the resettlement principles, it specifies (article 6.2) that more specific regulations will be issued dealing with individual procedures for the successful implementation of the policy. It is the intention that, as detailed planning and implementation proceeds, additional Regulations under the Policy will be passed by the Resettlement Committee, at the recommendation of the
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Resettlement Management Unit and NTPC. Together, the Policy and Regulations will form the basis of GOL authority under which resettlement and compensation take place. These regulations are executed by the provincial governor and therefore have the authority of a Provincial Decree.

The following Resettlement Committee regulations were issued prior to the signing of the Concession Agreement, and are now incorporated into this Concession Agreement.

(a) **Resettlement Committee Regulation Number 1 - Eligibility**

Lists the categories of people eligible to receive entitlements and a process of updating the register of such people including due to natural growth of households. Further details of the eligibility of such people and hence the identity of those whom NTPC is obliged to consider is detailed in the Concession Agreement.

(b) **Resettlement Committee Regulation Number 2 - Entitlements**

Lists the entitlements for items such as housing, cash, infrastructure and production assistance for the different categories of people listed in Regulation Number 1.

(c) **Resettlement Committee Regulation Number 3 – Downstream Areas Impacts**

Describes the survey and monitoring work NTPC shall undertake one year prior to commercial operations and at approximately two and four years thereafter.

Resettlement Committee regulations which will be drafted and executed prior to Financial Close will include:

- RC Regulations on the process for issuing land title to the resettlers, and the endorsement of such land titles to ensure their non-transference during the resettlement process;
- RC Regulations on the process of forest and land use planning and allocation in the resettlement area, including the identification and process for delimiting urban, peri-urban and agricultural areas;
- RC Regulations regarding the right each future resettler family to access and 5m3 of timber from current village forest (to be inundated by the NT2 reservoir);
- RC regulations on the per diems and other benefits to accrue to GOL staff working on the NT2 project;
- RC regulations regarding establishment of new business's and the management of camp follower's and in-migration in the area of the NT2 Project during the construction period;

### 3.5 THE CONCESSION AGREEMENT

#### 3.5.1 Introduction

A review of the national legislation provides for the general rights of the resettlers and the obligations of the owner of a large hydropower project. However, the specific obligations of NTPC, and to some extent the GOL to satisfy these requirements is set out under the Concession Agreement (“CA”) that was signed on 3 October 2002 between NTPC and the GOL, represented by the Committee for Investment and Co-operation and acting for and on behalf of the Lao PDR.

Under the CA, the GOL grants NTPC the right to implement the Project on a build, own, operate and transfer basis for a period of 25 years (the “Concession Period”) following the occurrence of the Commercial Operations Date, subject to any extensions for Force Majeure.

The CA has been approved by the National Assembly on 12 October 2002. As such the rights and obligations of the GOL and NTPC including in relation to social and resettlement issues are approved by the highest legislative body in Lao PDR. Indeed, it is the CA that requires the production and approval by the GOL of this Resettlement Action Plan (Clause 30.1).
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The GOL and NTPC acknowledge that the Project will cause environmental and social impacts in the Lao PDR and that NTPC and, where applicable, the GOL will be responsible for addressing, alleviating and/or remedying such impacts.

There are two main sections in the CA are dealing with the resettlement of the affected population and set out how the GOL and NTPC will comply with and implement the Nam Theun 2 Resettlement Policy in order to further the Project’s resettlement objectives:

- Clause 30; and
- Part 1 of Schedule 4 of the CA

3.5.2 CA Schedule 4, Part 1 (Social Component)

Part 1 of Schedule 4 provides a general overview of the obligations of both NTPC and the GOL, the duration of these obligations and institutions within NTPC and the GOL who are responsible for the process. The monitoring of the resettlement process is performed both internally by the Company and the GOL and also by independent parties. This section provides for the eligibility of the resettlers to the benefits NTPC will provide, with a population survey undertaken in October 1998 and another to be undertaken approximately 3 months prior to financial close. This second survey will take into account natural growth and certain other categories (Clause 7.1, Schedule 4, Part 1).

The CA also provides a detailed description of the development of the villages in both the planning stage (including population and village location surveys and consultation and clearance of UXO) and the implementation stage (including land distribution and titling, relocation, construction and as described below the entitlements of the resettlers). There are a series of livelihood development programmes detailed in the CA both on a village and community basis (including for livestock improvement, agriculture and fisheries development and for the sustainable use of the community forest). Should problems arise and in accordance with Article 28 of the Constitution, the CA sets out a grievance procedure as further discussed in Chapters 6 and 46. The CA sets out the funding arrangements for these activities.

3.5.3 Entitlements

The CA also provides for the entitlements of the Project Affected People, as detailed in

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<th>Category of Project Affected Person</th>
<th>Entitlements</th>
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<tr>
<td>A1 - In the Reservoir Area</td>
<td></td>
</tr>
</tbody>
</table>
| All those living in the Reservoir Area as of October 1998 and those born subsequently to those living in the area. | **Resettlers:**
|                                     | 1. Housing:
|                                     | • the labour and transportation cost associated with the dismantling of existing house and constructing new one
|                                     | • provision of new materials for construction of new house
|                                     | • electrical wiring and basic fixtures
|                                     | • minimum housing area not less than existing area or 42m², whichever is the greater
|                                     | • households with 7 or more persons containing two families have the option to have two houses
|                                     | • sheds, other outbuildings and fencing will be provided to the household
|                                     | 2. House/Farm Land:
|                                     | • 0.5 ha per household
|                                     | • up to 0.15 ha of rice land per household in off village location, to be developed/allocated on a community basis. In the event less land is available, other livelihood options will provide replacement.
|                                     | • land provided with survey, and joint title to husband and wife
|                                     | • house to be constructed in location acceptable to owner.
|                                     | 3. Infrastructure:
|                                     | • irrigation water to the house/farm lot boundary and distribution
|
### Category of Project Affected Person

<table>
<thead>
<tr>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>system</td>
</tr>
<tr>
<td>• irrigation to rice lands</td>
</tr>
<tr>
<td>• year-round household water supply</td>
</tr>
<tr>
<td>• electricity to the house</td>
</tr>
<tr>
<td>• road access to house/farm lot</td>
</tr>
<tr>
<td>• school access within 3km</td>
</tr>
<tr>
<td>• clinic access within 5km</td>
</tr>
</tbody>
</table>

#### 4. Services:
- transportation of all household assets to new location
- health check of all household members prior to and after move
- access to RMU for advice
- access to Grievance Procedure for complaints

#### 5. Cash:
- one-time cash allowance to cover moving time, disturbance – USD 15 per person
- compensation for fruit trees lost at district prevailing market prices in case no acceptable replacement trees provided; compensation for standing crops at market prices.

#### 6. Production Assistance:
- effective access to a range of feasible production and income generation options to meet pre-determined household income target, including production forest and Reservoir fisheries
- tools to work the farm land and forest land
- planting materials for 3 years after preparation of farm lot, including fruit tree saplings
- fertiliser and other agro-chemicals for 3 years after preparation of farm lot
- training in farming, forest management and fisheries techniques
- agricultural advice for 5 years after preparation of farm lot
- access to identified forests for collection of non-timber forest products
- access to identified Reservoir drawdown areas
- skills training for wage labour jobs
- household budgeting training
- income support program during implementation period, at 440 kg of rice per person
- households with economically inactive members and other vulnerable households to participate in the production benefits from communal forests through the provision of a basic needs allowance as determined by the village.

#### 7. Departees:
Those wishing to permanently leave the District and not move to a resettlement site will receive a one-time payment for the value of the land, trees, production, and structures lost, plus transportation and disturbance allowances.

<table>
<thead>
<tr>
<th>A2 - Surrounding the Reservoir Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>All those living in the area surrounding the Reservoir Area who have work lands in the Reservoir Area and derive benefits from such lands.</td>
</tr>
<tr>
<td>Surrounded Households with Reservoir land</td>
</tr>
<tr>
<td>These households will have two options: (a) receive cash compensation for the loss of land; or (b) same as Reservoir households, in case they opt for relocation into a new village with farm/house plot.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A3 - Surrounding the Reservoir Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>All those living in the area surrounding the Reservoir Area who are adversely affected by</td>
</tr>
<tr>
<td>These households will receive compensation according to their losses.</td>
</tr>
</tbody>
</table>
### Category of Project Affected Person

<table>
<thead>
<tr>
<th>the Project or by the Resettlement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Power Station, Regulating Pond, Regulating Dam and Downstream Channel from Regulating Dam to the Xe Bang Fai River</td>
</tr>
</tbody>
</table>
All those adversely affected by the construction and operation of the Downstream Channel, either through loss of land and infrastructure or economic loss or disturbance. On the alignment of the Downstream Channel prior to the commencement of the Preliminary Works, a detailed survey of impacts will be conducted to register eligible affected persons. |

<table>
<thead>
<tr>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Housing if required for right-of-way or construction of Downstream Channel:</td>
</tr>
</tbody>
</table>
  a. as per housing for Reservoir Area households (see A.1) |
| 2 Land (home lot and production land): |
  a. if 25 percent or more of the land is required, the Project Affected Person is entitled to sell the entire land to the Project and receive compensation accordingly |
  b. if less than 25 percent of the land is required and the remaining land is not economically viable for production the Project Affected Person is entitled to sell the entire land to the Project and receive compensation accordingly |
  c. the replacement value of the land is its local market value of the year in which the compensation is paid |
  d. the compensation can be cash or the provision of replacement land of equal size and productivity (in the vicinity of the home lot) |
| 3 Trees: |
  a. fruit trees compensated at district prevailing market prices |
  b. other trees compensated at stumpage value |
| 4 Land and disturbance allowance: ten percent of the amount calculated under Item 2 above. |

| C. Downstream of Nakai Dam to the Mekong River, Nam Kathang, Xe Bang Fai and road from Thakhek to the Project site. |
All those living or working along natural rivers downstream to the Mekong river who will be adversely affected by the operation of the Project either through loss of land or infrastructure or economic loss or disturbance. |

<table>
<thead>
<tr>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Infrastructure or economic losses will be compensated at replacement cost on a village or household basis, as per consensus</td>
</tr>
</tbody>
</table>

| D. NT2 Resettlement Area, Road from Ban Nan Nian to Lak Sao, Quarry Area near Lak Sao, Access Roads, Dam Construction Area, Power Station Construction Area, |
All those adversely affected by the construction and operation of these facilities, either through loss of land and infrastructure or economic loss or disturbance. On the alignment and land areas involved prior to the commencement of the Preliminary Works, a detailed survey of impacts will be conducted to register eligible affected persons. |

<table>
<thead>
<tr>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 As per Downstream Channel households under B.</td>
</tr>
</tbody>
</table>

| E. Transmission System and GOL Transmission Assets: |
All those adversely affected by the construction and operation of the Transmission System and the GOL Transmission Assets, either through loss of land and infrastructure or economic loss or disturbance. On the alignment prior to the commencement of the Preliminary Works, a detailed survey of impacts will be conducted to register eligible affected persons. |

<table>
<thead>
<tr>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 As per downstream channel households under B as determined after exact route location finalised and impacts verified.</td>
</tr>
</tbody>
</table>
3.5.4 Project Lands

The following provisions are included in the Concession Agreement to guide the identification, handover(lease) to and use lands within the Lao PDR by the NTPC for the purposes of the Project.

- **Lease of Project Lands:** during the Concession Period the GOL will give the Company, free of charge, rights of access to, use and possession of designated Project Land. This will be affected by leasing arrangements – a Preliminary Site Lease (during the Preliminary Construction Phase) and a Site Lease (on and following the commencement of the Construction Phase).

  The Project Land is leased by the GOL to the Company is to be sufficient to enable the Company to exercise its rights and perform its obligations under the Concession and the Concession Agreement.

  (See Clause 10.1 of the Concession Agreement.)

- **Categories of Project Land:** there are three categories of Project Land to be leased by the GOL to the Company and these will be identified by the exclusivity of the occupancy rights granted to the Company. These categories include:
  
  - lands where the Company is to have exclusive occupancy rights (subject to specific rights of inspection to GOL and others) (Category 1 Project Lands), co-existent but dominant occupancy rights (Category 2 Project Lands) and co-existent but serviet occupancy rights (Category 3 Project Lands); and
  
  - are identified in Schedule 9 of the Concession Agreement by reference to Maps appearing as Annexure A (Preliminary Construction Phase Project Land Maps), B (Construction Phase Project Land Maps) and C (Construction Period Project Land Maps) of the Concession Agreement.

  (See clauses 10.1 (c) and 10.4 of the Concession Agreement.)

- **Compensation to be paid for existing improvements:** the GOL is required to ensure that Project Land designated for the exclusive use by the Company (Category 1 Project Lands) must be free of use or habitation by others. However, the Company must compensate previous occupants for the value of their improvements to the Project Lands concerned. In order to ensure timely identification of the third party improvements on this land, the Company must, as a Condition Precedent, carry out a **Baseline Study** showing those improvements and setting out the proposed compensation to be paid by the Company to those persons affected by any demolition and removal of those improvements.

  It is also a Condition Precedent that the GOL accept the findings of the Baseline Study.

  (See clause 10.1 (i) of the Concession Agreement and paragraphs (a) and (b) above.)

- **Land to be used for Project purposes only:** the Company may only use the Project Lands for Project purposes and this right includes a limited right of logging and quarrying of the Project Land in accordance with the Procedures for Quarrying and Logging set out in Schedule 13 of the Concession Agreement. If that logging or quarrying is permitted under that Schedule 13 then the Company shall be entitled to derive profit from those activities but in respect of the sale of commercial timber and forestry products, the Company shall be required to pay the applicable royalty under the Forestry Law.

  (See clause 10.6 (a) and (b) and Schedule 13 of the Concession Agreement.)

- **Change of land use:** the Company may request the GOL to authorize the use of Project Lands for additional purposes not related to the Project. The GOL has a wide discretion to reject any such request including if the lands concerned are not wholly Category 1 Project Lands (exclusive Company occupation in any event) or the additional purpose is inconsistent with the terms of the Concession Agreement.

  (See clause 10.7 of the Concession Agreement.)

- **Additional Project Lands:** the Company may request the GOL to grant it additional lands for use by the Company as Project Lands. The GOL has the discretion to reject any such request including if the GOL considers the request to be unreasonable due to likely or potential adverse environmental or social impacts (CA clause 10.8).
3.5.5 Security

As security for NTPC’s various resettlement obligations, NTPC must provide to the GOL a number of letters of credit.

- If the Company fails to comply with its environmental and resettlement obligations it must make certain payments to the GOL. An independent Panel of Experts will review compliance of NTPC and the GOL to the Social and Environmental obligations including completion of the resettlement obligations, thus the end of the Resettlement Period. These payments are secured from within 30 days of the construction phase commencement by a letter of credit of USD 2,500,000.

- NTPC warrants that the environmental and social objectives set out in the Concession Agreement are reasonably sufficient to mitigate against or compensate for the reasonably foreseeable project impacts. Nonetheless, NTPC also recognizes that there may be unanticipated project impacts and agrees to fund such additional costs to a limit of USD 10,000,000 and any amount received from environmental insurance proceeds. To secure its obligations in respect of the unanticipated project impacts NTPC agrees to put in place a letter of credit of USD 2,500,000 within 30 days of the construction phase commencement.

- Where the CA is terminated before the Commercial Operations Date (“COD”) and before the satisfaction of the various social obligations to be met by COD the Company must make certain payments to the GOL to ensure certain resettlement obligations are satisfied. Such sum secured by a letter of credit of USD 1,000,000. These termination obligations are further described in Appendix A-2.

3.6 Legal Foundation of Village Forestry at Nakai Plateau

In order to implement the NT2 Resettlement Policy the resettlers must benefit from sustainable use of the land and resources, especially the forestry and fisheries resources. The sustainable exploitation of the land for agriculture is performed within the areas allotted to each household. However, with regard to forestry and fisheries the resettlers must be organised to use and benefit from those resources collectively, so that benefits from the resource endowment are shared equally amongst all those to be relocated. The legal and regulatory framework for such collective forest resource use is tabulated in Table 3-1.

Table 3-1: Legislation Relevant to Village Rights in the Forestry Sector

<table>
<thead>
<tr>
<th>DOCUMENT</th>
<th>DATE</th>
<th>ISSUING BODY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Laws</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Forestry Law</td>
<td>11/11/1996</td>
<td>National Assembly</td>
</tr>
<tr>
<td>• Water and Water Resources Law</td>
<td>2/11/1996</td>
<td>National Assembly</td>
</tr>
<tr>
<td>• Land Law</td>
<td>Amended 21/3/03</td>
<td>National Assembly</td>
</tr>
<tr>
<td>• Environmental Protection Law</td>
<td>26 April 1999</td>
<td>National Assembly</td>
</tr>
<tr>
<td><strong>Decrees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PM Decree 102: Organization and Administration of Villages</td>
<td>5 July 1993</td>
<td>Prime Minister</td>
</tr>
<tr>
<td>• PM Decree 59: Sustainable Forest Management of Production Forest Areas</td>
<td>22 May 2002</td>
<td>Prime Minister</td>
</tr>
<tr>
<td>• PM Instruction 3: Expansion of Land Management and Land and Forest Allocation</td>
<td>25 June 1996</td>
<td>Prime Minister</td>
</tr>
<tr>
<td><strong>Regulations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MAF Regulation 196 on the development and promotion of sustainable tree planting</td>
<td>15 Aug. 2000</td>
<td>Minister of MAF</td>
</tr>
<tr>
<td>• MAF Regulation 535: Management of Village Forests</td>
<td>18 June 2001</td>
<td>Minister of MAF</td>
</tr>
</tbody>
</table>
### 3.6.1 Background on Policy and Village Forestry Use and Rights

Villages in Lao PDR have historically and in most cases continue to practice traditional methods of forest tenure, use and management despite a government management system and legislation. After the formation of Lao PDR in 1975, the forest resources became the property of the national community to be managed by the State. A system was established to conduct forest management activities through 9 State Forest Enterprises (“SFE”) whereby the role of villagers was limited to labour with minimal benefits. SFEs were abolished in the late 1980s (PM Decree 117) and forest management was turned over to the provinces, and the harvest of forest products to private enterprises and three SOEs.

The recognition to increase the role of villages in forest management has emerged over the past decade, especially since poverty alleviation and the reduction of natural forest degradation have become higher policy goals of the GOL and international donor community. Through the Forest and Land Use and Planning process, the GOL has attempted to identify village boundaries and define forest use and protection zones within village boundaries under forest management agreements. Securing temporary tenure and management rights over forest areas has been a positive step, but the process has been inconsistently implemented with inadequate training to district staff or benefits to the villages in a consistent manner.

The GOL has supported various models of community forestry in pilot projects in over 75 villages (FOMACOP, LSFP-JFM, JICA). These projects promoted formal village involvement in co-management or participatory management of forestry management activities, including customary rights and commercial timber production, under long-term lease agreement between village associations and the government.

### 3.6.2 National Legal Framework

The Forestry Law (1996) recognizes the village as the grass-roots level of a four-tiered forestry administration that includes the national, provincial, district, and village levels. The law states that village authorities have the right and duty to develop specific regulations that are “appropriate to the actual conditions of the village” (Item 6, Article 63). This is further implemented and clarified through PM Decrees 59 and 102 attached in Appendices C4.2 and C8. PM Decree 102 (1993) recognizes village administration as a formal level of the government with rights and duties to implement policies at the village level.

Decree No. 59/2002/PM, implementing the Forestry Law in Production Forest Areas (PFA) states that “Village Forestry Associations (“VFA’s”) shall organize the villagers’ participation to implement all sustainable production forest management activities within the scope of their capacity with FMUs under outlined instructions and regulations”. Such activities include demarcation, land-use planning, pre-harvest inventories and tree marking, management planning, monitoring and control, harvesting activities, log sales and receipt of revenues and other development activities consistent with forest management agreements and plans” (Article 8.4). While the Resettlement Area has not been specifically declared as a PFA at this time, the scope of PM Decree 59 and its implementing regulation issued by MAF in 2003 will cover production forestry in the Nakai Plateau.
3.6.3 Legislation Enacted Specifically for NT2 Resettler Forestry

The following specifically provides a legal framework for the management of the forests in the Resettlement Area by the Nakai Plateau Village Forestry Association (“NPVFA”) (see Appendix D):

Decree No. 193/PM of 29 December 2000 establishing the Nakai-Nam Theun NBCA Corridor Areas, the reservoir area, and the Resettlement and Forest Area for the affected people.

Decree No. 37/PM of 12 April 2002 approving the allocation of the Resettlement and Forest Area to the affected people for carrying out forest business activities as a compensation and rehabilitation measure.

These two PM Decrees set out the rights of the resettlers to the area in which they are to be resettled. It is on this foundation, that the organization the resettlers sustainable exploitation of the forest is based.

Authorization No. 0063/MAF of 29 April 2002 authorizing the Khammouane Governor to issue regulations on the establishment and conduct of operations of a NPVFA which will manage the forest resources allocated to the resettlers.

Regulation No. 484/KM.GOV of 13 June 2002 establishing the NPVFA whose objectives include management and use of the forest so that the become one of the permanent bases of their livelihood and providing a set of guidelines for its function, rights, management and operations.

In accordance with the “Regulation on the establishment and management of Nakai Plateau Village Forestry Association “No.484/KM.GOV, the NPVFA is created as a legal corporate entity (Article 3) whose functions include the payment of tax and other duties to the government (Article 4) and to distribute net profits to the members on a regular basis (Article 5). As such this Association is a profit making organization to be registered with the Ministry of Commerce in the same manner as a corporate identity and will pay tax on its profits and dividends in accordance with the Tax Law No. 04/95/NA, dated 14 October 1995 as amended. The functions of the association under Article 4 include (i) development of sources of income necessary for the improvement of the living conditions of the members of the association (ii) sharing the cost and benefits to the members equitably, and (iii) establishing a social fund for support of vulnerable households.

3.6.4 Articles of Association

As part of organizing the NPVFA, an Articles of Association (termed 'regulations' in the Lao language document) have been drafted with the participation of DAFO, PAFO, the Khammouane Provincial Administration and future members of the NPVFA. These articles set out the rights and obligations of the association for the use of the forestry resources in line with Authorization no. 63 and Regulation 484 above. The articles were executed 25/11/2003 by the Governor of the Provincial Administration, thereby finalizing the process of GOL’s approval and authorization.

The main objectives of the association are:

- To gather the resettlers together to enhance their solidarity and create favourable conditions for improving their living standard
- To raise awareness on the collective forestry rights of the resettled villagers and
- To manage and use the forests effectively and sustainably so that they become the permanent base of their livelihood

The articles include the duties and rights of villagers required under PM Decree 59 and MAF implementing regulation to cover all aspects of forest management rather than the village role merely being a labor force as outlined in MAF Regulation 535 and PM Orders 10 and 15. Specifically, NPVFA will have the sole rights to harvest and sell timber and NTFP from the allocated forest, provided this is done in a sustainable manner. Sustainable forest management is the main obligation of NPVFA, which will be undertaken by carrying out planning, forest management (including forest regeneration and stand
improvement), protection, and conservation activities including patrolling and reporting illegal logging to DAFO.

However, to legally conduct forestry businesses, according to MAF Regulations 261, 267 and 275 (all issued in 2000) and the Instructions of the Department of Forestry (January 2001), the NPVFA must also apply for and be issued three business licenses, as follows:

1. a logging license;
2. a sawmilling license; and
3. a wood processing and furniture factory license.

A Forest Management Contract or Lease Agreement may also be entered into by the NPVFA, DAFO, PAFO and the Khammouane Provincial Administration to confirm the NPVFA’s right to what continues to be state land. Under Article 13 of the Land Law the State permits the grant of lease for up to 30 years for state property, although Article 65 notes that for special economic zones a lease of up to 75 years may be granted.

3.7 RESERVOIR MANAGEMENT

The GoL is in the process of establishing a Reservoir Management Coordinating Authority, whose objective it will be to ensure:

(a) the balanced development and management of the reservoir and its resources, with a view to ensuring that activities of the priority stakeholders, the Nakai plateau resettlers, are secured; and

(b) that the various stakeholders and users of the reservoir - the NTPC, plateau resettler fishers, the WMPA and Watershed residents, tourism authorities etc - are coordinated in their activities and that informed is shared as appropriate.

The organisation and function of the proposed authority are described in Chapters 6 and 24.

3.8 LAND, FISHERIES AND FOREST RESOURCE ACCESS

The GoL is in the process of developing a legal instrument aimed at strengthening the previous PM Decree's 193 and 37 in order to ensure that:

(a) the forest resources in the Resettlement Area are for the exclusive use and benefit of the plateau resettlers only;

(b) the allocation and use land in the Resettlement Area is undertaken within framework that resettlers have the primary right to land use, both currently and in the future;

(c) land titles will be issued for all housing and permanent agricultural land within one year of actually relocating, building new houses or opening and planting the first crop on the agriculture land. However, these titles will be issued with a caveat prohibiting the sale of such land within the 8 to 9 year resettlement period, unless otherwise adjudicated by the Grievance Committee;

(d) the fisheries resource in the Nakai Reservoir is for the exclusive use of Plateau resettlers (and those currently fishing in the proposed inundation zone) until such time as it is proven that such fisheries resources are in excess of the requirement of the Nakai fishers or their descendents; and

(e) the trading in the reservoir fisheries resources is to be conducted only by the authorized reservoir fishers (the plateau resettlers, reservoir area fishers, and their descendents).

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6 The legal instrument for the establishment of this authority is currently under review by the IFIs.
7 as above, this legal instrument is still under review by the IFIs
3.9 **THE NT2 PROJECT IN RELATION TO WORLD BANK AND ADB SAFEGUARD POLICIES**

The NT2 Resettlement Policy details guiding objectives, principles and provisions under which
resettlement is carried out. This NT2 Policy, and the Social Development Plan which has been drafted
over many years, aims to follow the principles of the three applicable ('triggered') World Bank Policies:

- Operational Policy 4.11: Cultural Property.

More recently, the Asian Development Bank has also become a partner in the NT2 Project, and thus the
ADB safeguards policies are also relevant to the social and resettlement program of the NT2 Project,
including:

- ADB Policy on Indigenous Peoples( 1998) and OM F3
- ADB Policy on Gender and Development (1998) and OM C2

NTPC and GOL are fully committed to comply with these World Bank and Asian Development Bank
requirements and policies for indigenous peoples, involuntary resettlement, cultural property and gender
and development. These policies are set out in full in Appendix B.

3.9.1 **WB OP 4.12: Involuntary Resettlement**

The fundamental objective of Bank policy on resettlement as stated in OP 4.12 is to assure that
development projects which must displace people also benefit them. To recall this overall objective,
affected persons should be consulted from the beginning and special attention should be paid to socially
or economically disadvantaged people. The NT2 policy states that the people affected by the Project
should after relocation be better off than before. The resettlement plan is designed to achieve this. Policy
objectives of the WB that have been applied to the SDP include:

- Involuntary resettlement has been avoided when feasible or minimized, exploring all viable project
designs (2a)
- When resettlement is unavoidable, activities have been planned as “sustainable development
programmes” that provide sufficient resources and opportunities to enable displaced persons to
share the benefits of the project (2b).
- Ample assistance will be provided to displaced persons in order to improve their livelihoods and
standards of living (2c)
- WB Safeguard Policy on Involuntary Resettlement is applicable due to loss of structure, land and
livelihood of affected persons resided in the proposed reservoir or impacted directly by project
activities (3a). In addition, there is “restricted access” to the NBCA to the north and east of the
proposed reservoir, impacting the livelihoods of the displaced persons (3b). The proposed
livelihood model that is explained in detail in Chapters 21-25 takes into account that resettlers will
not have access or be reliant to resources in the NBCA.

The SDP also follows the measures outlined in Section 6 of OP 4.12:

- Displaced persons have been “informed about their options and rights”, “consulted on, offered
choices among and provided with technically and economically feasible resettlement alternatives”
and will be “provided with prompt and effective compensation” in the form of new livelihood
system that will significantly exceed the value of their existing livelihood systems in terms of
economic return and “at replacement cost for selected assets” (6a, i-iii).
- Assistance will be provided during relocation that exceeds moving allowances and housing;
housing sites and agricultural land will be developed in co-operation with displaced persons; labour
inputs and consultations on site preparations will take place in advance of the relocation (6b, i-ii).
Chapter 3: Legal and Policy Framework

The SDP outlines a plan for “support after displacement, for the transition period, based on a reasonable estimate of time likely to be needed to restore their livelihood and standards of living” by establishing two targets to bring all households to the Lao rural poverty line four years after relocation and all villages to the national rural income level upon completion of the resettlement process (cf. Section 8.9.2).

The SDP covers all the elements of a SDP as prescribed in Annex A of OP 4.12, including a specific Resettlement Policy for the Project approved by GOL.

3.9.2 WB OD 4.20 Indigenous People

The WB’s Safeguard Policy OD 4.20 is addressed in detail in the Ethnic Minorities Development Plan (EMDP) for the NT2 Project Area. The findings and recommendations of the EMDP have been incorporated into the SDP and are consistent with its policies and planned activities.

Indigenous peoples and ethnic minorities commonly have little voice in development decision making. Moreover, exploitation of their fragile resource base has largely profited others. Given that the reservoir population is made up of ethnic minorities, this SDP shows that they have had a voice in decision making and that development plans have been designed to respect their rights and reflect their cultural practices and traditions.

OD 4.20 sets out the prerequisites for culturally appropriate planning for development, including for resettlement as development. These include assuring that project staff (private and government) are familiar with the social, technical and legal aspects of proposed development activities; recognising traditional organisational structures, religious beliefs and resource use; using appropriate consultation methods that take advantage of local knowledge; focusing on production systems that suit the people’s needs and environment; and avoiding increased dependency on project or government agencies by incorporating capacity building. The SDP follows these guidelines.

Households that currently live on the Nakai Plateau can be classified as indigenous people or ethnic minorities and have strong cultural ties to the area. All are sharing a common livelihood system. The focus on vulnerable groups needs to be on older people and others that may be disadvantaged, such as single parents.

The SDP has approached the indigenous peoples issue by planning that all proposed activities be "culturally appropriate development" and by giving specific consideration to the ‘local patterns of social organization, religious beliefs and resource use’ in the design of the plan’s associated livelihood proposals. The plan also specifically aims at avoiding the creation of dependency and promotes self-management on the part of the resettlers.

3.9.3 WB OP 4.11: Cultural Property

Operational Policy OP 4.11 - Cultural Property - covers archaeological, historical, cultural, religious and natural values (environmental features). Studies that have been carried out previously in the project area have not revealed any significant loss of cultural property. However, a future more detailed study is now underway, and due to be complete by mid 2004 (see the EAMP) while provisions have been made however for “chance finds”, in co-operation with concerned GOL agencies as outlined in the EAMP.

3.9.4 ADB’s Policy on Gender and Development

ADB’s OM F2/OP requires that the findings of a gender analysis be included in the resettlement plan. The Policy requires:

- Gender sensitivity to observe how the project impacts women and men differently and to take account of their different needs and perspectives in resettlement planning;
- Gender analysis which refers to the systematic assessment of the project impact on men and women and on their economic and social relationships;
- Gender planning which refers to the formulation of specific strategies to bring about equal opportunities to men and women.
Thus, the SDP has adopted gender “mainstreaming” as a key strategy for promoting gender equity. This entails ensuring the consideration of gender issues at all stages of the project and that women participate in the decision-making processes. A preliminary gender analysis has been conducted for the Nakai Plateau and the Xe Bangfai, and is currently being updated. This gender analysis and improvements to the strategy will ensure the following specific activities:

- Inclusion of gender sensitivity and capacity building for all stakeholders involved in the detailed design, implementation and monitoring and evaluation;
- Separate components for encouraging women’s participation;
- Integration of gender into livelihood planning and implementation, monitoring and evaluation, and all training programs;
- Gender specific interventions such as targeting health programs, livelihood technical training to and land titling and land use rights to both men and women.

********** * * * **********
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## Chapter 4: Public Consultation, Participation and Disclosure

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4 PUBLIC CONSULTATION, PARTICIPATION AND DISCLOSURE

4.1 INTRODUCTION

Public consultation and participation is playing a key role in the continued planning and in the preliminary or pilot implementation of the social and resettlement components of the NT2 Project. This chapter describes the Public Consultation, Participation and Disclosure (PCPD) Process for resettlement planning and implementation component of the NT2 Project that has been undertaken to date, and those planned for the future. The objective of the PCPD is to develop and maintain avenues of communication between the Project and stakeholders in order to ensure that their views and concerns are incorporated into project design and implementation with the objectives of reducing or offsetting negative impacts and enhancing benefits from the Project. The feedback from consultations has been, and will continue to be an important component of the planning process leading to the formulation of mitigation measures and compensation plans for project affected communities.

The NT2 Project’s public consultation, participation and disclosure process can be best considered as a Three-Phase Process, as follows:

1. **PCPD Phase 1: Public Consultations**
   Starting in 1996, public consultations were initiated to allow stakeholders and Project Affected People (PAPs) to participate in project design, both in terms of technical design of mitigation measures, and the design of the resettlement and compensation process. Up to the end of 2003 there have been more than 250 public consultation and participation briefings and meetings, which have taken place at the local, regional, national and international levels (see Table 4-4, 4-12, 4-13 and 4-14). Dialogue has been initiated with all interested groups and stakeholders who are directly or indirectly involved in the NT2 Project and who have expressed a wish to participate in the Project’s public consultation program.

2. **PCPD Phase 2: Public Consultations**
   Following the development of the basic project design and planning, and the incorporation of feedback from Phase 1 comments into the design, an extensive second round of detailed information dissemination and consultations has been conducted. This second round (May-August 2004) has provided information to all PAPs and given them another opportunity to make proposals and thus contribute to the further refinement in the project strategy and design. This Phase 2 will also see the progressive translation, into the Lao language, of summaries and relevant sections of the social and resettlement safeguards documents.

3. **PCPD Phase 3: Disclosure**
   During the second phase of the Public consultation, the July 2004 version of the SDP was fully disclosed on the NT2 projects website. During and after WB and ADB appraisal, the full Social Development Plan, including the EMDP, RAP and Frameworks, revised according to the consultations, will be fully and widely disclosed in both English and Lao language (a summary of the latter) according to both World Bank and ADB policies.

Note: This division into three phases is most relevant for consultations with local stakeholders in the direct impact areas of the project, and the following sections on local-level consultations present these phases in detail. For the regional, national and international consultations one section will summarise consultations for the first two phases together.

4.2 INTERNATIONAL GUIDELINES ON STAKEHOLDER PARTICIPATION

The World Bank’s Safeguard Polices on Environmental Assessment (OP 4.01), Involuntary Resettlement (OP 4.12) and Indigenous Peoples (OD 4.20) as well as ADB Policies on Involuntary Resettlement and Indigenous Peoples all require that affected groups (especially villages), GoL agencies, local NGOs and all other stakeholders be consulted in a meaningful way during preparation of Environment impact Assessments ands Resettlement Action Plans. Thus, a PCPD was developed for the NT2 Project to ensure that all stakeholders will have a chance to participate in the planning of the Project.
This comprehensive consultation process also intends to follow the recommendations made in the World Commission on Dams (WCD) Report, including the requirements for:

- Participation in consultation of indigenous and tribal people is a process of communication and negotiation, spanning the planning and Project cycles;
- Effective participation requiring an appropriate choice of community representatives;
- Consent of affected indigenous and tribal people should be sought prior to key points in the decision-making process;
- The manner of expressing consent will be guided by customary laws and customs, and by national laws;
- At the beginning of the process the affected people will state how they will express their consent to key decisions;
- The integrity of community processes should be guaranteed, they shall not be divided or coerced, and be free of manipulation; and
- Independent dispute resolution mechanism should be agreed with the other stakeholders at the beginning of any process;

4.3 NT2 PROJECT'S LOCAL LEVEL PCPD STRATEGY

The NT2 Project recognizes that PCPD strengthens the decision making process in both the EAMP and the RAP and adds value to the quality of the Project. To date, consultation with the people who may be affected by the Project has been critical in developing the RAP, and the on-going PCPD outlined in Section 4.12 will ensure it continues to play a major role in resettlement planning and then for the implementation of activities. PCPD commenced at the local level before the draft RAP was issued in 1997.

NTPC are committed to assisting affected households in making an informed choice about resettlement and compensation. The Provincial and District authorities, through the Resettlement Management Unit (RMU), are responsible for informing villagers well in advance about the implementation steps and giving notice, at the appropriate time, of the compensation options, and in general encouraging participation of local stakeholders in the decision-making process and implementation of the SDP.

4.3.1 Information exchange, stakeholder concerns, and participatory program design

Consultation at local, regional, national and international levels has been and will continue to progress through three main steps:

Step 1: Information collection and dissemination: This initial step aims to promote awareness. Information flows in two directions, both into and from the Project. Awareness is attained through collection of data relating to both human and physical characteristics that facilitate evaluation and planning for project implementation. Additionally, information is disseminated to stakeholders detailing project features, project impacts and implications for altered social and physical environments.

Step 2: Eliciting Stakeholder Concerns: Comments from stakeholders in response to information disseminated and received during Step 1 are sought and discussion of alternatives and suggestions for mitigation activities encouraged. In this way, issues that may have been previously overlooked or outstanding concerns of stakeholders are given a forum for review. This represents a needs-assessment, and provides a base from which decisions can be made.

Step 3: Active involvement in Project Design and Implementation: Based on the decisions made in Step 2, requirements for education, training, financial and institutional strengthening are identified and integrated into project design. The process will continue during implementation so that stakeholders may be fully involved throughout the process. This process is not linear, but provides for cyclical feedback, should deficiencies at any stage be evident.
Once the stakeholders are identified, it is subsequently the objective of the NT2 Project to understand the views of these groups. There has been a need to plan and develop appropriate interaction and information sharing techniques for these different stakeholders. The key priorities for the design of these consultation methodologies included:

- Ensuring stakeholders were able to understand the Project and the potential Project impacts;
- Ensuring stakeholders understood the composition of NTPC and their objectives;
- For NTPC, to gain a clear understanding of stakeholders’ requirements as a result of the Project.

Transparency and openness during the dissemination of information has been a priority in both the development of public consultation plans and in the implementation of public consultation processes. Thus, throughout the public consultation process it has been important to take into account the following:

- The communication techniques should be culturally sensitive and appropriate;
- The media used should be appropriate, and should recognize the high rates of illiteracy among those likely to be affected;
- The need to ensure that participation in consultation activities is not dominated by local authorities; and
- The special attention that may be required to ensure the participation of women and vulnerable groups and the consideration of their needs in the design of mitigation measures.

4.3.2 Ethnicity Issues

The consultation strategy incorporates a number of key aspects related to ethnicity. These are explained in detail in Chapter 14 (Consultations for the Nakai Plateau), Chapter 35 (Consultations for the XBF) and in Chapter 45 (Ethnic Minority Policy Framework for Project Lands). The process ensures that all ethnic groups, including vulnerable minorities to participate in the consultation process and to influence in an active manner the project design. This includes:

- Detailed anthropological studies as part of consultations (mostly in 1997-98) in order to identify any aspects related to livelihood, language, cosmology, social organisation, gender, material culture and leadership in order to focus discussions on relevant topics and to take into consideration ethnic identity and possible project impacts;
- Separate discussions for different ethnic groups to ensure the smaller groups are able to freely express their opinions and to encourage involvement;
- Discussions with traditional and local religious leaders to make sure that local beliefs are respected and taken into consideration in project design and mitigation; and
- Draft mitigation measures that can be modified depending on local needs of the different ethnic groups within the different project areas.

4.3.3 Language Issues

Language is an important consultation issue as it determines to a large extent whether the message is understood and information assimilated by the targeted population. As explained in the Ethnic Minority Development Plan (EMDP), while there are a number of ethnic groups on the Nakai Plateau and in the Downstream Xe Bangfai Area, studies on language usage has established clearly that the vast majority speak Lao, the national language, and that the different ethnic languages are for the most part confined to domestic use. Only a very small percentage of the affected population does not have a good working knowledge of Lao in the Project Area. In addition, none of the ethnic languages have any written form. Thus, it is both (a) not necessary, and (b) impossible to design written materials in each ethnic language for the purposes of consultation. For Tai and Lao dialects (spoken by Tai Bo, Phou Thay, Tai Moey and Tai Men groups), this will also not be necessary since these are dialects of Lao or languages related to Lao.

However, in order to ensure that consultations are effective, translation (or rather explanation) of technical words into ethnic languages - Brou and Vietic languages - is always an option, and during consultations and meetings in villages, such translations are sometimes provided by local village leaders or ethnic staff of District Working Groups whenever necessary. Comprehension enquiries, and the quality of
discussions will determine whether this is necessary in any particular village. It is the responsibility of both the Resettlement Office (RO) of NTPC and the RMU conducting the consultations at the village level to determine whether translations are required. Thus, before discussions, comprehension checks are made, especially for women and the elderly who might have less exposure to the national language and technical (modern) words. A more detailed account of language in relation to consultations is presented in the Consultation chapters of the EMDPs.

4.3.4 Gender Issues

Participation of women in consultations sometimes requires special attention because most women are either less educated than men or have less exposure to the outside world and politics than men. In the consultations that have been conducted since 1997, efforts were been made to include women and to encourage their participation by having separate women’s groups. In the Phase 2 consultations in 2004, the sue of gender disaggregated discussions groups and ensuring women are included in the village facilitator team ensured that women were fully involved in this phase of consultation process.

Incorporation of gender issues is also facilitated by the central role of the Lao Woman Union (LWU) at the village and District level consultations. The LWU was formed originally in revolutionary times in the 1960s and 70s to enhance women’s role in the development process, and now performs a grass roots, village-by-village, communications and gender awareness role. The LWU will be central to the resolution of the resettlement and downstream community impact issues. This strategy will continue throughout the consultations and implementation of the resettlement plan.

4.4 Identifying Stakeholders

Following extensive scoping of issues and review of findings, which have been subjected to public and professional review, there is agreement that NT2 stakeholders comprise of five main groups:

- People directly affected by the Project;
- GoL officials at the district, provincial and national levels;
- The broader interested regional and national community;
- NGOs operating in the Lao PDR and particularly those in the Project area; and
- International NGOs, international organizations, and the local, regional and international media.

Those stakeholder groups that are of specific concern to the social and resettlement components of the NT2 Project can also be identified on a geographical basis, as follows:

**Local**

- All households and villages on the Nakai Plateau (about 1,250 households).
- Communities living along the Xe Bang Fai (about 7,095 households);
- Communities downstream of the dam; and
- Communities with assets or land under the Project (construction) Lands.

**Regional**

- Community leaders.
- GoL Agencies at the district level.
- GoL Agencies at the Provincial level.
- Businesses and contractors.

**National**

- GOL Ministries.
- The People of the Lao PDR.
- National media.

**International**

- Other international power utilities, in particular EGAT.
• World Bank.
• NTPC, investors and Financial Institutions.
• International NGOs.
• International media.
• Other hydroelectric dam developers.

Table 4-1 presents a summary of these stakeholders, how they have been consulted and their concerns (up until 2003). These proposals and concerns of these various stakeholders have been incorporated, where appropriate in the many and various plans that constitute the SDP. The concerns and proposals of stakeholders elicited by the 2004 phase 2 consultations are presented in detail in Section 4.9.

Table 4-1: Stakeholders in the Social and Resettlement Consultation

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Interests, and Experience and Concerns</th>
<th>Consultation Process to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villagers along the proposed Downstream Channel: about 198 families</td>
<td>• Positive towards irrigation. • Concerned over impact on flooding and livelihoods.</td>
<td>Consultations about impacts held in 1997. Further, detailed, consultations about mitigation plans and compensation options to be carried out in 2004 by NTPC and RMU.</td>
</tr>
<tr>
<td>Villagers along the Transmission Line</td>
<td>• Interest in fair and prompt compensation (cash)</td>
<td>Consultations about impacts held in 1997.</td>
</tr>
<tr>
<td>Villagers with assets under Project Lands</td>
<td>• Yet to be consulted in detail about project impacts</td>
<td>Detailed design and impacts in the process of being determined. Consultations to commence in 2004.</td>
</tr>
<tr>
<td>Villagers along the Xe Bang Fai (89 villages), and hinterland (66 villages)</td>
<td>• Positive towards irrigation potential but concerns over exacerbated flooding and impacts on livelihoods.</td>
<td>Consultations about impacts held in 1997. Further, detailed, consultations about mitigation plans carried out in 2004 by NTPC and RMU.</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>• Representation in decision-making process and capacity building</td>
<td>Ongoing consultations and meetings since 1997, assessment of capacity, and inclusion in key institutions such as the RMU and DRWG.</td>
</tr>
<tr>
<td>Provincial Organizations</td>
<td>• Representation in decision-making process and capacity building</td>
<td>Ongoing consultations and meetings since 1997, inclusion in Resettlement Committee.</td>
</tr>
<tr>
<td>National Government (Ministries and STEA)</td>
<td>• National legal and policy framework, project viability, financing and representation in decision-making</td>
<td>Ongoing consultations and meetings since 1995, inclusion in Resettlement Committee, STEA part of National Level Consultations.</td>
</tr>
<tr>
<td>Mass organizations (LWU, LNF)</td>
<td>• Representation in decision-making process and capacity building</td>
<td>Ongoing consultations and meetings since 1997, inclusion in key institutions such as the RMU, DRWG and VRCs.</td>
</tr>
<tr>
<td>NGOs</td>
<td>• International standards for social and environmental aspects and project viability</td>
<td>Involved in some local and all national consultation meetings, reviewed documents and undertook site visits, including in 2003.</td>
</tr>
<tr>
<td>Panel of Experts (POE)</td>
<td>• International standards for social and environmental aspects and project viability</td>
<td>POE has carried on site visits and consultations since 1996 and has reviewed all relevant documents.</td>
</tr>
<tr>
<td>Donors and Financial Institutions</td>
<td>• International standards for social and environmental aspects and project viability</td>
<td>Involved in all national consultation meetings, reviewed documents and site visits from 1995.</td>
</tr>
<tr>
<td>Embassies</td>
<td>• International standards for social and environmental aspects and</td>
<td>Involved in all national consultation meetings, reviewed documents and site visits from 1995.</td>
</tr>
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</table>
4.5 CONSULTATION METHODOLOGIES

Methodologies and techniques developed for public consultation have been designed to suit the needs of each target audience. These techniques also require careful consideration in order to meet the requirements of the diverse and numerous participants involved. The techniques adopted include:

- **Visual representations:** The consultation teams developed and presented to villages, and the community in general, a range of posters containing pictures, diagrams and models.

- **General village meetings:** Posters are presented to villager meetings and explained by facilitators, in the Lao language, with ethnic language clarification, when required (1997, 1998 and 2004).

- **Small group meetings:** As required, small group discussions were also undertaken, generally on specific subjects, or as part of information gathering and census activities (1997 census on the plateau and 2001 socio-economic survey on the Xe Bangfai).

- **PRA techniques:** PRA techniques were used especially in villages along the Xe Bangfai in order to investigate and clarify the possible affect of the NT2 Project on the Xe Bangfai and thus village and agricultural land.

- **Socio-economic surveys:** The main socio-economic survey of plateau PAP was undertaken in 1998, in parallel to the population and assets census. Another survey of plateau villagers will be conducted just after Financial Close. The 2001 Xe Bangfai socio-economic survey sampled families from both Xe Bangfai and Nam Katang riparian villages, and also villages along the proposed alignment of the downstream channel.

- **Seminars and workshops:** Local and regional seminars and workshops and forums were held on specific resettlement issues.

- **NT 2 Project Information Centres:** The NT2 Project Information Centres were established in Vientiane, Nakai and Thakhek, these have been able to provide written material and information on the Project, deal with inquiries and requests for additional information and conduct periodic meetings with village and district representatives. This system provided access to information for people with questions. With the actual implementation of the Project, refreshed and updated Information Centre will be organised at Vientiane, Thakhek, Mahaxai and Nakai.

- **Mass media:** Information to the general public is generally disseminated through local and regional newspapers, and local and national radio and television interviews. In 2003 a project website was established (www.namtheun2.com) and all safeguards documents and other information is available to the worldwide audience.

- **Site visits:** Many field trips have been organised for stakeholders including potential project sponsors, international development and financial institutions, members of the international diplomatic corps, and local and national NGOs. Two site visits for Ambassadors and international organisations representatives in Vientiane were organized in late 2002 by the GOL and led by H.E. Mr. Soulivong Dalavong, former Minister of Industry & Handicraft. Visits for international and Lao local media was then conducted with 15 journalists and photographers, of which major international press agencies and a number of Thai press, as well as Radio Free Asia, a highly controversial broadcaster. It created a valuable basis for the media to produce a long series of media report on the Project all along 2003. Another series of three site visits for NGOs was conducted between February and March 2003, so that each group could measure in situ the actual environmental and social situation and challenges throughout the various Project areas. A total of 82 NGOs have been invited by the GOL to visit the Project site, though only 20 replied to the invitation and 15 actually attended the visits. Each visit was conducted during 3 days so that sufficient time was allowed for discussions between NGOs and the local populations. For each

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<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Interests, and Experience and Concerns</th>
<th>Consultation Process to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai stakeholders (EGAT, private sector, Gov’t)</td>
<td>International standards for social and environmental aspects and financing.</td>
<td>Involved in negotiations of the PPA, all national consultation meetings, reviewed documents and site visits.</td>
</tr>
</tbody>
</table>
visits, NT2 Project experts were available to answer openly to any question, while noting the concerns and advice of each NGOs. In addition, constructive debriefings at the GOL offices in Vientiane were organized on the fourth day of each visit to allow interaction between NGO and senior government officials in a different context.

Table 4-2 below outlines those tools that have been used to date for information dissemination and consultation with the various stakeholders in the Project.
## Table 4-2: Consultative Mechanisms Used with Key Stakeholders, or in Key Areas, in Relation to Social and Resettlement Issues.

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Key Information</th>
<th>Timing</th>
<th>Mechanisms and Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nakai Plateau villagers to be relocated: about 5518 in 1998.</td>
<td>Relocation Plans, site selection, village layout, livelihood scenarios, compensation, training</td>
<td>Formal consultations in 1997-2000. Regular consultations from 2001 as required.</td>
<td>RRA and PRA techniques. Information dissemination, meetings and discussions (village, group and individual levels) to create feedback loop – posters, booklets, information center, demonstration farms and visits to sites.</td>
</tr>
<tr>
<td>Villagers with assets under other Project construction lands.</td>
<td>Relocation plans, compensation and site selection if required</td>
<td>Regular consultations from 2003</td>
<td>Information dissemination, meetings and discussions (village, group and individual levels) to create feedback loop – posters, booklets, information center.</td>
</tr>
<tr>
<td>Villagers with assets under the proposed Downstream Channel</td>
<td>Relocation Plans, site selection, village layout, livelihood scenarios, compensation, training</td>
<td>Formal consultations in 1997 and 2003 and 2005 Ad-hoc consultations from 2007 as required</td>
<td>RRP and PRA techniques. Information dissemination, meetings and discussions (village, group and individual levels) to create feedback loop – posters, booklets, information center and visits to sites.</td>
</tr>
<tr>
<td>Villagers along the Xe Bang Fai.</td>
<td>Mitigation framework, project impacts along the Xe Bangfai, compensation, training and for directly affected families, site relocation and support services</td>
<td>Formal consultations in 1997 and 2003 and 2005 Ad-hoc consultations from 2004, as required for PAPs in direct impact zones</td>
<td>RRP and PRA techniques. Information dissemination, meetings and discussions (village, group and individual levels) to create feedback loop – posters, booklets, information center and visits to sites.</td>
</tr>
<tr>
<td>Villagers with assets under the proposed Transmission Line Corridor</td>
<td>Mitigation for project impacts, compensation and support services</td>
<td>Formal consultations in 1997 and 2005 Ad-Hoc consultations from 2005 as required for PAPs in direct impact zones</td>
<td>RRP and PRA techniques. Information dissemination, meetings and discussions (village, group and individual levels) to create feedback loop – posters, booklets, information center and visits to sites.</td>
</tr>
<tr>
<td>Local GoL Organizations</td>
<td>Project features, impacts and mitigation, resettlement, compensation and implementation schedule and budget as well as WB Safeguard Policies</td>
<td>Meetings, discussions and seminars from 1995 onwards Local, Regional and National level consultations from 1996</td>
<td>Training and capacity building seminars and workshops from 1997 in consultation techniques and participation as members of PCPD Teams. Assistance in setting up local consultation bodies and monitoring procedures.</td>
</tr>
<tr>
<td>Provincial Organizations</td>
<td>Project features, impacts and mitigation, resettlement, compensation and implementation schedule and budget as well as WB Safeguard Policies</td>
<td>Meetings, discussions and seminars from 1995 onwards Local, Regional and National level consultations from 1996</td>
<td>Training and capacity building seminars and workshops from 1997 in consultation techniques Assistance in setting up local consultation bodies and monitoring procedures as part of the Resettlement Committee. Translation of key project documents in Lao for distribution.</td>
</tr>
</tbody>
</table>
### Stakeholders

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Key Information</th>
<th>Timing</th>
<th>Mechanisms and Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Organizations (LWU, LNF)</td>
<td>Project features, impacts and mitigation, resettlement, compensation and implementation schedule and budget as well as WB Safeguard Policies</td>
<td>Meetings, discussions and seminars from 1995 onwards, Local, Regional and National level consultations from 1996</td>
<td>Training and capacity building seminars and workshops from 1997 in consultation techniques and participation as members of PCPD Teams Assistance in setting up local consultation bodies and monitoring procedures as part of RMU and other bodies Translation of key project documents in Lao for distribution</td>
</tr>
<tr>
<td>GoL (Ministries and STEA)</td>
<td>Project features, impacts and mitigation, resettlement and, compensation, implementation schedule and budget, WB Safeguard Policies</td>
<td>Meetings, discussions and seminars from 1995 onwards, Regional and National level consultations from 1996</td>
<td>Training and capacity building seminars and workshops from 1997 in consultation techniques and participation as members of PCPD Teams Assistance in setting up local consultation bodies and monitoring procedures Translation of key project documents in Lao for distribution</td>
</tr>
<tr>
<td>Local NGOs</td>
<td>Project features, impacts and mitigation, resettlement, compensation and implementation schedule and budget as well as WB Safeguard Policies</td>
<td>Local, Regional and National level consultations and briefings since 1996</td>
<td>Participation in Local, Regional and National level workshops and meetings and site visits Program linkages between RMU and local NGO activities Translation of key project documents in Lao for distribution</td>
</tr>
<tr>
<td>International NGOs</td>
<td>Project features, impacts and mitigation, resettlement, compensation and implementation schedule and budget as well as WB Safeguard Policies</td>
<td>National level consultations and briefings since 1997</td>
<td>Participation in National level workshops and meetings and site visits Translation of key project documents in English for distribution and websites</td>
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<tr>
<td>Thai Stakeholders</td>
<td>Project features, impacts and mitigation, resettlement, compensation and implementation schedule and budget as well as WB Safeguard Policies</td>
<td>National level consultations and briefings since 1997</td>
<td>Participation in Local, Regional and National level workshops and meetings and site visits Translation of key project documents in English for distribution and websites</td>
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</tbody>
</table>
Chapter 4: Public Consultation, Participation and Disclosure

4.6 LOCAL COMMUNITY CONSULTATIONS: PHASE 1

The PCPD teams established and trained in PRA techniques to facilitate a flow of information from local villagers were comprised of local Lao people, drawn from a range of backgrounds and experience in participation, social survey and education. Each team’s membership represented a diversity of socio-economic, cultural, gender, and generational perspectives. They worked solely within the villages and report directly to the RMU, which is responsible for all resettlement planning and implementation.

The first stages of PCPD were coordinated by a NTPC consultant, who was responsible for training, planning and reporting on consultation activities on the Plateau. The RMU has the overall responsibility for carrying out PCPD activities at the local level, and members have been participating since 1997. The RMU ensures that there is continuity in the consultation process through adequate representation of all interest groups. International experts continue to advise the RMU on local community participation techniques and reporting, as required during the detailed planning and implementation of the Project. Table 4-3 presents an overview of key PCPD activities carried in Phase 1 (1996-2003).

Table 4-3: Generalized Schedule for PCPD Phase 1

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</tbody>
</table>

4.6.1 Nakai Plateau Consultations – Phase 1

First Round of (phase 1) Consultations:
The first phase of the PCPD involved the Lao Women’s Union (LWU) preparing inventories in 1995 and surveys by CARE International in 1996 using Rapid Rural Appraisal techniques. These represented a
significant effort in information dissemination and collection, with studies focused primarily on the
villages in the proposed inundation area and limited coverage of the NBCA.

Second Round of (phase 1) Consultations:
The second phase of eliciting stakeholders concerns was conducted in 1997 by Social Scientist, Dr.
Stephen Sparkes, who led a PCPD team including Mr. Khampheng Ketavong, Mr. Khamphay
Khamthavong and Mr. Phensavanh Vongchandy from the Ministry of Culture and Information, and
Mme. KeoOula Suriydeth and Mme. Bouaka Keomani of the LWU. Methods used were participant
observation, sample interviews and Participatory Rural Appraisal (PRA) techniques (land use maps and
“dream maps” for relocation). Updating existing quantitative data on the villages was also carried out. All
the villages on the Plateau were visited from January to March 1997 and presentations and discussions
were held at all villages with the exception of the army village of Ban Nong Boua Kham (Ban Bo Cho)
and the new trading village of Ban Nam Nian. Staying in villages from 2-4 days gave the PCPD team
members the chance to familiarize themselves with village life. The goals of the PCPD activities on the
Nakai Plateau were as follows:

- Ensuring that all directly affected people living in the reservoir were aware of and understood the
  features and impacts of the Project and the implications of relocation
- Collecting information in regard to existing village development systems and decision making
  processes (defining their structure and efficiency)
- Documenting existing livelihood patterns, land usage and aspects of society (socio-cultural and
  economic) likely to be affected by relocation
- Conducting meetings with villagers to facilitate discussions of their concerns and aspirations and to
document these to channel to project decision makers, including villagers’ choice of locations,
  priorities and preferences regarding village layouts and house designs

The results of this PCPD work have been published by NTPC under the title of Observations Relating to
the Resettlement of People on the Nakai Plateau (May 1997).

Third Round of (phase 1) Consultations:
A third round of PCPD work on the Nakai Plateau was carried out in April and May 1998 by Mr. Hoy
Phoumvisouk (Head of RMU), Mme. Keo Oula of the Khammouane LWU, Mme Bouaka Gaemani of
the Nakai LWU and Mr. Khampheng of the Ministry of Culture and Information, again led by Dr.
Stephen Sparkes. After a two-day training course, which concentrated on lessons learnt from the previous
PCPD in the Project area and on planning, the team visited all villages on the Plateau. Ban Ka Oy, which
had not been visited during the first PCPD on the Plateau, was included. During this visit, discussions
were held on many issues raised previously and the proposed livelihood model was also presented and
feedback obtained.

Extensive use was made of visual aids, including posters, diagrams, pictures and a video explaining the
construction of the NT2 dam, resettlement and livelihood options. See Figure 4-1 to 4-3 for examples of
the participatory process and the most recent visual aids used.

The main goals of this round of PCPD on the Plateau were the following:

- Ensuring that affected people were fully aware of and understood the features and impacts of the
  Project and the implications of relocation by means of the video and discussions concerning
  livelihood model, house design and the village move
- Updating statistical information about population and village institutions as well as noting any
  changes in the socio-economic situation in the villages
- Conducting meetings with villagers to facilitate discussions of their concerns and aspirations in
  relation to the proposed livelihood model
- Identifying existing community development systems which could be utilized and improved during
  implementation
- Exploring potential mechanisms for establishing Village Resettlement Committees
The results of this PCPD are summarized in an NTPC report (PCPD on the Nakai Plateau, July 1998) and form the basis for subsequent revisions of the SDP. It also identified some items relating to planning PCPD activities for the next two years. Additional information was made available at Project Information Centers that were established in Ban Oudomsouk and Thakhek. These centers have provided further points of contact between the Project and villagers, dealing with inquiries and disseminating information in various forms.

Demonstration Farms and Pilot Village Consultations:
Since 1998 the RMU has been responsible for continuing PCPD and has conducted numerous site visits and meetings. The planning of the Pilot Village relocation has included many rounds of PCPD with villagers in Ban Sailom, Ban Pamanton and Ban Nong Boua concerning site clearing, village layout and design and participation.

In addition to the above mentioned PCPD activities, there have been meetings and consultation sessions with village leaders and villager participation on the Theun Duane Demonstration Farm and the Ban Nakai Neua Demonstration Farm and Nursery. These sites were used in training resettlers and have been jointly operated by NTPC through a local community based organization, EcoLao. At Theun Duane three volunteer families from Ban SopOn moved into new houses in May 1997 and have been trained in new agricultural and forestry techniques compatible with the livelihood model developed under the RAP. At the Ban Nakai Neua Demonstration Farm and Nursery, villagers in the nearby town participate in a range of activities relating to changes and improvements on present-day livelihood systems. School children at the village have been encouraged by local teachers to participate by growing vegetables in their own plots. Monitoring the progress and adaptability of villagers in relation to aspects of the new livelihood model will be vital to the success of the Project.

4.6.2 Downstream Areas Consultations – Phase 1
In April 1997 a PRA trainer conducted a two-week training workshop on PRA techniques in Thakhek for the PCPD teams. The team leaders for the new teams were members of the PCPD team that had worked on the Nakai Plateau. Hence their skills and experience could be shared with those being trained. Five teams, consisting of four people, carried out work in all areas to be impacted by the Downstream Channel and increased flooding along the Nam Phit and Xe Bang Fai. This includes zones 8, 9, 10, 11 and 12 and consists of more than one hundred communities. The goals of these PCPD visits consisted of:

- Ensuring that affected people were aware of and understood the features and impacts of the Project and their implications as where defined at that time;
- Documenting existing livelihood patterns, land usage and aspects of society (socio-cultural and economic) likely to be affected by the Project;
- Collecting information in regard to existing village development systems and decision making processes (defining their structure and efficiency); and
- Asking villagers how negative impacts might be mitigated or compensated.

For the most part, visits to villagers consisted of (a) disseminating information about the Project using visual aids and presentations, (b) land use mapping and discussions about livelihood and (c) collection of statistics about each village. Special attention was paid to flooding experiences, water use, fishing and agriculture techniques. The results of this work were compiled by each team and reviewed by an independent consultant, Barbara Franklin, for the World Bank (A Review of Local Public Consultations for NT2, Vientiane, Sept. 1997). The material, questionnaires and results have been compiled in four volumes, "Village Consultation & Participation on Downstream Channel Issues" (April 1997).

4.6.3 500 kV Transmission Line Corridor Consultations – Phase 1
PCPD work was carried out from 10 to 13 February 1997 in 5 villages in Xe Bang Fai District and in 8 villages in Savannakhet Province (Xaybulee and Khamthabouly Districts). This work consisted of meeting district representatives and holding consultation sessions with villagers.

The goals of these PCPD visits were:
Ensuring that affected people were aware of and understood the features and impacts of the Project and their implications; and

Collecting statistics on each village and identifying possible transmission line impacts.

4.6.4 Consultations with Bolikhamsai Villages – Phase 1

The Tai households of Ban Sop Hia and Ban Nam Nian will be resettled in Khamkeut District of Bolikhamsai because almost all of these Tai households are recent in-migrants from this area. Discussions have been ongoing since 1998 regarding this matter and a decision was jointly taken by the villagers and GoL to resettle these 47 Tai households to a resettlement site in Khamkeut District. As with the inhabitants of the Nakai Plateau, considerations taken in regard to relocating these villagers include location within familiar territory and neighbouring villages with similar Tai culture and language. The 32 Viet families in Ban Sop Hia have decided to stay near the reservoir, and thus will relocate in Nakai District, and participate in those livelihood development programs that they consider most appropriate to them.

Table 4-4: Summary of Phase 1 PCPD Events at the Local Level

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>1990</td>
<td>Socio-economic and household surveys of the Nakai Plateau undertaken for SMEC EIA</td>
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<tr>
<td>1990-1991</td>
<td>Sample health surveys and studies of the Nakai Plateau for the SMEC EIA</td>
</tr>
<tr>
<td>1994-1995</td>
<td>Sample village health surveys of the Nakai Plateau for the TEAM EIA</td>
</tr>
<tr>
<td>1994/95 Dry Season</td>
<td>Health survey of sample villages on Nakai Plateau and Gnommalat Plain by Institute of Malariaology</td>
</tr>
<tr>
<td>June 1995</td>
<td>Census and surveys of household assets of plateau villagers undertaken by LWU, plus photos of every house and owner</td>
</tr>
<tr>
<td>1995/96 Dry season</td>
<td>Parasitology and Entomology, Vientiane, Lao PDR and the Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand</td>
</tr>
<tr>
<td>January – March 1996</td>
<td>Cultural and ethnographic survey and socio-economic survey, undertaken by CARE</td>
</tr>
<tr>
<td>April – May 1996</td>
<td>Project awareness and villagers attitude survey for selected villages on the Nakai Plateau</td>
</tr>
<tr>
<td>May 25, 1996</td>
<td>Meeting for information dissemination and voicing of concerns. District, Provincial and NTPC officials. NTPC Nakai Guest House</td>
</tr>
<tr>
<td>June 4, 1996</td>
<td>Information briefings on Nakai Plateau by District, Provincial and NTPC officials at the following villages: Ban Nakai Neua, Ban Nakai Tai, Ban Sop On, Ban Sop Phene, Ban Done, Ban Khone Khen, Ban Thalang and Ban Sailom</td>
</tr>
<tr>
<td>November 1996</td>
<td>Involvement of local villagers in Demonstration Farm lots and Agricultural Developments</td>
</tr>
<tr>
<td>December 1996-May 1997</td>
<td>Appraisal of the livelihood systems and decision-making structures within villages. Recording of villager preferences and concerns with regard to resettlement for all Nakai Plateau villages. Conducted by Social Scientist, Dr. Stephen Sparkes and local team</td>
</tr>
<tr>
<td>January 31, 1 February 1997</td>
<td>Inception meeting for Resettlement Management Unit (RMU) and four District Resettlement Working Groups.</td>
</tr>
<tr>
<td>January – February 1997</td>
<td>Survey of resettlement preferences of affected villages in Khamkeut District</td>
</tr>
<tr>
<td>March 1997</td>
<td>Survey of villager attitudes to the Project and related concerns of sample rice farming villages in the Gnommalat District. Conducted by Social Scientist, Dr. Stephen Sparkes, and local team</td>
</tr>
<tr>
<td>Jan-April 1997</td>
<td>Health Reconnaissance Survey by John Storey, Public Health Specialist</td>
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<td>April 11, 1997</td>
<td>Meeting on resettlement/livelihood issues, Ban JatSan, Nakai, t (BPKP Resettlement village)</td>
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<tr>
<td>April 24-May 5, 1997</td>
<td>Training course in participation and consultation techniques for new PCPD teams in Thakhek by PRA trainer, Paul Chatterton</td>
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<tr>
<td>May 1997</td>
<td>Consultations of affected villages in the downstream area (Gnommalat, Mahaxai and the upper and lower Xe Bang Fai) by 5 PCPD teams under the direction of Mary Diab</td>
</tr>
<tr>
<td>June 5, 1997</td>
<td>District Workshop on scoping and methodology for the RAP and EAMP. Ban Oudomsouk</td>
</tr>
<tr>
<td>April 22-May 18, 1998</td>
<td>PCPD team visits to Plateau for feedback on the livelihood model, house designs and village move preparation. Conducted by Dr. Stephen Sparkes</td>
</tr>
</tbody>
</table>
4.7 **LOCAL CONSULTATIONS AND INFLUENCE ON PROJECT PLANNING – PHASE 1**

There has been a direct correlation between the consultation and participation process and the decisions made during Project planning. Feedback from stakeholders has been incorporated or has influenced Project planning and designs throughout the design and planning process.

For example, Table 4-6 outlines the role of PCPD in various activities related to the development and testing of the Resettlement Action Plan. Table 4-4 further outlines some of the main points that have been raised by local stakeholders during some of these PCPD events, and illustrates how ideas and concerns at the local level have been integrated into project planning.

<table>
<thead>
<tr>
<th>RAP Activities</th>
<th>Implementation by</th>
<th>PCPD Support</th>
<th>Starting Date</th>
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</thead>
<tbody>
<tr>
<td>Population census and assets inventory</td>
<td>RMU and DRWGs</td>
<td>Information collection and Registration</td>
<td>10/98</td>
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<tr>
<td>Forest Management Development Program</td>
<td>RMU and RO</td>
<td>Consultations and feedback</td>
<td>1/01</td>
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<tr>
<td>Pre-location health and education programmes</td>
<td>RMU with TA from NGOs or GoL</td>
<td>Consultations</td>
<td>1/01</td>
</tr>
<tr>
<td>Community Forest Association</td>
<td>RMU and Local Authorities</td>
<td>Consultations</td>
<td>2/01</td>
</tr>
<tr>
<td>Pilot Village planning and layout</td>
<td>DRWG, RMU and RO</td>
<td>Information dissemination, consultations and feedback</td>
<td>6/01</td>
</tr>
<tr>
<td>Village workshops on regulations, forestry association, livelihood and organisations</td>
<td>RMU, VRC and selected villagers from Plateau Villages</td>
<td>Information dissemination, consultations, feedback and detailed planning</td>
<td>Ongoing in 2002</td>
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<tr>
<td>Theun Douane farm evaluation</td>
<td>RMU, DRWG and technical experts</td>
<td>Evaluation and consultations</td>
<td>2002</td>
</tr>
<tr>
<td>Livelihood model options</td>
<td>RMU (with TA from RO)</td>
<td>Consultation and feedback</td>
<td>Ongoing from 2002</td>
</tr>
<tr>
<td>Location of new village sites and village layout design</td>
<td>RMU, DRWG, RO</td>
<td>Consultations and feedback</td>
<td>2003</td>
</tr>
<tr>
<td>Pilot Village relocation</td>
<td>RMU, DRWG</td>
<td>Consultations with villagers</td>
<td>2003</td>
</tr>
<tr>
<td>Youth Organisation Workshop on HIV</td>
<td>RMU, Youth Organization members from villages and District and Health experts</td>
<td>Health information dissemination</td>
<td>Ongoing from 2003</td>
</tr>
<tr>
<td>Village headmen Workshop</td>
<td>VRC, RMU and DRWG</td>
<td>Consultation and feedback</td>
<td>2003</td>
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</table>

The following Project design features can be attributed to input that resulted from public consultation, and illustrate how feedback on the interests, needs and aspirations of project-affected people has played a role in the overall process of developing the project.
4.7.1 Influence of Consultations on Plateau Reservoir Resettlement Area Issues

Throughout the process there has been agreement to consult Resettlers on the Village Development Plans and to seek input and advice as to preferences of the Resettlers. Careful attention has been given to the maintenance of ethnic and cultural integrity for the affected persons has been included in the implementation of the RAP.

Numerous options have been examined to minimize the number of affected villages. These options have included the lowering of reservoir heights, in an attempt to reduce the number of families requiring resettlement. As most of the population on the Plateau live along the river, just above the normal flood level of EL 525, the maximum operating height would need to be reduced to about this height before the number of people to be resettled would drop significantly. Such a change would render the Project uneconomic because of the reduction in storage volume and therefore power generation.

Public consultation for the Study of Alternatives supported the present reservoir level. The resettlement plan is, however, such that there are no host communities affected due to the fact that resettlement sites are adjacent to old villages and for the most part within existing village territory. Selection of resettlement sites, livelihood models, housing styles and other infrastructure recommendations occurred with careful consideration of the current living and livelihood patterns of the affected persons.

4.7.2 Influence of Consultations on Selection and Preparation of Resettlement Sites

The primary factor in determining the size and location of the resettlement villages must be the preference of the Resettlers themselves, linked to the capacity of the sites to provide the necessary economic opportunities. Thus, efforts have been made to select sites within existing traditional territories because such cultural continuity and familiarity potentially reduces disruption or stress created by the resettlement process (see Chapter 8 and 19). The site selection process also includes assessment of land use capability in addition to the social and cultural aspects of territorial spirits, kinship, cultural practices and traditional resource use areas. Broad areas were identified in 1994 based on the initial discussions with the Resettlers. Areas that were originally identified met the following criteria:

- Moderately suitable for agriculture (attributes such as soil, topography, slope, drainage, etc);
- Easily accessible;
- Water supply is available the year round; and
- Near the reservoir as this was the stated preference of the villagers; and

The two broad potential resettlement areas - lowland areas (Gnommalath and Mahaxai Districts) and the Nakai Plateau - where presented to villagers in the Public Consultation and Participation Process (PCPD) in April and May 1998. The villagers choice of the Nakai plateau as their resettlement area was due to the fact that (a) the area is part of their current traditional lands and (b) the area is on the shores of the reservoir, which the villagers could use a fisheries resource. Thus, the inhabitants of the Nakai Plateau have overwhelmingly chosen to remain on the Plateau, despite being offered paddy land on the plains. Most people will be relocated to areas within their existing administrative village boundaries in surroundings familiar to them. The capacity of the Nakai Plateau areas - in the eyes of the resettlers - to provide the necessary resources for the livelihood of Resettlers was assessed in participatory sessions during the 1996/97 dry season. Table 4-6 summarizes the results of these consultations, which included PRA map-making and sketching of “dream” maps of future villages.
### Table 4-6: Resettlement Preferences of Villages on the Nakai Plateau, 1997

<table>
<thead>
<tr>
<th>Village</th>
<th>Within vicinity</th>
<th>Water source</th>
<th>Road access</th>
<th>Forest access</th>
<th>Grazing areas</th>
<th>Paddy</th>
<th>Orchards</th>
<th>Veg. gardens</th>
<th>Market</th>
<th>Well water</th>
<th>Electricity</th>
<th>Toilets</th>
<th>School</th>
<th>Dispensary</th>
<th>Temple</th>
<th>Village hall</th>
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</table>

* Ban Sop Ma includes three hamlets: Ban Sop Ma, Ban Hat Khamphane and Ban Keng Nyao
** Ban Sailom includes three hamlets: Ban Nong Boua Kham, Ban Sailom and Ban Pamanton
*** Ban Sop On includes the three households of Ban Nildhom 3

### 4.7.3 Influence of Consultations on Village Configurations

PCPD teams undertook extensive community consultation in 1997 and 1998 to elicit preferences on village configuration. In 1997 this involved the Resettlers developing ‘dream maps’ showing features they would envisage as part of their new village. The results of this map-making exercises reveal that villagers wanted the following features for their new villages:

- Orientation along roads with each house having road access. This is different to the traditional villages where the orientation is along the river. The road is seen as representing progress and a link with the outside world that offers markets and potential wage labour.
- Improvements such as electricity, access to running water and privately owned rather than community shared toilets. The preference was for each household to have their own garden area.
- Non-residential buildings such as the school, dispensary, pump-house, village hall and religious structures should be located outside residential areas, as they are in traditional villages.
- Surrounding the village, the Resettlers requested fields for growing rice and crops such as corn, sugar cane or larger plots for vegetables. Some of the maps villagers drew located forests and grazing areas further afield.

Residential areas should consequently form the core of the village surrounded by gardens and fields and with forests at a greater distance. This kind of plan creates a sense of security and allows for continual social interaction. The actual plan of the new villages will depend on the choice of location for each new site and will be based on further discussions with villagers on the location of households, buildings and fields.

### 4.7.4 Influence of Consultations on House Design

House designs have also been developed through consultation. The design incorporates aspects of traditional house designs. The home (heun) has a private sphere consisting of sleeping quarters, a public sphere for receiving guests and entertaining (verandah) and a production sphere (kitchen for cooking food, washing and growing spices and vegetables). These new structures encompass traditional features including: a verandah, kitchen area, two doors in accordance with kinship taboos, a construction on poles.
with two ladders (to the kitchen and to the verandah) with an odd number of rungs, and doors which open in a direction other than the west. No house will be smaller than the original dwelling, and the actual size will depend on the number of inhabitants (RAP, 2002).

4.7.5 Influence of Consultations on Pilot village

With the implementation of the development of the Ban Nong Boua Pilot Village Relocation the consultation process has been tested and proven extremely successful. Villagers have been consulted and they have participated fully in a range of activities and decisions, such as:

- The arrangement and allocation of housing plots, according to a fourfold division of clans in this particular village;
- The arrangement and location service buildings, such as the school, nursery etc;
- The new idea to build a children’s nursery;
- The arrangement and allocation of agricultural fields;
- The design of each dwelling, which is entirely the families choice;
- The participation of the families in building their own dwelling under the supervision of a qualified carpenter, resulting in differences in details that express the owners’ individual tastes and desires.

4.7.6 Influence of Consultations in Downstream Areas

- A purpose-built downstream channel was designed to accommodate the release of discharged water from the power station. This represented substantive additional cost to overall Project costs and was an alternative to channelling the water into the Nam Kathang which would have caused environmental and social impact to riparians of the Nam Kathang. The current design of the downstream channel minimizes the resettlement and social impacts. It will stone or concrete lined and partially above natural ground level, thus allowing a reduction in width and reduction in land requirements. The detailed routing for the downstream channel will be based on the results of consultations with people directly affected.
- The construction of a regulating pond to minimize fluctuations in daily discharge, and thus minimize (or avoid) the erosion that would otherwise result.
- The construction of bank protection at the downstream channel confluence with the Xe Bangfai, thus minimizing erosion that would affect downstream riparians.
- Construction of a re-oxygenating facility in association with the regulating pond to ensure high quality water for downstream areas; in terms of cleanliness, oxygen content and temperature.
- Construction of a diversion gate to allow some of the Regulating ponds water to be diverted to the Nam Kathang Nyai to allow villagers to have water in the dry season dependant on current design changes.
- There is a guaranteed minimum flow into the downstream channel so as to sustain fish populations. In effect, it is anticipated that many people may end up relying on the future fisheries from the downstream channel for a livelihood.
- The commitment to shutdown operation before natural over bank flooding occurs in the Xe Bangfai, so that the Project does not exacerbate natural floods.
Table 4-7: PCPD and Influence on Project Planning

<table>
<thead>
<tr>
<th>Topic</th>
<th>Comment(s) by stakeholders</th>
<th>Influence on Project Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Design</td>
<td>Minimisation of resettlement and compensation downstream of the powerhouse.</td>
<td>A Downstream Channel will be constructed instead of release into the Nam Katang, reducing the number of households that would be affected, plus providing opportunities for gravity irrigation</td>
</tr>
<tr>
<td></td>
<td>Minimisation of resettlement and compensation for new roads.</td>
<td>Construction of roads and upgrading of roads to follow existing road alignments and avoiding inhabited areas</td>
</tr>
<tr>
<td></td>
<td>Minimisation of resettlement and compensation regarding water releases from the powerhouse</td>
<td>A Regulation Pond will be constructed to regulate flows (caused by peak production) and thus avoid unnecessary negative impacts along the Xe Bang Fai river communities</td>
</tr>
<tr>
<td></td>
<td>Improved navigation and access from and to markets at Nakai</td>
<td>Navigation channel in the reservoir to ensure that boat traffic will be unimpeded by the raise and fall of the reservoir</td>
</tr>
<tr>
<td>Reservoir related relocation Site Selection</td>
<td>Majority expressed a desire to remain on the Nakai Plateau - not to move to paddy land in the lowlands</td>
<td>Resettlement Planning now focussing on the Nakai Plateau and relocation to downstream areas not considered</td>
</tr>
<tr>
<td></td>
<td>Desire to remain within village area, that is within spirit boundaries and land-use boundaries</td>
<td>Most relocation sites are located inside or as close as possible to traditional spirit and land-use boundaries</td>
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<td></td>
<td>Desire for improved services and electricity</td>
<td>Improved health and education services to be provided, and all sites to be provided with electricity and new roads</td>
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<td></td>
<td>Desire, especially by women, for village layout to resemble existing kinship relationships</td>
<td>Villages, headed by the VRC, will be responsible for planning the location of houses according to kinship relations, clans and ethnic affiliation, as demonstrated in pilot village</td>
</tr>
<tr>
<td>House designs</td>
<td>Most households stated that they would like to have a ‘modern’ or Lao style house on poles with a separate kitchen area</td>
<td>Several rounds of discussions and drafting designs of houses have been carried out with villages, and modification to structures and sizes made accordingly. See Pilot village designs.</td>
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<td></td>
<td>Those with large houses requested to have the option of relocating old houses or salvaging materials</td>
<td>Options for house designs and salvaging of materials included in the resettlement schedule and budget, and allowances for differences in house size and for the formation of new houses for families that plan to split, as in the case of new couples residing with parents</td>
</tr>
<tr>
<td>Livelihood Model</td>
<td>All villagers were interested in obtaining paddy land as part of the livelihood model</td>
<td>Initial drafts of the model in 1997 did not include such provisions due to the cost and difficulties in obtaining suitable paddy land beside the reservoir. However, the project will ensure that where irrigation is available, paddy cultivation will be trialled, constraints identified and all efforts made to develop wet season paddy as part of the irrigated agriculture areas or in the drawdown zones.</td>
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<td>All villagers requested a desire to continue collection of NTFPs and have access to forests for grazing</td>
<td>Village sites will allow grazing in managed resettlement forest areas and the drawdown zone. Access to NTFPs in the NBCA (controlled use areas) will be allowed</td>
</tr>
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<td>Villagers were interested in fishing as an important source of food and for sale once the reservoir is inundated</td>
<td>A fishing plan has been designed to ensure that fish resources remain in the hands of Plateau settlers and not in those of outsiders</td>
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<td>Villagers requested assistance and training as well as equipment for the new livelihood scenarios</td>
<td>Training, education and necessary equipment will be provided to assist villagers in any changes to existing livelihood systems – improved agricultural tools, seeds, nets, etc.</td>
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### Topic: Rituals

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<tr>
<th>Comment by stakeholders</th>
<th>Influence on Project Planning</th>
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<tbody>
<tr>
<td>Request for rituals to be held for moving villages and houses</td>
<td>Provisions made in moving allowances for individual and collective rituals to be carried out by local ritual experts</td>
</tr>
<tr>
<td>Auspicious day to commence relocation</td>
<td>Local ritual experts and elders to decide on the actual date to commence relocation in conjunction with RMU staff</td>
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### Topic: Village Composition

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<thead>
<tr>
<th>Comment by stakeholders</th>
<th>Influence on Project Planning</th>
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<tbody>
<tr>
<td>All villages with the exception of Sop Hia and Nam Nian expressed a desire to be relocated as a whole</td>
<td>No villages are to be split up on the Nakai Plateau</td>
</tr>
<tr>
<td>The Vietic Groups in Sop Hia and Nam Nian wished to be relocated separately from the Tai</td>
<td>Tai households are to be relocated separately at a site in Bolikhamsai Province. Special considerations are being made for the small Vietic groups to have a separate village sub-unit in the vicinity of the new site for Talang</td>
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<tr>
<td>A few households have expressed a desire to relocate in areas outside the resettlement sites, with relatives in the lowlands or by making their own arrangements</td>
<td>Provisions have been made for a one-off cash payment for these families wishing to ‘self-relocate’ but follow-up will be carried out thorough monitoring of initial relocation and adjustment</td>
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### Topic: Pilot Village Relocation

<table>
<thead>
<tr>
<th>Comment by stakeholders</th>
<th>Influence on Project Planning</th>
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<tr>
<td>Layout of Nong Boua in cluster formation</td>
<td>Several layouts were presented to villagers and after extensive consultations it was decided that the village would be a cluster form and divided into four sub-groupings based on clan as opposed to earlier plans with houses along the road</td>
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<td>Temporary relocation in allotted fields ahead of permanent resettlement</td>
<td>Several villagers have moved in advance of the actual resettlement and built field houses in anticipation of the actual move – this allows a start up of the livelihood model in advance</td>
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4.8 LOCAL COMMUNITY CONSULTATIONS: PHASE 2

In 2004, the PCPD entered Phase 2, a second round of extensive consultations with all stakeholders at the local, region, national and international levels with the objective of finalising of the project design, including all social and resettlement strategies and procedures. At the local level, the NTPC Resettlement Office (RO) continues to provide technical support to the GoL RMU office, which has the lead role in the PCPD activities. A summary schedule for this process is presented in Table 4-18 below.

Local level consultations are primarily conducted using interactive workshops and presentations, backed up by the provision of translated summaries of sections of the RAP and EMDP in Lao, and the placement of posters illustrating expected project impacts. This phase of consultations was organised and conducted in three groups, representing the three main groups of PAPs to be consulted are (i) plateau resettlers, (ii) villagers along the Xe Bangfai, and (iii) villagers with assets under Project Lands. A fourth group - the NPA villagers - is dealt with in the SEMFOP.

4.8.1 Phase 2 Consultations on the Plateau and along the Xe Bangfai

The general approach of the Phase 2 of Consultations (July-September 2004) was as follows;

4.8.1.1 Consultation materials development

The NTPC’s RO staff and RMU staff, assisted by an independent consultations specialist, developed two sets of materials, (a) facilitators information manuals, and (b) posters. The three facilitators information manuals developed were:

1. General NT2 Handbook: summary of whole project, including main project features, implementation schedule and zones of impacts and compensation plans.
2. Plateau handbook: maps of proposed reservoir, relocation sites, summaries of livelihood options
3. Xe Bangfai handbook: presenting information on water quality and flow, predicted positive and negative impacts, mitigation processes, structure of compensation and grievance procedure.

These manuals formed the basis for pre-consultation preparation and orientation for RMU, government staff and Consultation experts who supervised the process.

Posters developed include:

General NT2 Posters:
   Poster 1.1: sketch overview of whole NT2 project reservoir to Xe Bangfa
   Poster 1.2: sketch illustrating steps of grievance procedure

Plateau related Posters:
   Poster 2.1: components if community commercial forestry livelihood option
   Poster 2.2: components of irrigated agriculture livelihood
   Poster 2.3: components of reservoir fisheries livelihood options
   Poster 2.4: components of livestock raising livelihood options
   Poster 2.5: other (off farm) livelihood activities
   Poster 2.6: a summary of livelihood options

Xe Bangfai (downstream) Posters
   Poster 3.1: weekly (daily) discharge from the NT project, in wet and dry season
   Poster 3.2: impact of NT releases on XBF level (river cross section) Mahaxai, wet and dry season
   Poster 3.3: impact of NT releases on XBF level (river cross section) Rd 13 bridge, wet/dry season
   Poster 3.4: general implementation schedule of the XBF program 2004 to 2009 and onwards
   Poster 3.5: summary of 5 negative impacts and 5 positive impacts of the project
   Poster 3.6: compensation process and possible options for loss to mainstream fisheries.
   Poster 3.7: general process for resolving problems with water quality for domestic use
   Poster 3.8: compensation restoration for loss of flooded riverbank gardens
   Poster 3.9: general process for resolving problems with riverbank erosion.
Figure 4-1: NT 2 Consultation Posters, (a) Sketch of Geographical Area, and (b) Grievance Procedure
Figure 4-2: Examples of Resettlement Consultation Posters
Figure 4-3: Examples of XE Bangfai Consultation Posters
These materials are both comprehensive yet easily understandable by plateau resettlers. The posters are required for two purposes, (a) for use during facilitated workshops - which requires the materials to be large enough to be easily viewed during group workshops, and (b) for distribution to villages, for permanent display in villages.

4.8.1.2 Facilitator training - development of techniques and tools

The phase 2 of the local level consultations developed two sets or groups of facilitators:

(a) District level facilitators - mainly Districts staff - whose main role is to train and then assist the village facilitators; and

(b) Villager facilitators - actual villagers chosen by villagers based on certain criteria - who, following training then become the main facilitators for the whole village and then focus group workshops.

Experienced consultation experts trained all District facilitators and the first group of village facilitators (after which District facilitators trained the remaining villages) in the use of these materials, with special emphasis on adult education of ethnic minorities. During this training, the consultation facilitators manual was used as a guide and the training also included:

(a) The use of a simple language and comprehension tool to check that indeed all participants understand Lao (as found in earlier surveys), but to identify any participants who may require further clarification based on their own language

(b) Facilitators are also trained in methods to ensure the full participation of women, an important toll being the conduct of separate male and female workshop sessions and choice sessions.

4.8.1.3 Whole village workshop and focus group discussion of project mitigation

These workshops had the double objectives of (a) dissemination of information and explanations about the main project features and resettlement plans, and the new livelihood options and (b) eliciting villager concerns about these and any proposal to improve them. A third objective was to establish a group of village facilitators, who would continue facilitation during the preparation and then the actual resettlement process.

The workshops were undertaken following five general steps.

1. Introduction to the village, and then selection/voting of village facilitator group

2. Training of the villager facilitator group by the District facilitator team, in order to both (a) understand the project, its impacts and mitigation and compensation planned, and (b) develop some facilitation skills.

3. Village level workshop whereby facilitators describe the project etc the village.

4. Break out into smaller focus groups (gender disaggregated) where each aspect of the project, its impacts and the mitigation and compensation measures are discussed in detail, and the concerns and proposal of villagers are voiced and recorded. These groups are also facilitated by the VFG

5. Reforming of the whole village group, in which each focus group presents a report of their discussions and proposals.

6. The concerns and proposals are summarised by the village and district facilitator team, and provided back to the RO and RMU.

The actual conduct of the village consultations will vary from village to village and between zones. The plateau villagers are much more aware of the project impact and the proposed livelihood alternatives and thus more time was spent on concerns and proposals for improving the program. On the other hand, the Xe Bangfai villagers are not as aware of the predicted project impacts, and thus a focus of the consultations was explaining these to them and eliciting their first general responses.
Figure 4-4: Photos of Plateau Village Consultations, Phase 2 (2004)
4.8.1.4 Follow-up and on-going consultations

The following activities will be undertaken to respond to villagers original proposals (from the mid 2004 consultations) and to continue the process thru into implementation

**for the plateau**

Consultations on-going, prior to and leading up to the actual relocation

(a) workshops for those who were not present in the earlier round;
(b) operation of the village information centres, or village notice boards;
(c) NTPC/GOL response workshops;
(d) visits to Ban Nong Boua, to enable villagers to more easily visualise the agricultural and livestock components of the new livelihood options.
(e) Visit to proposed resettlement sites, to enable a better choice of resettlement site
(f) Family by family livelihood consultations. Firstly, to assess the villagers’ understanding of project impacts, and the potential compensation schemes. If they have demonstrated a good understanding of these, then their opinions will be formalised to indicate which types of compensation they would favour, or consider the most feasible, sustainable and economic. To include 'timing' issues.

**for the Xe Bangfai**

(a) workshops for those who were not present in the earlier round;
(b) operation of the village notice boards;
(c) Visits to other XBF villages: For those villages who are isolated and possibly not familiar with the compensation and development options proposed, visits to other villages along the Xe Bangfai that have developed, for example, fish ponds and irrigated gardens, will be conducted. This will enable villagers to more easily visualise the fisheries, gardening and household water supply components of the compensation options, and thus make a better choice of these.

(d) Visits to Theun Hinboun Villages

(e) detailed consultations regarding compensation and development options and activities - this will be undertaken by a contracted team who will, over a one year period undertake a feasibility study for the Xe Bangfai compensation and livelihood restoration program.

Table 4-8: Schedule for main activities of Phase 2 Consultations, up to Financial Close

<table>
<thead>
<tr>
<th>Main Activity of Phase 2 Consultation</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
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<tbody>
<tr>
<td>1 Consultation materials preparation</td>
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<tr>
<td>2 RMU and DWG Facilitator training</td>
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<td>3 Plateau village consultations (17 villages)</td>
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<td>4 NT watershed village consultations</td>
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<td>5 Xe Bangfai village consultation (89 vills)</td>
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<tr>
<td>6 Establishment of VIC and Boards</td>
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<tr>
<td>7 Feedback/response consultations, plateau</td>
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<tr>
<td>8 Feedback/response consultations, XBF</td>
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<tr>
<td>9 Ongoing consultations: Plateau</td>
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<tr>
<td>10 Ongoing consultations: Xe Bangfai</td>
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<tr>
<td>11 Integration of feedback before appraisal</td>
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<tr>
<td>12 Disclosure of SDP</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>13 Final revision for implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.8.2 PAP Consultations for Project (construction) Lands

The Phase 2 Consultation with PAPs in relation to Project (construction) Land impacts is somewhat different from the Plateau and the Xe Bangfai consultations because:

a) On the one hand, the exact area to be impacted (required to be acquired and then handed over to the contractor and/or the NTPC) is not yet known - and will only be known progressively as engineering designs and land requirements are finalised.

b) On the other hand, if a villagers land, asset or livelihood is impacted by a Project Land - is required to be acquired - then this impact is known to be total (although it may be either permanently or temporarily required - but in most cases the former);

c) Project Land impacts will be assessed and compensation given and effected in a relatively short period of time, probably over a period of 1 to 3 years, compared to 8 or so years programs for the Plateau and the Xe Bangfai;

d) In most cases relocation will not be required; and

e) Project lands are distributed over a large area, with a range of village and land use types, and a range ethnic types etc.

For this reason, the consultations in relation to Project Lands are closely linked to - are an integral part of - land and assets and livelihood restoration and compensation negotiations with villages and then informal affected families. The following consultations activities are in the process of being conducted and should be completed before Financial Close:
• **Remote Information gathering and materials preparation**
The initial gathering of spatial data and information via detailed satellite imagery already undertaken is not actually public or participatory consultation, and the rationale and process for this is activity is described in Volume 4. Nonetheless, the result if this study - which presents villagers’ lands and assets underlying the various project lands polygons, must be prepared for dissemination, explanation and discussion with PAP villagers.

• **Socio-economic survey and Participatory Land and Village Appraisal**
A socio-economic survey of all potentially affected persons will them be undertaken, together with population census. At the same time village PRA will investigate in each village land and forest use of that village, both in and around the Project Land polygon.

• **Information dissemination**
Concurrent to the socio-economic survey and village PRA, information and data on the project lands and assets and land assessed to be under or affected by these Project lands will be disseminated to each village. This will take the form of a large satellite photo/map displayed in the village. If the village has no appropriate notice board, then one will be installed by the Project.

Also disseminated to PAPs will be an explanation of their entitlements and the potential compensation schemes and measures.

• **Land and assets registration**
Also concurrent with the socio-economic survey, PFVA and the information dissemination will, the Projects Lands land and assets registration process will be implemented (Volume 4).

• **Compensation planning consultations (and compensation agreements)**
One to two months after the information dissemination, socio-economic survey and land/assets registration, village consultations will be held to discuss and finalize the compensation measures to be adopted. This will include:
(a) A review if the project impacts;
(b) Review of the socio-economic data; and
(c) Review of potential compensation schemes.

NTPC's RO and the RMU will integrate results of consultations into the planning of detailed compensation plans.

• **Compensation agreements**
Consensus and agreements in relation to the compensation program will be formalized by the drafting and signing of a Compensation Agreement with each land and assets holder affected.

**Table 4-9: Schedule for (Phase 2) Consultations with PAPs in Project Lands**

<table>
<thead>
<tr>
<th>Main Activity of Phase 2 Consultation</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Information gathering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Materials preparation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Socio-economic survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Participatory Land and Village Appraisal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Information dissemination</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Land and assets registration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Compensation planning consultations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Compensation agreements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Ongoing PCP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.9 INTEGRATING PHASE 2 CONSULTATIONS INTO THE SDP

Phase 1 local consultations where undertaken early in the program design process, and villager concerns raised then where used to develop the social and resettlement program between 1997 and 2003. The resulting program was published, after various revision, as the SDP Advanced draft of 2004 was the basis for the second round of consultations - although the information given to villagers was necessarily summary in nature and focused on the aspects of crucial concern to the villagers.

One objective of the village workshop was to elicit the concerns of the villagers about the impacts and pans explained to them, and especially to hear of their proposal to improve the programs. In analysing the proposals coming from villagers in deciding how the project (NTPC and) GOL should and will respond, it become apparent that their proposal fall into three general categories:

(i) proposals on issues which are already considered or included in the Concession Agreement and SDP;
(ii) proposals that are currently not in the CA or SDP but are worth considering, appear both reasonable and directly related to the program and thus should be considered, and a response given by, the NTPC and GOL. They may be included in the plan; and
(iii) proposals which are either obviously unfeasible or unreasonable, or are outside the mandate and responsibility of the NT2 protect.

Table 4-10 and 4-11 presents the proposals of villages on the plateau and along the Xe Bangfai respectively, allocated to either one of the above three categories, and ranked according to the score or the number of villages that raised the proposals. Obviously, the higher the score the more common and widespread is the proposal, and on this basis the more seriously that the NTPC and GOL should consider it. These proposals are now being studied, and a detailed response is being discussed and drafted for each proposal, a summary of which is presented below.

4.9.1 Influence of 2004 Consultations on Nakai Resettlement Issues

The consultations on the plateau were able to present to villages a reasonably well developed strategy and plans for resettlement and development on the plateau. However, as Table 4-7 reveals that large number of proposal raised by the villagers are already in the CA and/or the SDP. This suggests that either:

(a) the complexity of the whole plateau program, together with most villagers being unable to read, meant that only the essential aspects, a simplified versions of the plans was explained to the villagers during the one day information dissemination, and thus, they did not realise all of the contents of the plan and policy.
(b) in some cases, villagers may have realised that their proposals where in the plans, but they wanted their voices and concerns to be heard again, to reinforce the requirements.

In either case that fact that all these proposals are in the Plans suggests that it is appropriate, and that its provision and activities should indeed be carried through.

However, a number of important issues were raised that are not currently included in the Plans but will be considered since they are relevant, related to initiatives and may be feasible. These issues are presented in Table 4-10.
Table 4-10: Indicative Response to Villagers’ Proposals Currently not Covered by the SDP.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Probable response</th>
<th>SDP ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger agricultural areas:</td>
<td>Allocation of upland degraded forest areas for rainfed cropping (where feasible) and drawdown area cropping and foraging.</td>
<td>Chap 19</td>
</tr>
<tr>
<td>Modifications to house designs</td>
<td>Actually, already in the SDP - final design up to the householder</td>
<td>Chap 20</td>
</tr>
<tr>
<td>To have large areas for livestock raising</td>
<td>Already in SDP, but will be clarified and strengthened</td>
<td>Chap 21</td>
</tr>
<tr>
<td>Fence the village with barbed wire</td>
<td>Agriculture area already fenced, and total housing areas can also</td>
<td></td>
</tr>
<tr>
<td>To have village drainage system</td>
<td>Will be included in plans</td>
<td></td>
</tr>
<tr>
<td>To have larger house area than pilot village’s house area</td>
<td>If land is available, but increase to another 30% only</td>
<td>Chap 19</td>
</tr>
<tr>
<td>House columns size 20cm x 20cm X 3.5m long</td>
<td>This is debatable, as 15 x 1.5 cm columns actually strong enough, However, 18 x 18 or 20 x 20 will be costed and considered</td>
<td></td>
</tr>
<tr>
<td>Kitchen 2.5 to 4m from the house, with air vent</td>
<td>Should be no possible, especially if on the ground</td>
<td></td>
</tr>
<tr>
<td>To have large bath room with toilet 3m x 3m</td>
<td>Agreed that toilet to be expanded to bathroom</td>
<td></td>
</tr>
<tr>
<td>Move to new location after houses and gardens developed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have taps to every house</td>
<td>Will be costed and considered</td>
<td></td>
</tr>
<tr>
<td>To have hand wheel tractor</td>
<td>Allocation now provided is one tractor to every 12 families</td>
<td></td>
</tr>
<tr>
<td>To have activities before relocation</td>
<td>Already in plans, but to be strengthened</td>
<td>Chap 25</td>
</tr>
<tr>
<td>To have fish, frog or eel pond</td>
<td>Trails already underway at Ban Nong Boua</td>
<td></td>
</tr>
<tr>
<td>To have priority in getting work with Project</td>
<td>Is being proposed to NTPCs Technical Division</td>
<td></td>
</tr>
<tr>
<td>To have sewing machine, and fund for small trading business</td>
<td>Will be incorporated in Community Development budget</td>
<td>Chap 28</td>
</tr>
</tbody>
</table>

Since these requests are village-specific or even household-specific and their feasibility depends to some extent on the actual village location, further modifications in the detailing of sites will be considered during the detailed planning directly before relocation and the actual implementation of the relocation and livelihood development after appraisal.
### Table 4-11: Summary Matrix of Concerns from 17 Nakai Plateau Villages, from 2004 village consultations process

<table>
<thead>
<tr>
<th>Concern</th>
<th>Already under the present policy and plan</th>
<th>Not under current Policy or Plan, but will be considered by NTPC and GOL</th>
<th>Not the mandate of the NT2 Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Village layout</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To clear UXO before moving to new village</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>To have a new school, clinic and village office</td>
<td>5</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>To plan good village layout, road passing every house &amp; around the village</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>To have village cemetery, Phi house or pagoda</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>To be allowed to select new resettlement village</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>To be issued land title and house ownership certificate</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>To have irrigation system</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>To redo the village layout</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>2. House issue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The house to be built with hardwood</td>
<td>10</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>To have veranda on the stairs with roof</td>
<td>7</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>The house to be 2.5 to 3m high</td>
<td>6</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Ground floor column concrete/top floor hardwood</td>
<td>6</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>To clear UXO before moving to the new house</td>
<td>5</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>To be allowed to build own house</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>To be allowed to design the house</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>To have wall with vertical and horizontal arrangement</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Water tank to be 5 to 8m from house, in backyard</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>To have open room without wall in between</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>To have house close to relatives’ houses</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>To lay floor timber tightly</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>To have house ownership certificate</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>To have twin roofed house</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Water tank to be near the house around 3m</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>To plane timber (all sides)</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not to build the house in the center of the land parcel</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Door to be in the center of the room</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Veranda platform to be attached to the house</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>To have traditional style house</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Replace the columns with repair costs allocated</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The numbers in the table represent the frequency or priority of the concern.
<table>
<thead>
<tr>
<th>Already under the present policy and plan</th>
<th>Not under current Policy or Plan, but will be considered by NTPC and GOL</th>
<th>Not the mandate of the NT2 Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Distance between house to be at least 20m</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

3 **Crop production issues**

- To have extension services, seeds, funds and training: 12
- To have a reliable market: 8
- To have an irrigation system: 6
- To have agricultural production tools: 5
- To clear UXO within the agricultural area: 5
- To have staff monitor daily the activities: 3
- To conduct a survey to improve soil quality: 3
- To compensate for trees planted in old village: 2
- To be allowed to survey own agricultural land: 2
- Wish to cultivate rice production (wet & dry season): 2
- To provide rice during the relocation period: 1
- The project to pay water and electricity fees: 1

4 **Livestock issues**

- To have extension services, breeds, funds & training: 12
- To have reliable market: 10
- To have village veterinary staff: 8
- To improve animal feed: 3
- To assist in making livestock house: 3
- To increase poultry raising: 2
- To be allowed to look for own livestock area: 2
- Wish to raise pigs: 2
- To keep benefits from animal raising for individuals: 1
- To have assistance in looking for animal grazing areas: 1

5 **Fishery issues**

- To be trained in fishing techniques / fish raising: 6
- To have funds, tool, fishing boat & refrigerator: 5
- To arrange study tour to Nam Ngum fishery: 4
- To have a fish market: 2
- Give priority for fishing in reservoir for resettlers: 2
- To establish reservoir fishery association: 2
- To establish fish reservation area: 1
### Chapter 4: Public Consultation, Participation and Disclosure

**November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1**

<table>
<thead>
<tr>
<th>Already under the present policy and plan</th>
<th>Not under current Policy or Plan, but will be considered by NTPC and GOL</th>
<th>Not the mandate of the NT2 Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>C</strong></td>
</tr>
<tr>
<td><strong>6 Forestry issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Train on NVFA responsibilities, &amp; related techniques</td>
<td>6 To be allowed to cut trees for building / repair the house</td>
<td>2</td>
</tr>
<tr>
<td>Every resettler to be member of NPVFA</td>
<td>4 To be allowed to export logs</td>
<td>2</td>
</tr>
<tr>
<td>To have tool &amp; vehicles to cut trees</td>
<td>2 To have furniture factory in each village</td>
<td>1</td>
</tr>
<tr>
<td>To be allowed to collect non timber forest product</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>To be allowed to plant, cut and sell trees</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>To compensate for forestry trees planted</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>To have fund for trees planting and forest patrol</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>7 Other Livelihood options</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To be trained in new occupations</td>
<td>13 To have priority in getting work with Project</td>
<td>6</td>
</tr>
<tr>
<td>To have fund and tool for small construction work</td>
<td>2 To have sewing machine / weaving machine</td>
<td>5</td>
</tr>
<tr>
<td>To compensate with other livelihood options</td>
<td>2 To have fund for small trading business</td>
<td>4</td>
</tr>
<tr>
<td>To establish local market</td>
<td>1 New staff to be recruited from the resettlers</td>
<td>1</td>
</tr>
<tr>
<td>To promote blacksmith in the village</td>
<td>1 To assist in organizing production groups</td>
<td>1</td>
</tr>
<tr>
<td><strong>8 Infrastructure issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have safe and clean water supply</td>
<td>6 To level up the village area</td>
<td>4 To install electricity and electrical tubes to each room</td>
</tr>
<tr>
<td>To have an irrigation system</td>
<td>4 To develop a village drainage system</td>
<td>3 To have water to top floor</td>
</tr>
<tr>
<td>To build a road to the village</td>
<td>3 To have a larger house area</td>
<td>2 To have additional village area for future generation</td>
</tr>
<tr>
<td>To fence around the village and the gardens</td>
<td>3 To have a compost factory in each village</td>
<td>1 To have home alcohol production factory</td>
</tr>
<tr>
<td>To have clinic center, school, pagoda &amp; village office</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>To develop a local market</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>To rebuild the Phi (spirit) house</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>To have an open air spot for house location</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

---

**Potential Relevance:**

- **A** indicates items already under the present policy and plan.
- **B** indicates items not under current policy or plan, but will be considered by NTPC and GOL.
- **C** indicates items not the mandate of the NT2 Project.

**Notes:**

- Forestry issues include:
  - Training on NVFA responsibilities and related techniques.
  - Permit to cut trees for building or repair the house.
  - Membership in the NPVFA.
  - Provision of tools and vehicles to cut trees.
  - Permits to collect non-timber forest products.
  - Compensation for forestry trees planted.
  - Funding for trees planting and forest patrol.

- Other Livelihood options include:
  - Training in new occupations.
  - Funding and tools for small construction work.
  - Compensating with other livelihood options.
  - Establishment of local markets.
  - Promotion of blacksmithing in the village.
  - Prioritization in getting work with the Project.
  - Establishment of small trading businesses.

- Infrastructure issues include:
  - Safe and clean water supply.
  - Irrigation systems.
  - Development of village infrastructure.
  - Establishment of local markets.
  - Rebuilding of Phi (spirit) houses.
  - Provision of open air spots for housing.

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**Additional Notes:**

- Each option is marked with a priority level from 1 (lowest) to 13 (highest).
- The table format facilitates easy comparison and prioritization.
- The relevance of each option is clearly indicated to align with policy goals and mandates.

---

**Acknowledgments:**

The detailed planning and coordination required for successful social development initiatives are acknowledged, highlighting the importance of comprehensive policy alignment and stakeholder engagement.

---

**References:**

- The National Social Development Plan is a critical document that guides the implementation of social initiatives in the Nam Theun 2 Project. It ensures that development projects are aligned with national policies and priorities, thereby maximizing impact and sustainability.

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**Conclusion:**

By categorizing options and prioritizing them, the document underscores the strategic importance of aligning social development activities with existing policies and mandates, ensuring that the Nam Theun 2 Project contributes effectively to the broader social and economic goals of the region.

---

**Appendix:**

- The table format is designed to be easily accessible and understandable, facilitating quick reference and decision-making.
- The detailed breakdown of options and priorities is essential for effective resource allocation and project management.

---

**Further Reading:**

- National Social Development Plans are essential for any large-scale development project to ensure equitable and sustainable outcomes.
- Understanding the policies and mandates is crucial for project success.

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**Disclaimer:**

The information provided is based on the details extracted from the document and should be cross-referenced with the original source for accuracy.
4.9.2 Influence of 2004 Consultations on Xe Bangfai Issues

As is the case with the Nakai Plateau consultations, the results reveal that villagers’ appear to have understood most of the impacts since their concerns and proposal deal with relevant issues, such as livelihood concerns, water supply, irrigation development, fish ponds, etc. However, the compensation and development planning of the Xe Bangfai region is not as well developed as for the plateau resettlement, and this rather more of the villager proposal fall into the category of 'not currently in the plans, but will be seriously considered. Nonetheless, proposals that are already covered under the Concession Agreement and existing plans in the SDP represent about 40% of the issues.

The Consultation results reveal that the issues in the Xe Bangfai are not as well defined, in terms of mitigation or compensation arrangements, as with the Plateau resettlement programme, due to the nature of the impacts, the mitigation framework and the wide range possible options available. The challenge is how to mitigate possible project impacts in a way that promotes development of livelihoods, infrastructure and other aspects. Thus key issues and proposals that may be considered if they are proven feasible area:

- assistance to clear additional land for agricultural development (livelihood),
- Need permanent and reliable irrigation system, (repairs and upgrades to current systems
- To have fund for livestock raising (low interest loan
- Need bridge over the village stream
- Need to have suspension bridge across the river
- to build dyke for flood protection (Increase height of road)
- provisions for work on the NT2 Project
- to have village revolving fund: and
- to reduce cost of electricity for irrigation pumping

Some issues which villages propose, but which are not the mandate of the NT2 Project and go beyond compensation for project impacts, include;

- establishing village schools,
- supplying toilets for village (health),
- skills training centres and community buildings,
- removal of rapids,
- expanding existing road systems and
- financial support (cost reductions and subsidies for production costs).

Since many villagers do not yet fully understand the limits of compensation offered by the Company, it will be necessary to explain further the extent of project impacts and the scope of compensation. This will then address the problem of too high expectations and subsequent problems that may arise during the implementation of the compensation plan.
### Table 4-12: Matrix of Concerns from Xe Bangfai Villages

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mahaxay District</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Livelihood issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To develop fish ponds</td>
<td>21</td>
<td>To clear new or additional paddy field</td>
</tr>
<tr>
<td>Need to be trained in fish raising</td>
<td>2</td>
<td>To have fund for livestock raising (low interest loan)</td>
</tr>
<tr>
<td>To compensate fishing loss with new occupation</td>
<td>1</td>
<td>Need skill training center in the village</td>
</tr>
<tr>
<td>Need agriculture skill training</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Need to have fish pond</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Education issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need village school</td>
</tr>
<tr>
<td><strong>Health issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To develop water well or underground well</td>
<td>10</td>
<td>Need village clinic</td>
</tr>
<tr>
<td>Need to have clean water supply</td>
<td>8</td>
<td>To provide toilet</td>
</tr>
<tr>
<td>To provide rain water jars</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Infrastructure issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To build new stairs (access) down to the river</td>
<td>10</td>
<td>Need bridge over the village stream</td>
</tr>
<tr>
<td>Make a permanent pump station, or move up the bank</td>
<td>9</td>
<td>Need to have suspension bridge across the river</td>
</tr>
<tr>
<td>To build bank protection along XBF</td>
<td>8</td>
<td>Need to have a bridge across Nam Phit</td>
</tr>
<tr>
<td>To compensate for loss of sand / gravel mining</td>
<td>1</td>
<td>To explode rapids (easier navigation, flood minimization)</td>
</tr>
<tr>
<td>To excavate straight after the Nam Phit confluence</td>
<td>1</td>
<td>Need pipe culverts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need village office</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need road to pasture land</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need 3 phase electricity for village business expansion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need telephone in the village</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To expand river size at Padek rapid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need to build a pagoda hall</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To have village sport stadium</td>
</tr>
<tr>
<td><strong>General issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wish to have jobs with the NT2 project</td>
<td>7</td>
<td>To compensate traditional festival benefits on the sand beach</td>
</tr>
<tr>
<td>Need a village loud speaker</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Need boat with engine for inter village communication</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Need skills training to work with NT2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
### Xe BangFai District

<table>
<thead>
<tr>
<th><strong>Livelihood issues</strong></th>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>To compensate with village fish pond (natural fisheries)</td>
<td>12</td>
<td>Need permanent and reliable irrigation system</td>
<td>15</td>
</tr>
<tr>
<td>Need to clear land for new garden</td>
<td>2</td>
<td>To compensate rice field (if affected)</td>
<td>2</td>
</tr>
<tr>
<td>Need to have fish casing</td>
<td>1</td>
<td>Need revolving fund (livestock, handicraft ..)</td>
<td>1</td>
</tr>
<tr>
<td>Need to clear and develop a dry season rice area</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Education issues</strong></th>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Need village school</td>
<td>1</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Health issues</strong></th>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to have clean water supply (deep well)</td>
<td>14</td>
<td>Need village Clinic</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Infrastructure issues</strong></th>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>To move the pump house up the bank of the river</td>
<td>1</td>
<td>Need sluice gate and bridge over stream</td>
<td>4</td>
</tr>
<tr>
<td>To build bank erosion protection at critical areas</td>
<td>1</td>
<td>The GOL to decrease electricity rate for irrigation pumping</td>
<td>2</td>
</tr>
</tbody>
</table>

| Need a bridge over Xe noy | 1 |
| Need a bridge over Tad kham stream | 1 |
| To compensate bank erosion even 5 years after running the power | 1 |
| Need a bridge over SayPhay stream | 1 |
| To have bridge over XBF river | 3 |
| To have village information center | 2 |

<table>
<thead>
<tr>
<th><strong>General issues</strong></th>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wish NT2 to start quickly</td>
<td>2</td>
<td>To have village information center</td>
<td>8</td>
</tr>
<tr>
<td>Need to work with NT2 (new job)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Chapter 4: Public Consultation, Participation and Disclosure

### November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1

<table>
<thead>
<tr>
<th>Already under the present Policy and Plan</th>
<th>Not under current Plan/Policy, but if technically feasible it will be considered by GoL and NTPC</th>
<th>Not the mandate of the NT2 Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>C</strong></td>
</tr>
</tbody>
</table>

### Xaybouly District

#### Livelihood issues
- To have village fish pond 26
- To have family fish pond 7
- To provide rice and crop seeds 4
- To raise fish in rice field / cage with fish fingerlings 3
- To be trained & have permanent extensionist 4

#### Education issues

<table>
<thead>
<tr>
<th>To have primary school 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>To have sport ground and accessories 4</td>
</tr>
</tbody>
</table>

#### Health issues

<table>
<thead>
<tr>
<th>To dig well or underground well 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>To have health center (with staff) 21</td>
</tr>
<tr>
<td>To have toilets 11</td>
</tr>
</tbody>
</table>

#### Infrastructure issues

<table>
<thead>
<tr>
<th>To have bamboo ferries to cross the river 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>To have flood dyke along the river 20</td>
</tr>
<tr>
<td>To have road between villages 19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To build bridge across XBF tributary (if flooded) 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>To build bank protection 20</td>
</tr>
<tr>
<td>To have irrigation system 16</td>
</tr>
<tr>
<td>To have permanent irrigation system 23</td>
</tr>
<tr>
<td>To have access track to the river bank 4</td>
</tr>
<tr>
<td>To install new pumps 6</td>
</tr>
<tr>
<td>To build bridge across XBF tributary (if flooded) 3</td>
</tr>
<tr>
<td>To fix the pumps if flooding 2</td>
</tr>
<tr>
<td>To install flap gates in all tributaries 2</td>
</tr>
<tr>
<td>To install electricity along the road to the village 1</td>
</tr>
<tr>
<td>To have drainage pipe to drain to the river 1</td>
</tr>
<tr>
<td>To have live saving boat during the flood 1</td>
</tr>
</tbody>
</table>

#### General issues

<table>
<thead>
<tr>
<th>To compensate appropriate to losses 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>The GOL to reduce electricity cost for irrigation pumping 5</td>
</tr>
<tr>
<td>The GOL to reduce fertiliser cost 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To build bank protection around pagoda 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>To have village development fund 5</td>
</tr>
<tr>
<td>The GOL to solve villagers' debts to the bank 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To conduct impact study soonest possible 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>To work with NT2 Project 2</td>
</tr>
<tr>
<td>The GOL to guarantee the rice price 1</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td><strong>Nong Bok District</strong></td>
</tr>
<tr>
<td>Livelihood issues</td>
</tr>
<tr>
<td>To have village fish pond</td>
</tr>
<tr>
<td>To have family fish pond</td>
</tr>
<tr>
<td>To have fund &amp; technician (fish production)</td>
</tr>
<tr>
<td>To have fish in rice field raising</td>
</tr>
<tr>
<td>To have rice and vegetable seeds</td>
</tr>
<tr>
<td>To have fish fingerlings</td>
</tr>
<tr>
<td>To be trained in fish raising</td>
</tr>
<tr>
<td>To raise fish in cage</td>
</tr>
<tr>
<td>Education issues</td>
</tr>
<tr>
<td>To have standard school</td>
</tr>
<tr>
<td>To have village kindergarten</td>
</tr>
<tr>
<td>Health issues</td>
</tr>
<tr>
<td>To build water well &amp; underground well</td>
</tr>
<tr>
<td>To have safe &amp; clean water supply</td>
</tr>
<tr>
<td>To have medicine during flood period</td>
</tr>
<tr>
<td>To have health personnel in the village</td>
</tr>
<tr>
<td>Infrastructure issues</td>
</tr>
<tr>
<td>To repair pumps when flooded</td>
</tr>
<tr>
<td>To build/repair flood gates along the river</td>
</tr>
<tr>
<td>To install new pumping station</td>
</tr>
<tr>
<td>To build step to river bank</td>
</tr>
<tr>
<td>To have bamboo ferry across XBF</td>
</tr>
<tr>
<td>To build village reservoir</td>
</tr>
<tr>
<td>To have water delivery pipes</td>
</tr>
<tr>
<td>General issues</td>
</tr>
<tr>
<td>To compensate according to loss</td>
</tr>
<tr>
<td>The Project to start soonest</td>
</tr>
<tr>
<td>To mitigate unclean water</td>
</tr>
<tr>
<td>To compensate impacted people first</td>
</tr>
<tr>
<td>To ensure same living conditions</td>
</tr>
<tr>
<td>NT2 staff to follow up support</td>
</tr>
</tbody>
</table>
4.10 REGIONAL AND NATIONAL PARTICIPATION

At the regional level PCPD has sought to provide a forum for the exchange of information and ideas between NTPC representatives, GoL, and regional stakeholders - that is community leaders, district agencies, provincial agencies, local businesses and contractors. Since May 1996, a continual dialogue has been maintained between NTPC and the regional stakeholders. These activities have been held in the district and provincial centers, as the target audiences require. These meetings and workshops represent the implementation of Phases 1 and 2, disseminating information as it becomes available from commissioned studies, and providing a forum for discussion of issues, and concerns raised as a result. In particular, the regional program provides an additional channel to the regional stakeholders and interested parties for communication of villagers' concerns that are identified at the local level to the regional stakeholders.

The program for these workshops continues as further issues are raised and results achieved in order to promote joint problem-solving and identification of complimentary regional development goals. Documentation of the proceedings, including invitation and participation lists, handouts and presentation materials, and comments and questions raised at the meetings has been made available to the participants.

Table 4-13: Summary of PCP Events at the Regional Level

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 7, 1996</td>
<td>Pilot Public Consultation meeting for NT2 involving Provincial, District and NTPC officials. Held at Ban Sop On</td>
</tr>
<tr>
<td>May 27, 1996</td>
<td>Meeting of representatives from NTPC and BPKP with the Deputy Governor of Khammouane Province to discuss resettlement planning. Held in Thakhek</td>
</tr>
<tr>
<td>September 19-20, 1996</td>
<td>Workshop on National and NT2 Resettlement Policy and Plans. Involved Provincial and District officials, LWU and RMU. Held in Thakhek</td>
</tr>
<tr>
<td>September 30-31, 1996</td>
<td>Meeting on regional planning for the Public Consultation and Participation Program. Involved WB representative, NTPC, STENO, National Front for Construction, LWU, and Provincial and District Officials. Held in Thakhek</td>
</tr>
<tr>
<td>December 6-7, 1996</td>
<td>Consultation with Provincial and District officials to obtain feedback on NTPC commissioned studies. NTPC, STENO. Held in Thakhek</td>
</tr>
<tr>
<td>March 12, 1997</td>
<td>Workshop on the Impact of Powerhouse Water Releases. Involved District officials and NTPC. Held in Mahaxai</td>
</tr>
<tr>
<td>March 20, 1997</td>
<td>Regional Workshop on the NT2 Project. Information briefing to Provincial and District officials. Held in Ban Gnommalat Neua</td>
</tr>
<tr>
<td>April 30, 1997</td>
<td>Regional Workshop on scoping and methodology for the RAP and EAMP. Held in Thakhek</td>
</tr>
<tr>
<td>June 5, 1997</td>
<td>Regional Workshop to discuss draft RAP, Meeting Hall, Ban Oudomsouk</td>
</tr>
<tr>
<td>June 23, 1997</td>
<td>Regional Workshop to discuss draft EAMP held at the Provincial Meeting Hall, Thakhek</td>
</tr>
<tr>
<td>Various workshops 2001-present (ongoing)</td>
<td>Regional Workshops on various issues related to resettlement, pilot village relocation, social development along the Xe Bangfai and other issues in Thakhek, Nakai, Mahaxai, Gnommalath and Laosao</td>
</tr>
</tbody>
</table>

National PCPD has involved an intensive program of information briefings and workshops based in Vientiane since May 1996. STEA (formally STENO) is responsible for overseeing the proceedings, as they proceed in accordance with WB Directives. The impetus for these events has largely focused on dissemination of information, and responses to three GOL commissioned studies (Study of Alternatives, Economic Analysis, and the Nakai-Nam Theun NBCA Management Plan), as well as the EAMP and the RAP. To further facilitate accessibility to information and public consultation, an NT2 Public Information Center was opened in the STEA office, Vientiane, in March of 1997. The Draft RAP of May 1997 was widely made available at the national level and was the subject of a 2-day consultation workshop in Vientiane in June 1997. Comments received on the Draft RAP are reflected in this report.
Recipients of the RAP and the EAMP reports issued by NTPC in 1998 will have opportunity to further comment and make suggestions, which will be considered prior to the final commitment to the programs contained in the reports. A national level workshop to consider the RAP and EAMP was held at the beginning of 1999 and the results were issued in a separate report, originally as an addendum to the RAP. Subsequently, these comments have been incorporated into this revised SDP.

### Table 4-14: Summary of PCP Events at the National Level

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 25, 1995</td>
<td>Meeting of NTPC, STENO, DoF (District, Provincial and National), CPAWN, BPKP, WCS, to discuss logging and catchment area management of the Nam Theun Catchment</td>
</tr>
<tr>
<td>June 6, 1996</td>
<td>NT2 Information Briefing at NTPC office, Vientiane by David Iverach 24 attendees: including GOL ministries agencies, international organizations, NGOs, diplomatic reps, local and international media</td>
</tr>
<tr>
<td>June 12, 1996</td>
<td>NT2 Information briefing at NTPC office, Vientiane by David Iverach, Eric Noël and Brian McIlree 29 attendees including GOL ministries agencies, international organizations, NGOs, diplomatic reps, local and international media</td>
</tr>
<tr>
<td>July 6, 1996</td>
<td>NT2 Information Briefing for senior Lao women officials, Lane Xang Hotel, Vientiane NTPC Presenters - David Iverach, Loy Chansavat and Sue Downie</td>
</tr>
<tr>
<td>August 20, 1996</td>
<td>Nam Theun Information Briefing and Public Relations Seminar for senior members of the Ministry of Foreign Affairs Maetrachit State Guest House, Vientiane</td>
</tr>
<tr>
<td>September 28, 1996</td>
<td>NT2 Information Briefing to members of the Vientiane Executives Evening, Novotel Hotel, Vientiane NTPC Presenters - Brian McIlree and Loy Chansavat</td>
</tr>
<tr>
<td>November 25, 1996</td>
<td>Internal Consultation Workshop on NT2 Project Area Socio-Economic and Cultural Survey by CARE International</td>
</tr>
<tr>
<td>November 29, 1996</td>
<td>NT2 Information Briefing for a group of Thai journalists brought to Lao PDR by EGAT, Lane Xang Hotel NTPC Presenter - Loy Chansavat</td>
</tr>
<tr>
<td>December 18, 1996</td>
<td>NT2 Information Briefing for Lao media representatives, Lane Xang Hotel, Vientiane NTPC Presenters - David Iverach and Loy Chansavat</td>
</tr>
<tr>
<td>December 27, 1996</td>
<td>NT2 Information Briefing for Lao Women’s Union, National Front for Construction and Lao Trade Union Movement NTPC Presenter - Loy Chansavat</td>
</tr>
<tr>
<td>January 16 -20, 1997</td>
<td>Field trip for Lao media to NT2 project area</td>
</tr>
<tr>
<td>January 27 - 29, 1997</td>
<td>First National Consultation and Participation Workshop on the three GOL-commissioned studies Jan. 30 - 1 Feb.1997 Field trip for international media and Lao Ambassador to U.S to NT2 project area</td>
</tr>
<tr>
<td>February 1, 1997</td>
<td>Public release of 7 NTPC-commissioned studies relating to social, environmental and technical aspects of the Project</td>
</tr>
<tr>
<td>February 19, 1997</td>
<td>Half Day Public Consultation Workshop on the NT2 Project Area Socio-Economic and Cultural Survey by CARE International NTP2 Public Information Center, STENO, Vientiane</td>
</tr>
<tr>
<td>February 19, 1997</td>
<td>Half Day Public Consultation Workshop on the NT2 Hydropower Project Forestry Report by Margules Groome Poyry</td>
</tr>
<tr>
<td>February 20, 1997</td>
<td>Half Day Public Consultation Workshop on the NT2 Hydropower Project Xe Bang Fai Hydrology Assessment by the Snowy Mountains Engineering Corporation (SMEC)</td>
</tr>
<tr>
<td>February 20, 1997</td>
<td>Half Day Public Consultation Workshop on the Potential Impacts of the NT2 Hydropower Project on the Fish and Aquatic Fauna of the Nam Theun and Xe Bang Fai basins by Dr Maurice Kottelat</td>
</tr>
<tr>
<td>March 21, 1997</td>
<td>Official opening of the NT2 Public Information Center, STENO</td>
</tr>
<tr>
<td>March 31, 1997</td>
<td>National Public Information Briefing on the NT2 Resettlement action Plan (RAP), Lane Xang Hotel, Vientiane</td>
</tr>
<tr>
<td>April 1, 1997</td>
<td>National Public Information Briefing on the NT2 Environmental Assessment and Management Plan (EAMP), Lane Xang Hotel, Vientiane</td>
</tr>
<tr>
<td>May 7, 1997</td>
<td>Public release of Draft Resettlement Action Plan for comments from all interested parties</td>
</tr>
</tbody>
</table>
## 4.11 International Level Participation

National workshops and information briefings have also addressed many of the needs of the international stakeholders. Participation of the international media in the national consultation program and the local representation of many international NGOs and international aid and development organizations has ensured the Project a place in the international arena. While the WB has no specific directives on the need for international participation, project representatives have attended or participated in numerous conferences addressing international issues related to the Project.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
</table>
| August 21, 1996 | Sustainable Development Seminar, Sydney  
NTPC Speaker - Dr David Iverach                             |
| September 1, 1996 | Frontiers of the Public-Private Interface in East Asian Infrastructure Conference - Jakarta, Indonesia. NTPC Speaker - Mr Guido Belgiorno-Nettis |
| September 30, 1996 | Developing the Mekong Subregion Conference - Melbourne, Australia  
NTPC Speaker - Dr David Iverach                             |
| March 11, 1997 | Information Briefing on NT2 Project. Embassy of Lao PDR, Washington D.C.  
NTPC Speakers - Dr David Iverach & Mr Thomas Philippe       |
| March 12, 1997 | Information Briefing on NT2 Project. Embassy of Lao PDR, Washington D.C.  
NTPC Speakers - Dr David Iverach & Mr Thomas Philippe       |
| March 13, 1997 | Information Briefing on NT2 Project. UN Plaza Hotel, New York  
NTPC Speakers - Dr David Iverach & Mr Thomas Philippe       |
| March 14, 1997 | Information Briefing on NT2 Project. Embassy of Lao PDR, Washington D.C.  
NTPC Speakers - Dr David Iverach & Mr Thomas Philippe       |
| April 10–11, 1997 | IUCN/WB Workshop on Environmental and Social Impacts of Large Dams - Gland, Switzerland  
NTPC Participants - Dr David Iverach and Mr Thomas Philippe|
| July 3, 2002 | Symposium on NT2 Window to the Future’ organized by the GOL linking the development of national policy and strategies and international donor community concerns and issues |
| August 2002 | Submission by GOL of a draft National Poverty Eradication Programme (NPEP) to the Donors on the occasion of the UNDP-led Donor Round Table Meeting (RTM) in Vientiane, presenting NT2 as a cornerstone of the country’s development |

### Table 4-15: Summary of PCP Events at the International Level
### Comments and Concerns Raised at 2004 International Workshops

The goal of the international workshops held in Bangkok, Tokyo, Paris and Washington DC (August 30-September 10, 2004) was to allow international stakeholders, including NGOs, governments and donors, to voice their opinions and concerns in relation to the current plans and to incorporate any relevant concerns. A number of presentations were made specifically on project impacts, mitigation, the consultation process and social aspects. Many questions, queries and opinions were expressed during the discussions on a wide range of issues. Below a table summarises concerns and issues raised that are related directly to aspects of the SDP. Full records from the international workshops are available in the moderators’ reports and news releases that have been produced for each of the workshops.

Table 4-16: Some SDP related Concerns and Issues raised during the 2004 International Workshops (non exhaustive).

<table>
<thead>
<tr>
<th>Concerns and Issues</th>
<th>Organisations</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many promises made by donors and government for the Pak Mun project in NE Thailand were not fulfilled and affected persons were not properly compensated.</td>
<td>Terra, Thailand and Representatives of Concerned Groups for Pak Mun.</td>
<td>The Concession Agreement is legally binding for the company and government with income targets. The consultation process is more transparent and involves all stakeholders. (NTPC) GoL invited representatives of Thai villagers affected by dam project in Thailand to attend the Vientiane Workshop and to visit the site. (GoL)</td>
</tr>
<tr>
<td>Fisheries impacts may have not been sufficiently studied in particular for the downstream Xe Bang Fai area and tributaries</td>
<td>Terra and Independent experts, Thailand</td>
<td>Comprehensive studies of the Project impacts on the fisheries have been undertaken. The Project is committed to properly compensate the affected people living along the affected portion of the Xe Bang Fai as well as those living in the hinterland, and who also rely on the Xe Bang Fai for fisheries.</td>
</tr>
<tr>
<td>Not enough time was given to review the documents prior to the workshop.</td>
<td>Friends of the Earth, Japan</td>
<td>The documentation is extensive but was posted on the web from May 2004 onwards and earlier versions have been available since 2002. Further opportunities for comments will be available during the appraisal process. (NTPC)</td>
</tr>
<tr>
<td>Logging on the Nakai Plateau has degraded the environment and affected the livelihoods of the people there from 1996 onwards. (Photographs of logging shown)</td>
<td>Mekong Watch, Japan</td>
<td>Logging was undertaken on the Plateau since the mid-1980s but was discontinued in 1999. The WB has had two full reviews and concluded that there has been no logging in the community forest areas or in the NBCA. (NTPC and WB)</td>
</tr>
<tr>
<td>Concerns about the livelihood model. 1) How will the resettlers be able to grow rice? 2) Where are the markets for cash crops? 3) Where are the grazing areas located?</td>
<td>Japan Volunteer Centre</td>
<td>1) Villagers have decided to stay on the Plateau and this has implications for their livelihoods. Resettlers are not encouraged to grow rice since it is not economic but the cultural importance of rice and food security are recognised. However, in the long-term, alternative crops on irrigated terrace will be developed. (NTPC) 2) Studies are being carried out at present in order to identify the best cash crops for commercial markets in the region. (NTPC) 3) Buffalo is a real issue for income and social status that Project is committed to manage by considering the following facts: Buffalo are to graze in the drawdown zone of the reservoir and in the resettlement zone. (NTPC)</td>
</tr>
<tr>
<td>Concerns about openness: 1) how is the monitoring going to be carried out in an open and transparent manner? 2) What is the NGO situation in Lao PDR?</td>
<td>Novetic, France</td>
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</tr>
</tbody>
</table>
3) What is the recourse if funding is inappropriately used or if there is mismanagement of the WMPA?

| Project cost unclear and there is inconsistency in the data as presented in the report: 1) Surface inundated unclear (650 or 450 ref. SESIA) 2) Number of people to resettled unclear (5,700 – 6,200) Number of people affected downstream unclear (40,000 – 150,000) 3) Livelihood options have not been sufficiently tested and this involves a high risk for the plan. 4) Request full disclosure of PPA and CA for public review. |
|----------------------------------|----------------------------------|
| Friend of the Earth, France       | 1) Maximum or full supply level (538 masl.) will be 450 sq km. and references to 650 sq km. will be removed. (NTPC) 2) The number of people to be resettled is estimated based on population surveys and projected numbers. The present estimate is 6,200 people, which includes Project Construction Lands. (NTPC) 3) Livelihood options have been tested and developed since 1996 in the demonstration farms and later in the pilot village. (NTPC) 4) Relevant sections of the CA are already public documents and included in the SDP as an appendix. A summary of the PPA is also presented. (NTPC) |

1) What the studies/reviews available on alternative fisheries for XBF and future fish stocks in the reservoir? 2) What is the relation to WCD?

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<tr>
<th>World Wildlife Fund (WWF), France</th>
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<tr>
<td>1) Reports (experiences) from Nam Ngum and Ubon Rattana reservoirs form the basis for the analysis of reservoir fisheries and is presented in Ch. 24. XBF fisheries is still being analysed and will be completed before appraisal. (NTFP) 2) The WCD Report does not have any legal status but is a document that has been considered useful by donors and planners for hydropower. Lessons learnt and recommendations have been considered in the revision of safeguard documents. (WB/ADB)</td>
</tr>
</tbody>
</table>

Concerns about the sustainability of the resettlement plan in relation to buffalo grazing and land use.

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<tr>
<th>Dutch NGO</th>
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<tr>
<td>Nam Ngum fisheries experience has shown that it is necessary to exclude outsiders in order to ensure benefits to the local people.</td>
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</table>

Monks should participate in the social development of the Nakai Plateau

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<tr>
<th>French Friends of Laos Association</th>
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<tbody>
<tr>
<td>Cultural and religious concerns will be taken into account during the resettlement and there are provisions for improving existing temples and establishing new structures at the new sites. (NTPC)</td>
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</table>

There are a number of important issues that were raised during the discussions at the workshops and the following aspects will be acted upon in order to enhance existing plans and initiatives:

- Organising of visits by concerned groups from Pak Mun in order to allow open discussions and interaction between affected persons from NE Thailand and NT2 project affected persons – the aim would be to allow the exchange of information and improve resettlement plans;
- Completion of studies on markets for agricultural produce and starting additional studies in order to obtain a better understanding of potential markets for cash crops in the region and ensure income for resettlers;
- Inconsistencies in the document regarding population figures, reservoir size and other aspects in the SDP, SEMFOP-1 and SESIA, will be made clear;
- Completion of analysis regarding fisheries for the NT2 reservoir and XBF downstream;
- Enactment of a decree which will clearly ensure that the land and forest resources of the resettlement area, and the fisheries resources in the reservoir, are for the exclusive use of the plateau resettlers;
- further investigation of the potential to raise buffaloes in the new resettlement areas, and drawdown zone

More generally, the workshops allowed the GoL and NTPC to better assess the general opinion on, and the level of preparedness of, the Project’s social plans. It also emphasized the need for continuous monitoring during the implementation period.
### 4.11.2 Integration of Comments raised by International Reviews

The following Table present some of the most important aspects raised by a number of reviews by international bodies and consultants. These include issues raised during the annual missions by the Panel of Experts (POE). A full presentation of comments raised by the POE and the International Advisory Groups is given in Appendix E in Part 1 of the SDP.

**Table 4-17: Project Responses to IAG, POE and Other International Reviews of Social and Resettlement Documents and Plans.**

<table>
<thead>
<tr>
<th>Issues Raised</th>
<th>Integration into Project Development</th>
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<tbody>
<tr>
<td><strong>International Advisory Group</strong></td>
<td></td>
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<tr>
<td>Resettlement activities should commence ASAP (possibly under a Pilot Village), and not be further delayed by overall Project delays</td>
<td>NTPC has committed to proceeding with the resettlement of a Pilot Resettlement Village.</td>
</tr>
<tr>
<td><strong>Panel of Experts visit 2</strong></td>
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<tr>
<td>Incentives should be developed for out-migration of NBCA population to stem pressures of population growth</td>
<td>GOL has decided not to encourage out-migration as such, but rather a combined program of (a) in-situ livelihood development program developed to help reach a sustainable level of development in the NBCA without threatening the biodiversity of the area, (b) discouragement of in-migration to resettlement areas that could threaten the initial success of the resettlement program, and (c) develop family planning to manage population growth.</td>
</tr>
<tr>
<td>Bussing of labor for Dam Construction</td>
<td>EAMP (Chapter 15) addresses potential environmental and social impacts of construction workers and spontaneous settlement population by adopting this approach and thus relocating the work camps to less sensitive areas.</td>
</tr>
<tr>
<td>More socio-economic surveys and pioneering planning for the middle and lower Xe Bang Fai</td>
<td>The Concession Agreement outlines plans to conduct baseline and subsequent socio-economic and health surveys of villages located along the Xe Bang Fai. The SDP details plans for these socio-economic surveys and for other studies of specific issues relating to the NT2 Project and the XE BANGFAI.</td>
</tr>
<tr>
<td><strong>Panel of Experts visit 3</strong></td>
<td></td>
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<tr>
<td>RAP can be used as an incentive for population movement out of the NBCA</td>
<td>NTPC recognizes the potential for Nakai Plateau resettlement experience to act as an incentive for NBCA communities to relocate there, however this will only be considered once the Plateau Resettlers are established and the RAP has proved successful.</td>
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<tr>
<td><strong>Panel of Experts visit 4</strong></td>
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<tr>
<td>Social and Environmental expertise required for the Project be identified and developed without delay</td>
<td>NTPC has strengthened its capability on and expertise in terms of social and environmental planning and Management. The Concession Agreement allocates considerable funding for the hiring of TA and the development of local expertises, as part of the RMU and EMU.</td>
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<tr>
<td>Monitoring program of current fish migrations and fishing activities be initiated by the 1999-2000 dry season at the latest</td>
<td>A Xe Bang Fai Fisheries CPUE is ongoing, and more are planned.</td>
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<tr>
<td><strong>World Bank PCPD Review by Barbara Franklin (1997)</strong></td>
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<tr>
<td>A Senior Full-Time Social Scientist is required for PCPD Planning and Management</td>
<td>A Social Specialist has been involved in PCPD Team training and developing a PCPD plan, and will continue, with a full time appointment for the Phase 2 consultation process, and the relocation period.</td>
</tr>
<tr>
<td>Village facilitators need to be identified and smaller group discussions pursued for better representation of stakeholders</td>
<td>In the Plateau villages, Village Resettlement Committees have been formed to coordinate village activities and continue village consideration and planning for resettlement for integration into the RAP. Focus group discussions and individual interviews with villagers are ongoing in order to identify further village facilitators. PCPD techniques incorporate small group discussions to ensure representation of all gender, ethnic and generational groups</td>
</tr>
<tr>
<td>PCPD Teams should be ethnic and gender representative of the stakeholder populations</td>
<td>PCPD Teams have always comprised ethnic - Brou, Lao Kaleung, Phu Thai and sometimes Vietie - and women groups.</td>
</tr>
<tr>
<td>Messages and materials need to be developed more specifically for target audiences</td>
<td>Extensive planning has produced materials that are targeted for the various stakeholders, in particular posters, pictures, diagrams, drawings, videos and other means to take account of the literacy levels of the populations.</td>
</tr>
<tr>
<td>PCPD Teams require further training</td>
<td>In advance of the 1998 PCPD program, the Senior Social Scientist gave training in participation techniques in 1997 and 1998. Further training is proposed for the RMO and RMU teams, and others involved in the resettlement process.</td>
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Chapter 4: Public Consultation, Participation and Disclosure

4.12 DISCLOSURE (PHASE 3) OF THE TOTAL CONSULTATION PROCESS

4.12.1 Main stages of Disclosure

The continued process of consultation is key to the finalisation of the social and resettlement safeguards documents and implementation plans. At various key stages in this development, documents have been released to the general public for comments and translations have been made into Lao and Thai. The following sections of what has now become the SDP were released to the public or posted on the NTPC Internet site prior to 2004. This includes several earlier versions of the SDP (then called the Draft Resettlement Action Plan) released in May 1997 and subsequently at the beginning of 1999 (1998 version of the RAP), was available as a hard copy and via electronic mail. Other reports on local consultations and reviews and evaluations related to various social aspects of the project.

4.12.2 Disclosure prior to Appraisal

For the period prior to Appraisal, consultations will be ongoing regarding detailed project planning. This will occur at three levels and at each level the appropriate documents will be made public.

Local level: The consultation at the local level will primarily be conducted by recurrent, interactive workshops and presentations, backed up by the provision of translated summaries of sections of the RAP and EMDP in Lao, and the placement of posters illustrating expected project impacts. The main groups of PAPs to be consulted are (i) plateau resettlers, (ii) villagers along the Xe Bangfai, and (iii) villagers with assets under Project Lands.

National: This includes consultation with national NGOs and mass organizations; GoL authorities involved with the implementation activities and other GoL stakeholders, as well as the general public. This has been done primarily by workshops and presentations with translations of summaries of the available documents. For the GoL organizations involved with implementation (including STEA who reviews and clears the documents for GoL) there has been interactive reviews and training processes, along with the distribution of operational manuals for Project implementation based on the Concession Agreement and Safeguards documents.

International: This has included consultation with donors, international NGOs, and Thai stakeholders. It involved several public meetings (in Vientiane, Bangkok, Tokyo, Paris, and Washington). Prior to these events, the English form of the advanced draft version of supporting safeguards documents and summaries/extracts of major contracts were made available, along with a Thai and Japanese versions of the summary safeguard document (SESIA), on the Project website www.namtheun2.com. Updated documents or sections of documents will continue to be posted on this website, as they become available.

4.12.3 Disclosure at Appraisal

In order to meet the requirements of the disclosure policy, the documents, revised based on the consultations above, will be made available to all project stakeholders before appraisal and a full 120 days before board of directors consideration for approval (to meet the US ED requirement). At this time the GoL implementers (including STEA who will review and clear the document) will have a full translation of the revised document. The disclosure for the local project affected people will be done through an information and outreach program, and making the Lao documents available to them. The remainder of the groups will be provided a full revised version of the document in the appropriate language.

4.12.4 Revision and final Disclosure for implementation

After appraisal and board approval, any required revisions will be made to project planning documents, and then these documents will be made available to the various stakeholders. Of particular importance is the GoL implementers and the project affected people who will be given a full Lao translation. The project affected people will also have the services of an information and outreach program available to them. The remainder of the groups will be provided a revised full version of the document in the appropriate language.
### Table 4-18: Indicative and Summary Schedule of Consultations Leading to Disclosure

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<td>Project Lands Consultations (on-going)</td>
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4.12.5 Public Information Dissemination to the General Public

Table 4-19 presents the main stakeholder groups, or audiences, who will participate in the final consultation and disclosure process for social and resettlement documents and plans, ranging from local PAPs, GoL stakeholders and implementers, national organisations, the general public and the international audience. This table also indicates the general type of consultation and disclosure to be undertaken with each audience, ranging from information and outreach programs with local PAPs to the provision of full English, and full or summary Lao translations of all relevant documents.

Past Activities (mostly since June 2002 and conducted jointly by GOL and NTPC) were aimed at developing general Public awareness of the Project and its role to alleviate poverty in Laos. A major Symposium was organized in Vientiane on July 3, 2002 by GOL, numerous site visits were conducted for diplomats, media and NGO communities, the Project website (www.namtheun2.com) was updated, GOL website was created, and various communications supports (brochures, leaflets and news releases on various topics) were produced and widely distributed. Such public awareness strategy will continue with the following activities:

4.12.6 Information Centres

Information Centres will be established in defined location of the various project affected areas as well as in Vientiane to promote information exchange from the earliest stages of the project implementation. A first Information Centre and Forum will be established in NTPC’s Vientiane office in early 2005, displaying safeguards documents in English and summaries in Lao language, a Project small-scale model, and a video.

Two other Information Centres including discussion Forums will be established in Thakhek, and Nakai. To assist in the implementation of such information centres and forum in these areas more directly affected by the project (in particular Nakai Plateau), the Lao Women’s Union (LWU) will play a decisive organizational role as it is probably the key grass-roots level information network immediately available in the Lao PDR. Their active involvement in the establishment and day-to-day functioning of these centres will be aiding information flow between villagers and the project authorities.

With information flowing to the Project managers and their consultants, more timely management of emerging issues will then be effected. Feedback from Project to communities will also be facilitated through the LWU and the provincial authorities. Other than the LWU, key provincial and district officials and key villagers / local organizations will be identified to serve as the junction between the Project and the PAP, through Information Centres and Forums. These permanent Centres and Forums will be established just after the completion of village-by-village Disclosure and Consultations.

4.12.7 Mass media

A permanent and regularly updated diffusion of messages is made through the Project website (including a newsletter, the photo description of site works progress, news releases, etc.) so that any new comer / journalist can actually gain appropriate knowledge on the Project in a record time. Key messages are diffused to the media via NTPC’s designated spokespersons through press, radio or TV interviews and reports. In addition, several key media have been identified and will be regularly updated with the Project progress. These are:

- International agencies: AFP (Hanoi office), Reuters (Bangkok Office)
- Thai press: Bangkok Post, The Nation (Thai and English editions)
- Lao agencies and press: KPL, Vientiane Times
- Radio: Radio Free Asia, Voice of America
- TV: BBC, TV5, NHK
- Others
Table 4-19: Summary of Disclosure as Relates to the Different Stakeholders

<table>
<thead>
<tr>
<th>Audience</th>
<th>Project</th>
<th>GoL Stakeholders</th>
<th>GoL Implementers</th>
<th>National Public, NGOs and mass organizations</th>
<th>International Stakeholders (donors, NGOs)</th>
<th>Thai Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Document</strong></td>
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<tr>
<td>SDP</td>
<td></td>
<td>Full English version; Translations of summary; workshops; presentations.</td>
<td>Full English version; Translations of Summaries; workshops; training.</td>
<td>Full English version; Translations of summaries; public meetings; workshops; presentations.</td>
<td>Public meetings; Full English version.</td>
<td>Full English version; Thai summary.</td>
</tr>
<tr>
<td>Baseline Studies (PCRS, Fisheries etc)</td>
<td>NA</td>
<td>Full English version; Translations of summary; workshops; presentations.</td>
<td>Full English version; Translations of Summaries; workshops; training.</td>
<td>Full English version; Translations of summaries; public meetings; workshops; presentations.</td>
<td>Public meetings; Full English version.</td>
<td>Full English version; Thai summary.</td>
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<tr>
<td><strong>Phase 3: Disclosure by Appraisal</strong></td>
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<tr>
<td>SDP</td>
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<td>Lao summaries</td>
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<td>Full English version</td>
<td>Full English version; Thai summary</td>
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<tr>
<td>Baseline Studies (PCRS, Fisheries etc)</td>
<td>Lao summaries</td>
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<td><strong>Final revision For Implementation</strong></td>
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<td>SDP</td>
<td></td>
<td>Lao translations or appropriate chapters and/or sections</td>
<td>Lao translations or appropriate chapters and/or sections</td>
<td>Lao translations or appropriate chapters and/or sections</td>
<td>Full English version</td>
<td>Full English version; Thai summary</td>
</tr>
<tr>
<td>Baseline Studies (PCRS, Fisheries etc)</td>
<td>NA</td>
<td>Lao summaries</td>
<td>Lao summaries</td>
<td>Lao summaries</td>
<td>Full English version</td>
<td>Full English version; Thai summary</td>
</tr>
</tbody>
</table>
4.12.8 Project video documentaries

Using digital technology and sophisticated editing and simulation tools, a 20 minutes comprehensive overview (including technical, social, environmental aspects) of the project has been prepared in January 2004. It has been used as a basic support for project general presentation in the project Information Centres. A 5 minute video summary and separate technical simulations has also been produced in formats easily up loadable for the Project website.

Video documentary of the 2004 local consultations on the Nakai Plateau and along the Xe Bang Fai have also been prepared, picturing some various sessions of discussion among villagers on a random basis, and describing the overall process and principles used for the transparent, balanced and meaningful consultations with PAPs.

4.12.9 Translation

Because of the international, multi-stakeholder and somewhat complex nature of the project, all documents have been originally drafted, reviewed and revised in English. However, while key GoL counterpart to the project developers can work in and read English, many GoL staff, and certainly most, if not all, local villagers cannot. Thus, translation of all relevant extracts from the project safeguard and social and resettlement documents, a full translation of Schedule 4.1 of the Concession Agreement, and the production of adapted communications materials such as power point presentations, manuals for local facilitators and posters have been crucial features if the consultation and disclosure process.

4.13 Institutional Arrangements for Local Level PCPD

The GoL and NTPC have, and will continue to work together for the public consultations and disclosure process, with the NTPC providing technical and managerial support as required. The World Bank and ADB also assist by the provision of loans and assistance to engage experts in the fields of participatory consultation.

GOL

The earlier Phase 1 consultations (1997-98) were led by the GoL’s RMU with the assistance and input from NTPC Consultants. On the downstream area, and due to the large number of villages, the GoL formed teams to visit each village for consultations. These teams were composed of staff from each district’s Resettlement Working Groups, and staff engaged especially for the consultation process. They were given training in PRA by NTPC hired experts. On the plateau, the RMU took the lead role, with some support from Nakai DRWG staff. NTPC provided the short-term services of a social scientist.

The 2nd Phase of consultations in mid-2004 have been led again by the GoL who has now formed its own Public Consultations team, with independent international (regional) consultants engaged to provide training and facilitation. This unit is managing the local level consultation and disclosure process, and assist the District level staff to form teams to working in villages. As required, the District units will also ensure the technical assistance in areas relevant to the PAPs, such as rural livelihoods, health care and community development. Thus, the composition of teams will be flexible, combining the experience and knowledge of those who have already been involved in PCPD with new expertise.

Village facilitator teams

However, this 2nd Phase saw the main institutional focus shift from NTPC and GOL to the village. Village consultation teams have been formed and these not only conducted the intial round of Phase 2 consultations, but will continue to the be the facilitators for the ongoing consultation both on the plateau and along the Xe Bangfai.

One conclusion of the earlier consultation experiences was the need for a representative body at the village level that would work with district government organisations and line agencies, RMU and various experts and advisors at the local level. It was decided by project planners that the composition of this group should reflect the various interest groups at the local level and thus aim to ensure that all stakeholders would be represented. One important task of the First Round of the 2004 Consultations was
to obtain agreement at each village for the selection of this body of 10 persons. The general composition consists of the following elements and balances:

- Village Leaders and traditional leaders (formal and informal leadership balance)
- Male and female members (gender balance)
- Elderly, middle-aged (able-bodied adults) and youth members (age balance)
- Members of all ethnic groups (ethnic/language balance)
- Members with good communication skills and illiterates (education balance)

Groups of village facilitators were selected and then immediately trained to perform their first task, that is consultations about the NT2 project following one-day of training, and under the supervision of Consultation Experts in both Nakai Plateau and Xe Bangfai villages.

**NTPC**

The NTPC has also formed a team of national and regional level consultations officers, to liaise with, support, and where necessary provide training and actual assistance in the field, to the GoL PCP teams. A crucial role of NTPC’s RO is to coordinate and ensure that GoLs PCD Unit is provided with, and understands, the full range of information relating to the NT2 project, especially resettlement and compensation aspects as relevant to the PAPs in the various zones of the project. Due to the relatively complex nature of the NT2 project, achieving a full understanding of the project, its impacts, and the resettlement and compensation strategies, is a challenge.

In addition, the NTPCs PCD team will be primarily responsible - in close cooperation with the RMU - for the production of posters, maps and photos and translation, facilitation manuals and any other consultation materials and tools. The NTPC PCD staff will also assist the field teams to develop strategies and working methodologies.

Not withstanding the above general institutional arrangement, the actual responsibilities for, and content of, any particular consultation and disclosure depends on the timing and the target audience. Table 4-20 below outlines the institutional arrangements for the previous conduct of the Phase 1 consultation process, and Table 4-21 outlines the proposed sharing of institutional responsibilities for the management and implementation of the ongoing (Phase 2) consultation and disclosure (phase 3) process.

**Table 4-20: Institutional Arrangements for Phase 1 PCDP at Each Level**

<table>
<thead>
<tr>
<th>Level</th>
<th>Institutional Arrangements</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>Resettlement Committee (RC) headed by the Director of Rural Development Committee at the State Planning Committee (under the Vice-PM) Composition: Governor of Khammouane Province is the Chairman, other appointed members.</td>
<td>Responsible for policy and legal framework, ensuring the RAP is carried out according to schedule and budget, and co-ordination of GoL agencies</td>
</tr>
<tr>
<td>National</td>
<td>STEA</td>
<td>Responsible for overseeing policy and regulations at the national level and for coordinating monitoring</td>
</tr>
<tr>
<td>National</td>
<td>LNF</td>
<td>Responsible for overseeing all issues related to ethnic minorities</td>
</tr>
<tr>
<td>National</td>
<td>NT2 Office and NTPC Composed of PPCP facilitators and international and national technical experts</td>
<td>Responsible for information dissemination, coordination of consultations, reporting and quality control</td>
</tr>
<tr>
<td>National and Local</td>
<td>Resettlement Management Unit (RMU) Composed of National, Provincial and District representatives Appointed positions by GOL.</td>
<td>Responsible for day to day management of resettlement activities in all project areas</td>
</tr>
<tr>
<td>District</td>
<td>District Resettlement Working Groups (DRWGs) Composed of relevant district personnel and technical support staff</td>
<td>Responsible for linkages between resettlement activities and village organizations Workshops and training ongoing by NTPC and</td>
</tr>
</tbody>
</table>
### Members seconded from GOL representatives at the District Level
- Lao Women’s Union (LWU) Representatives at the Provincial and District levels appointed by GOL
- Local LWU members elected by villagers
- LWU represented in RMU, DRWGs and VRCs

### International and national consultants
- Responsible for linkages between resettlement activities and women’s concerns
- Workshops and training ongoing by NTPC and international and national consultants

### Village Resettlement Committees (VRCs)
- Composed of elected members of the village GoL

### Responsible for linkages between resettlement activities and women’s concerns
- Workshops and training ongoing by NTPC and international and national consultants

### Local Village Resettlement Committees (VRCs)
- Composed of elected members of the village GoL

### Responsible for carrying out resettlement activities such as village layout, organizing the actual relocation and monitoring the progress of the livelihood scenarios
- Workshops and training ongoing by NTPC and international and national consultants

### Local Village Facilitators
- Composed of a balance of leadership, gender, ethnic groups, age and skills/education

### Responsible for carrying out consultations and representing a diversity of interests at the local level, as well as acting as intermediaries between formal leadership and organisations and the affected people.

### Table 4-21: Indicative Staffing Plans for Phase 2 Consultation Activities

<table>
<thead>
<tr>
<th>NTPC – 4 staff</th>
<th>RMU – 3 staff</th>
<th>District WGs – 14 permanent staff (teams formed as required, from District agency staff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consultations Manager</td>
<td>PAP Consultations Manager</td>
<td>Nakai PCD team: 2 people (permanent)</td>
</tr>
<tr>
<td>2. Plateau Consultations Assistant</td>
<td>Materials Development Officer</td>
<td>Gnommalat PCD team: 2 people (permanent)</td>
</tr>
<tr>
<td>3. Xe Bangfai Consultations Assistant</td>
<td>Consultations Officer</td>
<td>Mahaxai PCD team: 2 people (permanent)</td>
</tr>
<tr>
<td>4. Project Lands Consultations Assistant</td>
<td>TA – Consultations Expert(s) supported by ADB and WB</td>
<td>Xe Bangfai PCD team: 2 persons (permanent)</td>
</tr>
<tr>
<td>5. TA – Ethnic Consultation and Development</td>
<td>Nong Bok PCD team: 2 persons (permanent)</td>
<td>Xaibouly PCD team: 2 persons (permanent)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Khamkeut PCD team: 2 persons (permanent)</td>
</tr>
</tbody>
</table>
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Annex 4-1: List of Documents of the 1st Phase of PCPD, Available in the NTPC Library

**Public Meetings & Reports - at National level**

1. NTEC-commissioned studies, NT2 Public Info Centre, STENO, Feb 19-20, 1997
2. The RAP and EAMP, Lane Xang Hotel, Vientiane, March 31 - April 1, 1997
4. Meeting to review the Draft EAMP, June 18-19, 1997
5. Meeting to review the Draft RAP, June 2-3, 1997
8. Information briefing on Proposed NT2 Project by STENO at the PIC, Vientiane, March 28, 1997

**Public Meetings & Reports - Regional**

1. The RAP for the NT2 Project, Nakai District, Khammouane, 5 June 1997
2. EAMP for NT2, Thakhek, 23 June 1997 (Lao language)
3. Information briefing on NT2 Hydroelectric Project, Gnommalath District Hall, Khammouane, 20 March 1997

**Village Consultation & Participation**

2. Team 1, Gnommalath District, Khammouane Province, 22-28 May 1997, then 25-30 April 1997
4. Team 1, Thakhek & Xe Bang Fai District (Khammouane), Xayabouli District, Savannakhet, 5-16 May 1997
5. Team 2, Gnommalath & Mahaxai Districts, Khammouane Province, 25-30 April, the 22-28 May, 1997
7. Team 2, NongBok & Xe BangFai District (Khammouane), Xayabouli District, Savannakhet, 5-16 May 1997
8. Team 3, Gnommalath & Mahaxai Districts, Khammouane Province, 22-18 May, 1997
10. Team 3, NongBok & Xe BangFai District (Khammouane), Xayabouli District, Savannakhet, 5-16 May 1997
11. Team 4, Gnommalath & Mahaxai Districts, Khammouane Province, 23-28 May, then 25-30 April, 1997
13. Team 4, NongBok & Xe BangFai District (Khammouane), Xayabouli District, Savannakhet, 5-16 May 1997
14. Team 5, Mahaxai & Nakai Districts, Khammouane Province, 6-9 April, 1997
15. Team 5, Mahaxai District, Khammouane Province, 22-28 May then 25-30 April 1997
17. ‘jang paem buaxabalen lae khaobouam klong mouvayn ladub Thongthin’, Gnommalat, 20 March 1997
18. Consultation with villages in the area of the Transmission Line Corridor, Savannakhet, 10-13 February, 1997
19. Public Consultation and Participation on the DC & Transmission Line in Gnommalath, 25-30 April, 1997
22. Public Consultation, Participation on the Nakai Plateau (Forms & Photos #2), Stephen Sparkes, July 1998
23 Village Consultation & Participation on Resettlement and Livelihood Issues, Nakai Plateau Team 1 + Team 2, Nakai Neua, Nakai Tai & visited Theun Douane, Nakai District, 1-8 June, 1997

24 Public Disclosure and Consultations on Xe Bangfai 1998

Other Reports
1 Comments & Questions received from Public Consultation & Participation Events related to NT2, 1/06/97
2 Development of Stakeholder Relationships - an Overview, with particular reference to role of public consultation in Laos, July 1997
3 Review of Local Public Consultations for NT2, Draft, Barbara Franklin, July 1997
4 Review of Local Public Consultations for NT2, Final, Barbara Franklin, September 1997
5 Training in Participatory Rural Appraisal - NTEC, Laos - Project Completion Report Manidis Roberts International, 28 March - 11 April, 1997

********** * * * **********
CHAPTER 5
HEALTH IMPACT ASSESSMENT AND
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<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ACFL</td>
<td>Amitié-Coopération Franco-Laotienne</td>
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>ARI</td>
<td>Acute Respiratory infection</td>
</tr>
<tr>
<td>AS</td>
<td>Activity Sheet</td>
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<tr>
<td>BCC</td>
<td>Behavioural Change Communication</td>
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<td>BK</td>
<td>Koch Bacillus</td>
</tr>
<tr>
<td>BOL</td>
<td>Borikhamxay</td>
</tr>
<tr>
<td>BS</td>
<td>Blood Slide</td>
</tr>
<tr>
<td>BTC</td>
<td>Belgian Technical Cooperation</td>
</tr>
<tr>
<td>CIEC</td>
<td>Centre for Information, Education and Communication</td>
</tr>
<tr>
<td>CLE</td>
<td>Centre for Laboratory and Epidemiology</td>
</tr>
<tr>
<td>CMCH</td>
<td>Centre for Mother and Child Health</td>
</tr>
<tr>
<td>CMPE</td>
<td>Centre for Malaria, Parasitology and Entomology</td>
</tr>
<tr>
<td>CSWs</td>
<td>Commercial Sex Workers</td>
</tr>
<tr>
<td>DCCA</td>
<td>District Committee for the Control of AIDS</td>
</tr>
<tr>
<td>DF</td>
<td>Damiaan Foundation</td>
</tr>
<tr>
<td>DH</td>
<td>District Hospital</td>
</tr>
<tr>
<td>DHF</td>
<td>Dengue Hemorrhagic Fever</td>
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<td>DHHHP</td>
<td>Department of Hygiene and Health Promotion</td>
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<tr>
<td>DHO</td>
<td>District Health Office</td>
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<tr>
<td>DOTS</td>
<td>Directly Observed Therapy Short-term</td>
</tr>
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<td>DPT</td>
<td>Diphtheria-Pertussis-Tetanus</td>
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<tr>
<td>DPT-Hep B</td>
<td>Vaccine against Diphtheria, Pertussis, Tetanus, and Hepatitis B</td>
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<td>DRF</td>
<td>Drug Revolving Fund</td>
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<td>Demographic surveillance system</td>
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<td>EAMP</td>
<td>Environmental Assessment and Management Plan</td>
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<td>Environmental Management Unit</td>
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<td>Electricité du Laos</td>
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<td>Electricity Generating Authority of Thailand</td>
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<td>EMDP</td>
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<td>Electro Magnetic Field</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GI</td>
<td>Gastrointestinal</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information Systems</td>
</tr>
<tr>
<td>GOL</td>
<td>Government of Lao</td>
</tr>
<tr>
<td>HACCP</td>
<td>Hazard Analysis Critical Control Point</td>
</tr>
<tr>
<td>HC</td>
<td>Health Centre</td>
</tr>
<tr>
<td>HCC</td>
<td>Head Construction Contractor</td>
</tr>
<tr>
<td>HI</td>
<td>Handicap International</td>
</tr>
<tr>
<td>HIA</td>
<td>Health Impact Assessment</td>
</tr>
<tr>
<td>HIAT</td>
<td>Health Impact Assessment Table</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health Management Information System</td>
</tr>
<tr>
<td>HP</td>
<td>Health Program</td>
</tr>
<tr>
<td>HSIP</td>
<td>Health Services Improvement Project</td>
</tr>
<tr>
<td>HSS</td>
<td>HIV Sentinel Surveillance</td>
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</table>
Chapter 5: Health Impact Assessment and Public Health Action Plan

HSU  Health Statistics Unit
IBN  Impregnated Bed Nets
ICHIC Integrated Community Health Centre
IDA International Development Association
IEC Information-Education-Communication
IFMT Institut de la Francophonie pour la Médecine Tropicale
IMPE Institute of Malaria, Parasitology and Entomology Centre
INDEPTH International network for the continuous demographic evaluation of population and their health in developing countries
INGO International NGO
Inter-DH Inter-District Hospital
IPM Integrated Pest Management
ITNs Insecticide-Treated Bed Nets
JE Japanese encephalitis
JICA Japan International Cooperation Agency
KAH Korea Association of Health Promotion
KAP Knowledge, Attitudes, Practice
KAPB Knowledge, Attitudes, Practice and Belief
KHA Khammouane
Lao PDR Lao People’s Democratic Republic
LDTDs Long Distance Truck Drivers
LLIBN Long-Lasting Impregnated Bed Nets
MA Medical Assistant
MCHC Centre for Mother and Child Health
MDG Millennium Development Goals
MOA Ministry of Agriculture
MOE Ministry of Education
MOH Ministry of Health
MSF Médecins sans Frontières
MSV Measles Vaccine
MT CPC Ministry of Transport, Construction, Post and Communication
NCCA National Committee for the Control of AIDS
NGO Nongovernmental Organization
NIPH National Institute of Public Health
NSC National Statistics Centre
NT2 Nam Theun 2
NTC National Tuberculosis Centre
NTPC Nam Theun 2 Power Company
NTPC/HO Nam Theun 2 Power Company Health Office
OPV Oral Poliomyelitis Vaccine
PCCA Provincial Committee for the Control of AIDS
PH Provincial Hospital
PHA Public Health Action
PHAP Public Health Action Plan
PHC Primary Health Care
PHO Provincial Health Office
PIA Potential Impact Areas of Concern
PM Particulate Matter
PMP Pest Management Plan
PMU Program Management Unit
RAP Resettlement Action Plan
RDF Revolving Drug Fund
RMU Resettlement Management Unit
RSA Resettlement Area
SDP Social Development Plan
S&M Surveillance and Monitoring
S&MS Surveillance and Monitoring Survey
SMWs Seasonal Migrant Workers
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SPPS</td>
<td>Sexually Transmitted Infection Periodic Prevalence Survey</td>
</tr>
<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>SSO</td>
<td>Social Security Organisation</td>
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<tr>
<td>STD</td>
<td>Sexual Transmitted disease</td>
</tr>
<tr>
<td>STH</td>
<td>Soil transmitted Helminths</td>
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<tr>
<td>SwTI</td>
<td>Swiss Tropical Institute, Basel</td>
</tr>
<tr>
<td>STIs</td>
<td>Sexually Transmitted Infections</td>
</tr>
<tr>
<td>SVK</td>
<td>Savannakhet</td>
</tr>
<tr>
<td>SW</td>
<td>Service Women</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TBA</td>
<td>Traditional Birth Attendants</td>
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<tr>
<td>TBC</td>
<td>Tuberculosis</td>
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<tr>
<td>TT</td>
<td>Tetanus Toxoid</td>
</tr>
<tr>
<td>URI</td>
<td>Upper Respiratory Infections</td>
</tr>
<tr>
<td>VHV</td>
<td>Village Health Volunteer</td>
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<tr>
<td>VKT</td>
<td>Vehicle Kilometres Travelled</td>
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<tr>
<td>VSSS</td>
<td>Village Sentinel Surveillance System</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WCD</td>
<td>World Commission on Dams</td>
</tr>
<tr>
<td>WESR</td>
<td>Weekly Epidemiological Survey Report</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</tbody>
</table>
PART 1: HEALTH IMPACT ASSESSMENT

5.1 INTRODUCTION TO HEALTH IMPACT ASSESSMENT AND THE NT2 PROJECT

5.1.1 Definition, Objectives and Guiding Framework

Health impact assessment (HIA) is a structured method that usually follows a multidisciplinary approach, combines qualitative and quantitative data, and draws extensively on literature reviews and consultation with different stakeholders (Scott-Samuel, 1998, Lock, 2000, Parry and Stevens, 2001, Krieger et al., 2003). There are two essential characteristics of a HIA for a project, programme or policy. Firstly, it seeks to predict the effects of a specific action on human health. Secondly, it aims to inform policy and decision-making for prevention or mitigation of negative impacts (Parry and Stevens, 2001, Kemm, 2003). Opinions and needs expressed by the communities that will be affected by a policy, programme or project should form an integral part of HIA (Appiah-Opoku, 2001, Scott-Samuel et al., 2001, Awakul and Ogunlana, 2002). The method has recently emerged also as a potentially powerful tool for evidence-based health policy and planning (Lock, 2000), and hence sustainable development (Scott-Samuel et al., 2001). Consequently, international institutions, such as the World Health Organization (WHO) and the World Bank, increasingly support HIA (Krieger et al., 2003, Mercier, 2003, Morgan, 2003). In fact, efforts are underway to build this methodology into their operational practices, and a series of workshops have been carried out to train local people in HIA. However, it should be noted that in contrast to environmental impact assessment (EIA), which already spans a history of three decades, HIA is at an early phase in its development, as it was conceptualised only in the mid 1990s (Krieger et al., 2003). Key objectives of a HIA of a policy, programme or project are:

- to establish the baseline of existing health conditions in a project area;
- to evaluate the potential health impacts on individuals, populations and communities influenced by a project, programme or policy;
- to employ qualitative, semi-quantitative or fully quantitative data for assessment of health impacts, where impacts can be neutral, positive or negative;
- to provide a formal mechanism that involves and engages the relevant stakeholders to ensure appropriate discussions directed towards the prevention and mitigation of negative effects on health; and
- to provide a basis, if necessary, for developing formal mitigation action plans.

Within this conceptual framework, large infrastructure developments, like water resource development and management projects (e.g. dam construction for hydroelectric power production) or petroleum development and pipeline projects, invariably trigger the need for some type of HIA. It is well known that major hydroelectric water resource developments can have far-reaching and long-term impacts not only on the physical environment, but also on social and economic aspects of life, including the health and well-being of surrounding communities (Hunter et al., 1993, Jobin, 2003). However, historically, it has not always been recognized that large water resource development projects can also have an impact on the health of communities and individuals located in multiple, often distant, geographical regions besides the immediate dam construction area. These areas include:

- watershed areas;
- downstream areas;
- resettlement areas, planned;
- resettlement areas, spontaneous, also known as camp followers areas; and
- transportation corridors (e.g. roads, bridges, airstrips and associated villages and communities).

All of these areas, in addition to the construction camp locations, will be treated as Potential Impact Areas Of Concern (PIA) and 1) analysed for potential health impacts and 2) utilized to develop and put forward sound mitigation strategies. From a definitional perspective, a PIA can refer to both defined human
groups (e.g., camp followers) and/or geographical areas (e.g., downstream). The PIAs relevant to the Nam Theun 2 (NT2) HIA will be presented in detail in Section 5.2.

The Nam Theun 2 Power Company’s (NTPC)’s strategy during the development of the NT2 Project is based on 1) ensuring the good health of the workforce, 2) mitigating impacts and 3) promoting positive improvements in the health of the host communities. The overall public health management approach focuses on incorporating workforce and community health considerations systematically and co-operatively into project planning and management. The HIA is an important core element of this public health strategy. The HIA seeks to predict the impact on health of the project before it is implemented, so that:

- potentially significant adverse effects can be avoided or reasonably mitigated;
- potentially positive effects enhanced; and
- the probability of sustainable development increased (Birley et al., 1997, WHO, 2000).

The HIA is one of the studies required by NTPC as part of the Social Development Plan (SDP). Hence, the HIA should be read and evaluated as part of the overall suite of the SDP documents that includes the Ethnic Minority Development Plan (EMDP) and the Resettlement Action Plan (RAP). In addition, there is a detailed Environmental Assessment and Management Plan (EAMP) that contains a comprehensive assessment of potential environmental impacts. The HIA draws upon these key documents for detailed objective data that is relevant to the assessment of potential Project-related health impacts. Since the HIA is part of this suite of impact assessment materials, there will be specific cited references to both descriptive technical sections and maps contained in the SDP and EAMP. However, there will be some synoptic information presented in certain key sections of the HIA so that the reader understands the overall intersection between the human inhabitants and the geography potentially impacted by the project. Therefore, some information from both the SDP and the EAMP will be recapitulated in Section 5.2 of the HIA report. However, the materials and maps will be presented in a fashion so that they are keyed to human inhabitants and potential health impacts.

The form and content of the HIA are consistent with previously published materials from the World Bank (Birley et al., 1997, Listorti and Doumani, 2001), WHO (WHO, 2000, WHO, 2001) and the World Commission on Dams (World Commission On Dams, 2000). These sources in turn reflect the general HIA guidelines published by the national governments of Australia, Canada, and the United Kingdom. Finally, where appropriate, the relevant peer-reviewed international literature is also cited, so that the interested reader can further follow-up on these methodological and scientific issues. Our aim is to selectively cite key references rather than to provide an exhaustive literature review. We believe that this approach will facilitate convenient studying of the current document, while simultaneously providing pointed guidance for those who wish to become more familiar with the general opportunities and challenges of HIA.

5.1.2 Description of the NT2 Project

The Government of the Lao People’s Democratic Republic (Lao PDR) and the NTPC are proposing to construct and operate the Nam Theun 2 Hydroelectric Project (the Project) in central Lao PDR.

Lao PDR is situated in the Centre of mainland Southeast Asia. The country covers an estimated surface area of 236,800 km2. Lao PDR is a landlocked country with some mountainous areas, but the large majority of the country is located within the lower watershed of the Mekong River, which borders or traverses much of the length of the country in a generally north to south direction. In 2002, the estimated population of Lao PDR was 5.5 million (WHO, 2003b). More than three-quarter of the population currently live in rural areas, in sparsely distributed villages, where access can be problematic due to difficult terrain and the monsoonal climate. Lao PDR is bordered by the Chinese province of Yunnan to the north, Vietnam to the east, Cambodia to the south, Thailand to the west and by Myanmar to the northwest.

The Project will be located in Khammouane province, in central Lao PDR. A main dam on the Nam Theun, a tributary of the Mekong River, will create a 450 km² reservoir on the Nakai Plateau at full supply level, with a total storage volume of 3,910 million m³. Water from the reservoir will drop by approximately
350 m to a power station, located at the base of the Nakai plateau near the town of Gnommalat. The water discharged from the power station will then flow into a regulating pond and from there to the Xe Bangfai river via a 27 km long downstream channel. The power station will have a generating capacity of 1,080 MW (net 1,070 MW). Approximately 995 MW of electricity will be sold to the Electricity Generating Authority of Thailand (EGAT) and 75 MW of electricity will be sold to Electricité du Laos (EDL). The electricity generated for sale to Thailand will be delivered by a 138 km long, double circuit, 500 kV transmission line. The transfer point is to be located on the Lao PDR-Thailand border near the city of Savannakhet. A 70 km long, 115 kV transmission line will deliver electricity from the power station to the Thakhek sub-station for connection to the EDL system.

5.1.3 Project infrastructure

The Project will divert discharge stored on the Nakai plateau from the Nam Theun to the Xe Bangfai, in doing so producing electricity for delivery to EGAT and EDL utilizing the difference in elevations between the Nakai plateau and the plain. To accomplish this certain infrastructures will be constructed and will include:
- dam on the Nam Theun and necessary saddle dams to create the Nakai reservoir;
- structures to divert flow from the Nakai reservoir to the power station;
- power station with the necessary facilities for converting the energy to electricity;
- downstream hydraulic control and conveyance structures to direct the diverted flows to the main channel of the Xe Bangfai;
- transmission lines to interconnect the power station switchyards with the EGAT and EDL power transmission systems; and
- ancillary works to enable construction, operation and maintenance of the Project and to meet other obligations of NTPC.

5.1.4 Project Schedule

Some preliminary works will start before Financial Close. They include, among other activities, the construction of the access road from Road 8B to the site of the Nakai dam and the upgrading of existing roads to provide access to the construction camps and work sites. Further roadwork, e.g. to Residence Nam Theun, and excavation of the power station site, access and drainage tunnels, as well as campsite construction may commence at approximately the same time as Financial Close.

The construction of the Nakai dam, saddle dams, headrace channel, inlet works, tunnels and shafts, power house, tailrace channel, regulating dam, downstream channel, transmission lines, substations, plant, roads and operator’s village will be initiated after Financial Close. A tentative schedule for the Project’s construction is presented in Table 2.4 of the EAMP. The Nakai dam and appurtenant features are scheduled to be completed within 38 months. The mechanical and electrical installations will proceed as soon as possible in conjunction with the completion of the civil works. The total construction phase for the Project, including commissioning, is estimated to be 54 months from Financial Close. Commissioning, testing and acceptance under the EGAT PPA are scheduled to commence 46-47 months after the Financial Close date.

5.2 Potential Impact Areas of Concern (PIA)

As described in the EAMP, the study area includes geography that will be affected although possibly not directly impacted by the Project. The north-south dimension of the environmental study area is 240 km in length and extends from the Mekong River confluence of the Nam Kading to the point on the Mekong River where the power transmission line crosses into Thailand. The east-west extent is 110 km from the Lao PDR-Vietnam border to the Lao PDR-Thailand border. The area incorporates approximately 26,400 km².

EAMP Figure 3.1 identifies all of the study areas divided into 15 environmental study zones (ESZs). While useful for the environmental assessment, this zonal configuration has less utility for the HIA. Consequently, after substantial collaborative discussions with different key stakeholders, the Project has been divided into discrete “Potential Impact Areas” (PIA) for HIA purposes. In this conception, a PIA can represent either a “subject matter”, usually composed of a specific population group (e.g., camp
followers), or a defined geographical area (e.g., downstream) where Project-related health impacts have a reasonable likelihood of occurrence.

The PIAs due to the NT2 Project activities were classified into two groups with 8 PIAs which preliminarily ranked (high-low) impacts of each PIA group as follows:

(i) Resettlement and geographical impact areas

- PIA #1 Plateau resettlement area
- PIA #2 Regulating pond and downstream channel area
- PIA #3 Villages along the Xe Bangfai
- PIA #4 Nam Theun riparian area
- PIA #5 Villages in the NT2 watershed

(ii) Construction work related areas

- PIA #6 Construction work camps (workers)
- PIA #7 Construction work related groups (locals and followers)
- PIA #8 Transportation corridor

Those PIAs are briefly summarized below. The corresponding ESZs are given in brackets for ease of cross-reference with the EAMP. Finally, at the end of this discussion, we present one additional PIA that might potentially be included for further appraisal of health-related issues.

PIA #1: Plateau resettlement area (ESZ #1 and #3)
- Approximately 1,030 families and 5,700 people reside in the zone that will be inundated; hence, the affected population will require relocation to this newly constructed area.

PIA #2: Regulating pond and downstream channel area (ESZ #7, 8, 9 and #10)
- This area consists of (i) the power station, (ii) the regulating pond, (iii) the downstream channel area, (iv) the Nam Kathang river, and (v) the upper Xe Bangfai area. An estimated 60 households will be affected by the construction of the downstream channel, and more than 20 villages are located along the Nam Kathang and the upper Xe Bangfai between the confluence with the Nam Kathang and the Sayphou Xoy Ridge.

PIA #3: Villages along the Xe Bangfai (ESZ #11 and #12)
- Twelve villages are located along the middle portion of the Xe Bangfai, from the Sayphou Xoy Ridge to the crossing with Road 13. Numerous, fairly densely populated villages are located along the 70 km stretch of the lower Xe Bangfai ranging from the Road 13 crossing to the confluence with the Mekong River.

PIA #4: Nam Theun riparian area (ESZ #4 and part of ESZ #5)
- This area includes the small stretch of riparian land from the Nam Theun between the Nakai Dam and the Theun Hinboun Dam covering approximately 130 km². The watershed has an estimated surface area of 4,061 km².

PIA #5: Villages in the Nam Theun 2 watershed (ESZ #2)
- An estimated 5,5000 people live in some 30 scattered villages located in the Nam Theun watershed area, covering approximately 3,500 km².

PIA #6: Construction work camps (parts of ESZ #6, 7 and 8)
- There are four general zones that have been identified for the development of construction work camps within the Project area. These zones, and their expected peak workforces are: (i) dam area construction camp (800 workers), (ii) Nakai work camp (600 workers), (iii) power station work camp (2,200 workers), and (iv) downstream work camp also known as Xe Bangfai (400 workers).

PIA #7: Camp followers: family& service (parts of ESZ #6, 7 and 8)
- There is a significant potential that substantial numbers of the workforces’ family will co-locate in the same geographical area as the working spouse. It is reasonable to assume and anticipate that significant numbers of food, entertainment, and service vendors will try to co-locate in close proximity to the work camps and/or family followers. Based on recent experiences at other
construction sites in central Lao PDR, the overall estimated total camp followers (both family and service) are 2-4 times the workforce census.

PIA #8: Transportation corridor (throughout different ESZs)

- As part of the Project, a variety of new roads and bridges will be constructed and existing roads upgraded. In addition, there will be significant overland truck utilization of existing road networks in order to supply the various construction activities across the entire Project.

5.2.1 Plateau resettlement area (PIA #1)

An area along the rim of the Nakai Plateau has been delineated as the area where residents of the inundated areas will be relocated. The area consists of approximately 208 km² and is located along the rim of the Plateau escarpment. The region is vegetated with secondary forest, shrubs, grasses and agricultural areas. Drainage from the area flows into the Nam Theun. At its northern end, the resettlement area is immediately adjacent to the Nakai Nam Theun – Phu Hin Poun Corridor. Current residents of this area are primarily in the villages of Nakai Tai and Nakai Neua. The district headquarters, Ban Oudomsouk, is also located in this area. At present, there is a pilot resettlement programme involving approximately 30 families. This pilot programme provides an opportunity to investigate the direct and indirect impacts of resettlement on changes and adaptations in livelihood activities, primarily farming activities, and health, which will be key to readily adapt mitigation strategies. A major focus of the HIA will be on this area.

5.2.2 Regulating pond and downstream channel areas (PIA #2)

Discharge of water from the power station will be diverted into the regulating pond and then discharged through the downstream channel to the Xe Bangfai. Approximately 60 households will be affected along the route of the 27 km long downstream channel. Construction of this channel will impact rice paddies and will require modification of the Nam Phit. Consequently, an important area of investigation of the HIA is appraisal of potential impacts on water-related vector-borne diseases and development of sound mitigation strategies for this area.

The Upper Xe Bangfai zone extends from the confluence of the Nam Kathang and the Xe Bangfai to the Sayphou Xoy Ridge located about 25 km downstream from Mahaxai. This gorge can cause backwater during flooding, and hence aggravate flooding upstream of the gorge. The primary health issues in villages along the upper Xe Bangfai are related to significantly increased discharge in the river and the related changes in land- and water-use in this area of the Xe Bangfai. Sixteen villages are located along the upper zone of the Xe Bangfai river reach and changes in water quality and quantity may affect fish populations, and hence alter nutritional patterns among villagers that rely on fishery of the upper Xe Bangfai. Thus, similar to the area affected by the regulating pond, the downstream channel and the modified Nam Kathang, the focus of the HIA of the upper Xe Bangfai will be on both water-related vector-borne diseases and nutrition-related issues.

5.2.3 Villages along the Xe Bangfai (PIA #3)

The middle Xe Bangfai zone extends from Sayphou Xoy Ridge to the Road 13 crossing. There will be an increase in dry season discharge through this reach that can facilitate navigation and improve irrigation potential. Twelve villages are located along this reach. Some of the villages have initiated dry season irrigation that may increase with additional water in the Xe Bangfai. It is conceivable that intensified agricultural production will lead to enhanced utilization of fertilizers and pesticides, which can have important negative health consequences.
The increased discharges are expected to result in additional riverbank erosion with the possibility of some elimination of riverbank gardens during the dry season. The effects of altered discharges on fishery are difficult to predict, hence it is hard to anticipate whether or not this will result in changes in human nutritional patterns. In brief, both direct and indirect health effects are possible in the middle Xe Bangfai area.

The lower Xe Bangfai, or the Xe Bangfai flood plain, covers an area of about 50,000 ha ranging from its confluence with the Mekong River to where Road 13 crosses the Xe Bangfai. This includes approximately 70 km of river. The area is fairly densely populated and is a major area of rice production in Khammouane province. The lower Xe Bangfai currently experiences rainy season flooding in most years. As will be presented in Section 5.6, the baseline health and nutritional data in the lower Xe Bangfai are somewhat different than seen in the Project construction areas, i.e. significant rates of dengue fever during the rainy season, considerably lower malaria rates and high levels of subsistence fishing. Similar to the middle Xe Bangfai, it is hard to predict overall changes in fishery due to altered discharges in the lower part of the Xe Bangfai; hence, it is difficult to make predictions for nutritional-related health aspects. In the case of intensified agricultural production, it is likely that fertilizer and pesticide application to the fields will increase. Consequently, both direct and indirect health effects are possible in the middle and lower Xe Bangfai area and are a major focus of the HIA.

5.2.4 Nam Theun riparian area (PIA #4)

The Nam Theun riparian area covers a geographical zone 3-5 km wide by approximately 32 km long and an estimated surface of 130 km². The area includes the riparian land of the Nam Theun from the Nakai dam site to a point where the river meets the backwaters of the Theun Hinboun reservoir. There are no established villages or permanent settlements in the riparian area and hence, health impacts are generally expected to be minimal. No information about the estimated population living in the 4,061 km² wide watershed area is available from the Project documents. It is anticipated that these individuals will be affected only minimally by the Project. The HIA does, however, address this area in some detail.

5.2.5 Villages in the Nam Theun 2 watershed (PIA #5)

The Nam Theun 2 watershed area has a human population of approximately 5,500. They belong to various ethnic minority groups, rely on natural resources, and have unique languages and cultural histories. This area will not be directly affected by the Project, and management and development of the area is covered by the operations of the Watershed Management and Protection Authority (WMPA) as defined in the SEMFOP.

5.2.6 Construction work camps (PIA #6)

There are four proposed construction work camps ranging in size from 400 to 2200. As currently envisioned, these camps would be located in different geographical areas in order to more efficiently perform the required construction activities. Based on past experiences in the developing world, the construction work camps are expected to be a significant source of potential impacts to the surrounding communities. These potential impacts will be discussed in subsequent sections. In addition, a permanent presence known as the Nam Theun Residence will also be constructed. Approximately 150 permanent employees will be housed at the Residence Nam Theun to enable the ongoing operation and maintenance of the facility. This new village will be constructed near the regulating dam.

5.2.7 Camp followers: family and services (PIA #7)

Experience at other large construction sites in the developing world, where major infrastructure developments had been implemented, have demonstrated that large numbers of family members may follow the construction workers to the new work site. The exact numbers and locations where these family members will locate are unknown. In a recent experience within the Project area, a large, multi-
month road improvement project was carried out in the district of Gnommalat and surrounding areas to upgrade and pave Road 12 from the village of Phalboung all the way to the Vietnamese border. Onsite inspection and interviews with local management revealed that family camp followers were strongly discouraged by direct government intervention, thereby preventing growth of adjacent squatter villages. Whether this experience will be transferable to the Project camps is uncertain, particularly because the number of workers was significantly lower than in the current Project, and because the duration of road construction was significantly shorter than that of the present Project. However, there are several factors that indicate that spontaneous settlement areas may not explosively develop. Firstly, access to some of the camp locations is physically difficult and can only be made via an easily controlled road. Secondly, the government has demonstrated that it is prepared and willing to take action to significantly curtail, if not eliminate, spontaneous settlements. Thus, previous experiences gained elsewhere in the developing world may only be of limited relevance in the context of the NT2 Project. Nevertheless, potential health-related impacts due to large influxes of family members following the camp workers could be significant; hence the current HIA will carefully explore these potential impacts in subsequent sections.

In addition to the family camp followers discussed above, and probably of even greater relevance, the HIA will examine the potential impacts of non-local ‘service’ camp followers. Under the term “service” we refer to food, entertainment (e.g. sex) and merchandise providers who live adjacent or reasonably close to new work camps. At other locations in the developing world, the potential impacts of camp followers that provide these kinds of ‘services’ have been significant, and were often related to the transmission and amplification of sexually-transmitted infections (STIs), including HIV/AIDS. Consequently, the HIA will carefully address this issue and put forward a rigorous plan to mitigate the potential health-related impacts of this group and its interaction with the surrounding villages and communities.

5.2.8 Transportation corridor (PIA #8)

The NT2 Project will construct and/or improve a number of roads and both these new and upgraded roads will accommodate an increased volume of supply and equipment trucks expected during the construction, and to some degree also during operation of the Project. From a HIA perspective, transportation corridors are critical sources of direct and indirect impacts, including (i) traffic injuries and accidents, (ii) road dust that can lead to increase in respiratory diseases, (iii) facilitation of illicit drugs trade and (iv) facilitation of the spread of STIs, including HIV/AIDS, via long haul truckers and spontaneous development of road side bars and truck stops. Consequently, the HIA places strong emphasis on this aspect of the Project.

5.2.9 Possible additional PIA

Because of the nature of the NT2 Project, i.e. impounding the Nam Theun, but discharge of its water into another river system, namely the Xe Bangfai, the entire ecosystem immediately downstream of the dam site, as well as along the Nam Kading between the Theun Hinboun dam and the confluence with the Mekong River will be altered. However, the EAMP documentation emphasizes that the ecosystem downstream of the Theun Hinboun dam had been altered significantly due to the construction of this dam many years ago. Hence, potential health impacts and mitigation strategies should have been addressed by this preceding project. It is currently difficult to make meaningful predictions of potential incremental changes in both ecology and human health in this area. While the HIA study team recognizes this vast geographical area as a possible additional area of concern, in line with the EAMP documents, no attempt is made to specifically address health issues in this zone.

5.3 MODEL OF HIA WITHIN THE NT2 PROJECT

5.3.1 Background

During the composition of the HIA there was not a formal screening, scoping, profiling/appraisal exercise. However, significant health-related issues have been raised by the various stakeholders during numerous meetings and consultations for developing the SDP. With the objective to strengthen local capacities in the emerging field of HIA, two WHO sponsored and led HIA workshops, which included many key government stakeholders as attendees, were held in Lao PDR in March 2003 and October/November 2003. Specific discussions regarding the NT2 Project, e.g. health surveys carried out in the NT2 project area and appraisal of health coverage in the SDP and EAMP, were presented during the March 2003 workshop. Within this context, it is clear that the NT2 project has gone through a
“screening, scoping and appraisal” such that a full HIA is considered an essential part of the SDP and overall impact assessment process.

In addition, as part of the preparation of this report, the HIA team performed five days of field investigation that included numerous visits to various project areas (e.g. Nakai plateau and the Xe Bangfai downstream areas), with a particular emphasis on appraisal of current health care delivery structures (both availability and performance) from the grass-root to the district hospital level. In addition, multiple meetings were held with Ministry of Health (MOH) officials and disease and health systems specialists at the district, provincial and national level. At each village meeting, specific consultations were held with the village chief and, where appropriate, with the village health volunteer (VHV). The VHV is in charge of running the revolving drug fund (RDF) programmes and the selling and re-impregnation of insecticide-treated bednets (ITNs). It is important to note that ITNs have proven efficacious and cost-effective for the control of malaria in different ecological and epidemiological settings (Lengeler, 2000). There is growing evidence that over the past decade Lao PDR, as well as Vietnam and Cambodia, have made substantial progress in the control of malaria, which is partially explained by rigorous implementation of ITNs (Kobayashi et al., 2004, Trung et al., 2004).

5.3.2 HIA Timescale

This HIA focuses predominately on construction activity and the early commissioning and operation phases. The construction mobilization is planned to begin in 2004/2005 with full construction activities occurring over 2005-2008. Operation phase transition will occur during 2008-2009. This HIA does not address either the post handover period (that is not anticipated for 25 years) or potential decommissioning in the distant future.

5.3.3 Scope of the HIA

The focus of the HIA is on both general and specific public health issues, e.g., water and sanitation (general) malaria and HIV/AIDS (specific). Typical occupational health concerns, such as musculoskeletal injuries, are viewed as ‘inside the fence’ risks and are considered within the Head Contractors Construction Safety Plan. Experience with other large infrastructure projects in developing countries demonstrates that the HIA should adopt a reasonably broad perspective when addressing the potential public health impacts and include not only the immediate construction areas but also 1) communities and villages within road and transmission line spheres of influence and 2) the health impact individuals who may follow the Project referred to as “camp followers.” As previously noted, “camp followers” is a generic term that refers to two groups: 1) family and relatives of project workers/staff and 2) service industry providers economically attracted to the project, e.g., food vendors, entertainment (e.g., sex), consumable goods, etc. Since the NT2 Project zone of potential influence extends over an extremely large area, it is possible that a substantial level of the individuals within the Project geography will experience some level of impacts, potentially positive and/or negative.

5.3.4 Areas outside the scope of the HIA

The study does not address occupational health risks on the construction sites, which are the responsibility of the Contractor’s Construction Safety Plan and Project Staff Health Plan.

The HIA is not a quantitative risk assessment, such that numerical predictions of risk are not calculated or presented.

5.3.5 Interface of the HIA with the SDP and EAMP

A variety of potential social and environmental impacts are discussed in the overall SDP and EAMP volumes. There are numerous issues that overlap across these volumes. For example, 1) labour trafficking during the construction phase and 2) particulate and vehicle emissions air pollution impacts. Labour trafficking issues are clearly a primary social concern and only secondarily and indirectly an issue for the HIA. Lao PDR is a party to several international treaties that include provisions on trafficking. Particulate and vehicle emission air pollution generates both primary health as well as environmental concerns. Air pollution impacts may also have social implications; therefore, where appropriate, other volumes are cross-referenced. However, this report was developed so that interested reviewers, who may not have the full suite of SDP and EAMP materials, could still reasonably study the HIA as a “stand-alone” report.
Nevertheless, many of the most critical engineering schematics and design details are available in the EAMP and are not included in the HIA.

5.3.6 Institutional Issues

The NT2 is a complex project with a specific framework, known as the Concession Agreements, for the division of responsibilities between NTPC and the Government of the Lao PDR. In the Resettlement Action Plan (RAP), this division of responsibilities is summarized in Table 16.6. For example, the leading role in the “Resettlers and Regional Health Programme” is the Government of Lao (GOL). However, the HIA will analyse and present potential health impacts regardless of “Responsible Party.” The development of a mitigation strategy, known as the Public Health Action Plan (PHAP) will be a collaborative effort between the GOL, NTPC and the relevant health stakeholders.

5.3.7 HIA Study Team

The HIA study members consisted of the following members:

- Gary R. Krieger (MD, MPH, DABT; NewFields, LLC, Denver, CO, USA): Overall team leader;
- Marci Balge (RN, MSN; COHN-S, NewFields, LLC, Denver, CO, USA): Public health action plans;
- Jürg Utzinger (PhD; Swiss Tropical Institute, Basel Switzerland): Water-borne diseases and baseline health analysis; and
- Soutsakhone Chanthaphone (MD; Deputy Director, Ministry of Health, National Center for Environmental Health and Water Supply; Vientiane, Lao PDR): Field survey facilitator and translator.

The HIA team finished the preliminary draft in March 2004, the first draft report was sent to the acting World Health Representative to Lao PDR, and HIA Taskforce of Department of Hygiene and Health Promotion Lao PDR for comment. Dr Dirk Horemans and Dr. Valery Gilbos (Belgian public health experts) and Dr Yanyong Inmuong (a Thai environmental health specialist) later worked on improvement of this HIA report.

5.3.8 Impacts Categorization

In general, impacts exist in two broad categories: (i) those that are internal (within the project facilities) and are therefore directly amenable to technical and managerial control by the overall private sector contractor, and (ii) those that are external to the project facilities and require government involvement and full participation. This distinction between “internal” (private sector) and “external” (government) is a useful construct for contracting purposes but is entirely artificial from a biological and medical perspective. The potential problem of camp followers illustrates this problem. The same basic beneficial design measures that are incorporated into both internal camp construction and resettlement areas (e.g. housing design, water supply and sanitation) could be developed for camp follower areas if these develop. If camp follower areas are present, it is obvious that there will be a potentially significant interaction between the two groups; hence, the transmission and amplification of disease can easily overwhelm basic design measures if the two areas are not treated in a generally similar fashion.

The development of a nomenclature system for impacts categorization is an arbitrary but essential process. The available HIA guidance for this issue is quite general and not consistent across published materials. For the NT2 HIA a three-part risk rating system based on a recent WHO document, entitled “Human health and dams”, has been selected (WHO, 2000), as follows:

- no change (from baseline);
- significant (adverse); and
- enhancement (improvement).

Significant risks can often be mitigated (lessened) back to baseline conditions if appropriate public health action plans are developed and rigorously implemented. Conversely, the potential exists that some significant impacts cannot be mitigated and require some type of other compensatory mechanism. Similarly, there is the obvious possibility that enhancement (improvement) in a specific risk profile may occur. Typically, there is a spectrum of risks that will be identified in the HIA. The goal of the Public Health Action Plan (mitigation plan) is to potentially mitigate all identified significant risks to acceptable levels; however, it is important to recognize that in every circumstance this may not be fully possible.
5.3.9 Direct versus indirect effects

There are two general categorizations of impact effects, namely (i) direct and (ii) indirect. A direct effect demonstrates a specific cause-and-effect relationship. For example, the presence of service workers and the increased likelihood of STI transmission is a direct effect relationship. In Lao PDR, “service workers” is the preferred descriptive term of art rather than commercial sex workers (CSWs). An indirect effect is a secondary by-product of an interaction among multiple variables. As a hypothetical example, potential changes in water quantity and quality in the downstream area of a dam reservoir might have an impact on fishery, and hence fishing yields. This might impact overall nutritional status of populations who rely on fishery as an important part of their livelihoods, which in turn can have an impact on people’s immune status. As a consequence, this people can become more susceptible for particular diseases, which can finally result in changes in corresponding disease rates (incidence and prevalence).

Indirect effects are often of equal or greater significance than the more obviously observable direct impacts. The HIA will analyse both potential direct and indirect effects. Theoretically, there are a virtually limitless number of indirect effects that could be hypothesized. In order to manage this problem, two issues are important to highlight. Firstly, a set of most likely indirect effects should be constructed on the basis of past relevant experiences at similar projects. Secondly, a sufficiently robust monitoring and surveillance system should be developed that facilitates early detection of significant indirect effects. Therefore, the monitoring and surveillance must have sufficiently sensitive and specific endpoints so that changes in key objective endpoints (e.g. mortality, malaria slide positive rates in sentinel villages) can be documented in an appropriate and timely fashion. The overall Public Health Action Plans, including recommendations for disease monitoring and surveillance, will be discussed in Section 5.12.

5.3.10 Cumulative impacts

As pointed out by (Brismar, 2004), there is no specific definition for cumulative impacts in the existing published environmental assessment methodologies. Not surprisingly, there is no agreed upon definition for cumulative impacts from an HIA perspective. While definitional precision has been lacking, Brismar points out that some central properties of cumulative impacts for environmental studies have been recognized:

- may arise on any type of environmental impact receptor at any scale;
- are triggered by multiple causes or impacting factors; and
- are generated by multiple impact pathways, generally involving multiple root causes and lower and higher effects, interlinked by cause-effect relationships;
- for human health impacts, an analogous configuration can be proposed;
- may arise on a human receptor at any scale;
- are triggered by multiple causes, e.g., interaction of multiple health issues on one receptor (individual);
- are generated by multiple impact pathways, e.g., water pathways changing communicable vector diseases rates coupled with changes in nutrition (increased susceptibility) due to loss of agricultural lands.

In this HIA, cumulative impacts will be considered but only in a qualitative fashion since the methodology does not currently exist to perform a fully quantitative analysis. Cumulative impacts will also be considered in the Public Health Action Plan (PHAP); however, the ability to accurately and quantitatively monitor, survey and measure for multiple effects is not methodologically well-developed in the literature.

5.3.11 General Methodology

For the current HIA, both the World Bank (Birley et al., 1997, Listorti and Doumani, 2001) and the World Health Organization (WHO, 2001) recommendations have been utilized. In addition, published HIA guidelines from Australia, the UK, Canada and the European Union have also been consulted. Other recently completed HIAs for large infrastructure projects (e.g. pipelines and other large scale oil/gas developments) have also been reviewed and utilized.
NT2 is an ambitious hydroelectric water resources infrastructure project that clearly has specific economic objectives and drivers. It is embedded in cohesive socio-economic development and poverty alleviation rationales that are in line with internationally agreed development targets, namely the Millennium Development Goals (MDG). In order to achieve these development goals, it has been recognized that early identification of potential health impacts, both positive and negative, and mitigation of the negative ones, are of critical importance. While there is a longstanding practice, invariably embedded into legislation, for performing an EIA, a universally accepted methodology for HIA still awaits further development (Utzinger et al., 2004). Not surprisingly, there have been very few full HIAs that have been conducted and published to date. For an excellent discussion on this matter, the interested reader is invited to consult the February 2004 issue of a specialist journal entitled “Environmental Impact Assessment Review”. This observation is particularly true for large water resources projects like dams. While there is a long, complex and often controversial history surrounding dam related EIAs (Brismar, 2004), there have been virtually no full length HIAs for any of the large dam projects over the last ten years.

In keeping with the approach already developed for the EIA, NTPC has generally adopted a model for the HIA described in recent World Bank publications, namely (i) the “Environmental assessment sourcebook update” of July 1997 (Birley et al., 1997), and (ii) the “Bridging environmental health gaps” (Listorti and Doumani, 2001), as well as the recent WHO document entitled “Human health and dams” (WHO, 2000).

Due to continued concerns surrounding large water resource development and management projects and human health, WHO recently submitted a position paper entitled “Human health and dams” to the World Commission on Dams (WCD) (WHO, 2000). The WCD had previously published a detailed series of guidelines covering environmental impact assessments and water resources projects (World Commission On Dams, 2000). While the 2000 WCD guidelines contain extensive recommendations for social and environmental assessment, surprisingly little was related to human health. The WHO approach defines a general framework for completing an HIA, although it does not develop or present HIA methodology to the same level of detail as proscribed for social and environmental impacts by either (i) the World Bank EIA guidelines or (ii) World Bank Safeguard Directives covering the environment (environmental assessment, natural habitats), rural development (pest management, forestry and safety of dams), social development (management of cultural property, indigenous peoples, involuntary resettlement), and international law (international waterways and disputed areas).

As seen in Table 5-1, the WHO model assesses six general categories of health issues. The specific example and knowledge-base findings are meant to be for illustrative purposes and are not necessarily specific to the NT2 project.

<table>
<thead>
<tr>
<th>Health issue</th>
<th>Example</th>
<th>Knowledge-base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicable diseases</td>
<td>Vector-borne</td>
<td>Large, reliable</td>
</tr>
<tr>
<td>Non-communicable diseases</td>
<td>Pesticide exposure</td>
<td>Reliable, generalisable</td>
</tr>
<tr>
<td>Accidents and injuries</td>
<td>Construction and traffic-related</td>
<td>Reliable, some statistics</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>Vitamin A deficiency</td>
<td>Variable, potentially quantifiable</td>
</tr>
<tr>
<td>Psychosocial disorder</td>
<td>Substance abuse</td>
<td>Poor reliability, cultural variation</td>
</tr>
<tr>
<td>Social well-being</td>
<td>Quality of life, equity</td>
<td>Variable reliability</td>
</tr>
</tbody>
</table>

In a traditional biomedical model, these health issues are usually associated with disease timing, i.e. acute (rapid) or chronic (delayed) onset. However, for the NT2 Project, some of the timing issues are analysed as a function of seasonality, distinguishing between dry and rainy season (Table 5-2). As will be discussed in subsequent sections, seasonality is a critical parameter for many disease risks in specific PIA. For example, dengue fever rates in villages located along the Xe Bangfai are highly correlated with flooding events that occur quite regularly during the rainy season. Therefore, the NT2 HIA will analyse timing based on dry versus rainy season effects as opposed to acute or chronic onset.
### Table 5-2: Model For The Current HIA According To Seasonality Of Health-Related Issues.

<table>
<thead>
<tr>
<th>Health issue</th>
<th>Seasonality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dry season</td>
</tr>
<tr>
<td>Communicable diseases</td>
<td>Water-borne</td>
</tr>
<tr>
<td>Non-communicable diseases</td>
<td>Road dust production</td>
</tr>
<tr>
<td>Accidents and injuries</td>
<td>Construction, traffic related trauma</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>Agricultural production</td>
</tr>
<tr>
<td>Psychosocial effects</td>
<td>Availability of river gardens</td>
</tr>
<tr>
<td>Social well-being</td>
<td>Ease of communication, movement</td>
</tr>
</tbody>
</table>

Similarly, health issues can be compared to different Project stages. For the NT2 Project, the different phases are quite critical and are likely to generate different types and levels of impacts within these different time periods. For purposes of the current HIA, a more Project-specific set of phases has been selected. It includes the following time periods:

- baseline;
- pre-construction transition, transition and mobilization;
- active construction;
- commissioning and reservoir filling;
- early operations/post reservoir filling;
- standard operations; and
- decommissioning.

Using the basic WHO health issues categorization model, Table 5-3 summarizes some of the relevant health-related assessments, as stratified by the various Project phases. The selected “assessments” are for illustrative purposes only since more definitive rationale and assessment are presented in Section 5.7.

### Table 5-3: Health-Related Issues during Different Phases of the NT2 Project.

<table>
<thead>
<tr>
<th>Time period</th>
<th>Communicable diseases</th>
<th>Non-communicable diseases</th>
<th>Nutrition-related health issues</th>
<th>Accidents and injuries</th>
<th>Psycho-social issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>Studies at province, district and village level</td>
<td>Studies at province, district and village level</td>
<td>Studies at province, district and village level</td>
<td>Studies at province, district and village level</td>
<td>Stress, anxiety</td>
</tr>
<tr>
<td>Preconstruction, transition and mobilization</td>
<td>Diseases related to lack of clean water and improved sanitation</td>
<td>Increased road dust</td>
<td>Food inflation with secondary poor diets</td>
<td>Increased traffic-related accidents and injuries</td>
<td>Stress, anxiety</td>
</tr>
<tr>
<td>Active construction</td>
<td>STIs, including HIV/AIDS, and malaria</td>
<td>Dust-induced respiratory problems</td>
<td>Loss of subsistence</td>
<td>Construction related, traffic</td>
<td>Uncertainty</td>
</tr>
<tr>
<td>Commissioning and reservoir filling</td>
<td>Changes in vector-borne disease patterns</td>
<td>Dust-induced respiratory problems</td>
<td>Changes of agricultural production</td>
<td>Drowning</td>
<td>Stress, anxiety</td>
</tr>
<tr>
<td>Early operation and post-reservoir filling</td>
<td>Water-related diseases (e.g. malaria, dengue)</td>
<td>Increased use of pesticides and fertilizers</td>
<td>Loss of river garden crops and altered fishery</td>
<td>Drowning, and traffic-related accidents and injuries</td>
<td>Displaced communities lose coherence</td>
</tr>
<tr>
<td>Standard operation (3-5 years post-filling)</td>
<td>New steady-state of vector-borne diseases</td>
<td>Pesticide contamination</td>
<td>Loss of agricultural lands</td>
<td>Drowning, traffic</td>
<td>Changes in traditional medicine practices</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Typically, the HIA process utilizes a biomedical model of health, while recognizing that other factors or determinants contribute to health and well-being. Impacts are typically assessed using some type of qualitative risk assessment matrix. This strategy is useful for disease-specific assessment but does not always capture the impacts, positive and negative, that can occur across broad sectors such as housing, sanitation and transportation. The NT2 Project involves resettlement of almost 6,000 individuals on the Nakai plateau. In this context, the additional use of the sectoral approach, (e.g. housing, water supply and sanitation, transportation, etc), entails many potential benefits. This approach will be described in the following section.

5.4 SPECIFIC METHODOLOGY: SECTORAL APPROACH

In 1996, the World Bank released a three-volume report titled “Bridging environmental health gaps, lessons for sub-Saharan Africa infrastructure projects”. In this document, there is a clear differentiation between the traditional definition of “public health” with its disease-specific focus and the more broadly defined “environmental health” which encompasses the “human living environment.” Traditionally, public health is the combination of sciences, skills, and beliefs that are directed to the maintenance and improvement of the health of all people. Therefore, the potential impacts of a major infrastructure project to public health can be substantial in both an adverse and a beneficial manner. Historically, there has not been a set of generally accepted standard guidelines or checklists to direct the public health impacts evaluation of large infrastructure projects, particularly in the developing world. Typically, public health evaluations have primarily focused on mortality and morbidity, and more recently on burden, disability and vulnerability. Both the impacts and potential remediation measures have generally been viewed through a health sector or disease-specific perspective (e.g. malaria control programmes) and have not necessarily considered the overall potential available to the infrastructure sector to positively impact and improve the quality of life and impact disease rates. Since NT2 is a major infrastructure development activity that involves resettlement, it is appropriate to also evaluate the Project’s potential impacts in a broader perspective than restricting the analysis to the more traditional evaluation of disease-associated morbidity, mortality and disability.

According to the formulation constructed in the World Bank document, “environmental health differs from public health” in that “it stresses prevention and concentrates on the human living environment”. Within this context, the focus is shifted towards a consideration of potential impacts in both broad and narrow contextual settings, i.e. the broad perspective associated with development and mitigation of adverse environmental conditions and the more narrow context of diseases and injuries associated with water, sanitation, solid waste, housing, vector control and hazardous materials. Hence, the approach emphasizes the potential linkages between infrastructure-related activities and overall environmental health. While this is a shift from a pure disease specific focus towards an examination of the interconnectedness between overall disease burden and infrastructure impacts, the importance of certain diseases like malaria and sexually transmitted infections (STIs) is not ignored (Birley et al., 1997). For example, malaria control interventions are a traditional health sector approach and are an important consideration for a project. However, a cross-sectoral examination that combines and integrates the potential adverse and beneficial effects of non-health sectors, e.g. transportation, housing and urban development, can conceivably accomplish more than interventions initiated by separate sector initiatives (Hunter et al., 1993, Listorti and Doumani, 2001, Utzinger et al., 2002).

With the World Bank’s initial 1996 publication, and the subsequent update and expansion released in 2001 (Listorti and Doumani, 2001), this international institution has appeared to evolve in its perspective toward environmental health evaluations. Consequently, the analysis of potential health impacts for major infrastructure projects should be conducted in a manner that also incorporates this shift from pure disease-specific morbidity, mortality and disability towards a broader consideration of the linkages between the proposed project and environmental health.

5.4.1 Environmental sub-sectors

In the approach to public health planning within the context of an environmental assessment, the concept of environmental linkages in the overall analysis of impacts and development of potential mitigations is critical. Based on the approach set forth by the World Bank, the following four sub-sectors are evaluated:

housing;
water, sanitation and food;
transportation; and
communication, information and transmission line distribution.

5.4.2 Housing
Housing design and construction can potentially have a major impact on human health. Since there is a planned resettlement area that must be constructed, this event provides a major opportunity for positively exploiting the linkages between the housing sector and human health. Conversely, poorly planned resettlement housing will have the opposite effects. Housing and health linkages can be analysed from multiple perspectives, including:

- **basic structure** – intrinsic design for protection from heat, cold, moisture and pests (insect and rodent); accidents and injuries;
- **location** – potential for flooding, significant erosion and proximity to significant vector sources; and
- **ventilation** – indoor air quality, particularly from cooking sources; respiratory disease transmission (acute respiratory illness, TB); efficient movement of heat and cold, and/or moisture; ease of entry for insect and rodent pests.

5.4.3 Water supply, sanitation and food
Water quality and quantity issues can be analysed from a supply and storage perspective, particularly in regards to new construction like the resettlement areas. While water supply and storage are critical, it is often forgotten that these basic factors are closely tied to sanitation, drainage and hygiene education. Solid, liquid and excreta wastes require some type of system for collection, removal and disposal. The different waste forms can all contain human and/or animal faecal matter that is directly associated with an enormous range of diseases (bacterial, viral and parasitic) that are frequently clinically recorded as diarrhoeas and gastrointestinal disorders. Other types of water related diseases include those associated with specific vectors and water related breeding habitats, e.g. malaria, dengue, leptospirosis, Japanese encephalitis. Soil-transmitted helminths are also a significant concern and based on previous cross-sectional community-based surveys (see Section 5.6) are probably the most common sanitation-related infection.

In many respects, food and water are parallel issues, i.e. there are significant potential impacts associated with quantity, quality, processing, storage and transport. Food sanitation and hygiene are also critical issues, and like water related concerns, are invariably tied to the production of human disease. A wide variety of farm/domestic animal to human disease transmission can occur. Similarly, diseases transmitted through the habit of eating raw or undercooked fish are a significant concern, particularly in the Xe Bangfai area, where opisthorchis infection is of considerable public health significance.

5.4.4 Transportation
Roads and highways have the potential to cause direct injuries and illness and induce and facilitate human and animal migration in ways that amplify disease transmission. Transportation and health linkages include:

- road/injuries to drivers, pedestrians, cyclists from increased traffic loads, poor driving practices, poor vehicle and road maintenance, and road erosion;
- water and land pollution from unsound vehicle maintenance, surface water runoff, poor disposal practices (litter, oil, batteries, etc.);
- enhanced production of vector habitat from poor disposal practices, tires, construction debris, etc.;
- air pollution from direct vehicle emissions and road dust;
- spread of STIs, including HIV/AIDS due to increased interaction between high and low risk groups (e.g. truck-drivers and villagers);
- noise pollution; and
- transport of potentially hazardous materials with unplanned spills and/or releases.
5.4.5 Communications, information and transmission line distribution

The physical structures required for communications/information and transmission line distribution can be associated with multiple impacts. These include:

- accidents and injuries associated with construction;
- labour camp issues associated with construction;
- vector-borne disease issues surrounding construction (e.g. digging for pole placement, etc.); and
- social/societal ramifications, positive and negative, of mass media access through television and radio.

5.4.6 Environmental Health Areas

A further level of detailed investigation was performed by creating nine broadly defined *environmental health areas* that could be reasonably linked to the major sectors. The eleven environmental health areas are:

- Respiratory disease: including but not exclusive to ARIs (bacterial and viral), pneumonias, TB.
- Vector-related disease, including but not exclusive to malaria, typhus, dengue.
- Sexually Transmitted Infections (STIs): including but not exclusive to HIV/AIDS, genital ulcer disease, syphilis, gonorrhea, Chlamydia, hepatitis B;
- Soil and Water borne disease: including but not exclusive to soil transmitted helminths (STH), leptospirosis, schistosomiasis, melioidosis, cholera, water quality.
- Food and nutrition related issues: including but not exclusive to stunting, wasting, micronutrient diseases, changes in agricultural practices, gastroenteritis (bacterial and viral); opisthorchis infection, and food safety.
- Accidents/injuries: including but not exclusive to traffic and road related, construction (home and project related) and drowning.
- Exposure to potentially hazardous materials: including but not exclusive to pesticides, inorganic and organic fertilizers, road dusts, air pollution (indoor and outdoor related to vehicles, cooking, heating or other forms of combustion/incineration), landfill refuse or incineration ash, any other project related solvents, paints, oils or cleaning agents, etc.
- Psychosocial: including but not exclusive to relocation, violence, security concerns, substance abuse (drug, alcohol, smoking), depression and communal social cohesion.
- Cultural Health Practices: including but not exclusive to the role of traditional medical providers, indigenous medicines and unique cultural or ethnic health practices.

5.5 Stakeholder Identification and Consultation

Overall, public consultation and participation has played a significant role in the planning and pilot implementation of the SDP, including considerations of public health. We applaud the recent efforts made by WHO to launch HIA as a general knowledge area in Lao PDR. Introducing this method has been the subject of two WHO sponsored courses in March 2003 and October/November 2003 for relevant health officials and others. During the WHO courses the NT2 project was a specific topic of discussion (March 2003) and a previously completed water resource project (Nam Mang 3 dam) was used as a case study in the October/November 2003 course. The NT2 HIA has been a collaborative effort with Lao PDR government officials from the MOH (National Center for Environmental Health and Water Supply), the Resettlement Management Unit (RMU) and the Prime Minister’s Office National Project Director for the NT2 Project. There has been consultation with relevant government and community stakeholders during the fieldwork for the present HIA, and external peer-review by technical specialists with HIA experience.
Chapter 5: Health Impact Assessment and Public Health Action Plan

5.6 Data Sources, Studies and Surveys (Background Health Statistics)

5.6.1 Approach

This HIA incorporates an analysis of various health and nutritional surveys that have been performed at the national, provincial, district and village level (cf. Annex 5-2) These studies vary across time, location and disease endpoint. Many of the studies were specifically commissioned by the Project in order to study significantly (potentially) impacted groups (e.g. people living in the resettlement area or along the Xe Bangfai), as well as mosquito vectors and snail intermediate hosts. Other studies are of large cross-sectional designs, measuring various disease prevalence rates. These studies were usually carried out in collaboration between the MOH of Lao PDR and international partners, such as WHO, World Bank, Japan International Cooperation Agency (JICA), Korea Association of Health Promotion (KAH), Faculty of Medicine at Chiang Mai University in Thailand, and Family Health International (FHI). In addition, there have been a number of papers published in the peer-reviewed international literature, which have been identified through computer-aided searches on the U.S. National Library of Medicine’s PubMed database, and have also been reviewed for the HIA. These published papers are cited, where appropriate, in the text. A listing, brief synopsis and appraisal of relevance to the Project of the major surveys, studies and sources are presented in the next section.

5.6.2 Background health data

Overview of national health indicators

Table 5-4 summarizes selected demographic, economic and health indicators for Lao PDR as of 2001/2002. These data were assembled from the latest World Health Report (WHO, 2003b), World Urbanization Prospects (United Nations, 2002), and other relevant in-country and Project-related documents that were made available to the HIA team. Detailed ethnicity data for those populations in the Project areas are available in both the overall Social Development Plan (SDP) and the Ethnic Minority Development Plan (EMDP). Ethnic distribution across the major Project areas is also presented in a series of maps that are available in the EMDP.

Table 5-4: Selected Demographic, Economic and Health Indicators in the Early 2000s.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Lao PDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface (in km²)</td>
<td>236,800</td>
</tr>
<tr>
<td>Gross domestic product (GDP) per capita in 2000 (constant 1995 US$)</td>
<td>350</td>
</tr>
<tr>
<td>Total population in 2002 (in 1,000)</td>
<td>5,529</td>
</tr>
<tr>
<td>Rural (%)</td>
<td>80.3</td>
</tr>
<tr>
<td>Urban (%)</td>
<td>19.7</td>
</tr>
<tr>
<td>Population density (people/km²)</td>
<td>23.3</td>
</tr>
<tr>
<td>Annual population growth rate 1992-2002 (%)</td>
<td>2.4</td>
</tr>
<tr>
<td>Life expectancy at birth (years)</td>
<td>55.1</td>
</tr>
<tr>
<td>Males</td>
<td>54.1</td>
</tr>
<tr>
<td>Females</td>
<td>56.2</td>
</tr>
<tr>
<td>Probability of dying under age 5 years (per 1,000)</td>
<td>131-146</td>
</tr>
<tr>
<td>Probability of dying between ages 15 and 60 years (per 1,000)</td>
<td>306-338</td>
</tr>
</tbody>
</table>


Table 5-5 highlights selected national health accounts indicators for Lao PDR in the year 2001. Note that on average, the total per capita expenditure on health in 2001 was as low as US$ 10, accounting for only 3.1% of the country’s GDP. The JICA 2002 Study also reported that the Lao government’s expenditure on health varied markedly: by the mid1980’s it was 4-5%, falling to 3-4% in 1992-1994, and dipping to less than 2% during the Asian financial crisis. Out-of-pocket expenditure was found to account for more than half of a household’s health budget, most of this going to purchasing drugs from private pharmacies.
Table 5-5: Selected National Health Accounts Indicators of Lao PDR in 2001.

<table>
<thead>
<tr>
<th>National health accounts (in the year 2001)</th>
<th>Lao PDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditure on health (% of GDP)</td>
<td>3.1</td>
</tr>
<tr>
<td>Per capita total expenditure on health at average exchange rate (US$)</td>
<td>10</td>
</tr>
<tr>
<td>Per capita total expenditure on health at international dollar rate (US$)</td>
<td>51</td>
</tr>
<tr>
<td>Per capita government expenditure on health at average exchange rate (US$)</td>
<td>6</td>
</tr>
<tr>
<td>Per capita government expenditure on health at international dollar rate (US$)</td>
<td>29</td>
</tr>
<tr>
<td>Private expenditure on health (% of total expenditure on health)</td>
<td>44.5</td>
</tr>
<tr>
<td>General government expenditure on health (% of total expenditure on health)</td>
<td>55.5</td>
</tr>
<tr>
<td>General government expenditure on health (% of total general government expenditure)</td>
<td>8.7</td>
</tr>
<tr>
<td>External resources for health (% of general government expenditure on health)</td>
<td>21.1</td>
</tr>
<tr>
<td>Out-of-pocket expenditure (% of total expenditure on health)</td>
<td>80</td>
</tr>
</tbody>
</table>


In the 2001 Lao PDR National Health Survey, the following major public health problems were identified: malaria, dengue, tuberculosis (TB), leprosy, acute respiratory infection (ARI), diarrhoea/gastro-enteritis, hepatitis, maternal/child emergencies, unexploded ordinances, traffic accidents, substance abuse, sexually-transmitted infections (STIs), smoking, and alcohol.

National health statistics from the MOH, as of the mid 1990s, are summarized in Table 5-6 (mortality rates) and Table 5-7 (number of cases). Malaria accounted for the highest mortality rate and a total of 73,831 cases were recorded in public health facilities. In terms of mortality, malaria was followed by pneumonia, meningitis and diarrhoea, whereas influenza, diarrhoea and pneumonia were important causes of morbidity (Kobayashi et al., 2004). In view of the country’s successful national malaria control programme it is reasonable to assume that malaria-attributable mortality and morbidity has been significantly reduced over the past decade (Kobayashi et al., 2004, Trung et al., 2004). This is summarized in more detail in Section 5.6.3.3.

Table 5-6: Leading Causes of Death in Lao PDR in the mid 1990s (Kobayashi et al., 2004).

<table>
<thead>
<tr>
<th>Cause of death</th>
<th>Mortality rate(per 100,0000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria</td>
<td>7.62</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>3.03</td>
</tr>
<tr>
<td>Meningitis</td>
<td>1.45</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>1.23</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>0.75</td>
</tr>
<tr>
<td>Accidents</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Table 5-7: Public Health Caseload in Lao PDR in the mid 1990s (Kobayashi et al., 2004).

<table>
<thead>
<tr>
<th>Cause of morbidity</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria</td>
<td>73,831</td>
</tr>
<tr>
<td>Influenza</td>
<td>24,110</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>19,699</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>15,962</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>7,781</td>
</tr>
<tr>
<td>Dysentery</td>
<td>7,010</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>2,711</td>
</tr>
<tr>
<td>Accidents</td>
<td>2,330</td>
</tr>
</tbody>
</table>

Against the background of malaria, acute respiratory infections and diarrhoea accounting for the majority of mortality and morbidity in Lao PDR in the mid 1990s, it is clear that symptoms such as fever, headache, cough, abdominal pain and watery diarrhoea were reported with the highest frequencies when
patients were interviewed about illness episodes over the past 2 weeks (Table 5-8). A recent 2003 study by the Mahosot Hospital in Vientiane (Mahosot Microbiology Review Issue No.3 November 2003) identified that half of the cases of unexplained fever (i.e., malaria was ruled out via direct smear examination) were due to typhus, i.e., acute murine typhus (32%), scrub typhus (18%), while 12% were due to leptospirosis.

Table 5-8: Leading Illness Causes Within The Last 2 Weeks, In Lao PDR In The Mid 1990s.

<table>
<thead>
<tr>
<th>Acute previous illness by symptoms</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>58</td>
</tr>
<tr>
<td>Cough</td>
<td>27</td>
</tr>
<tr>
<td>Headache</td>
<td>22</td>
</tr>
<tr>
<td>Body ache</td>
<td>14</td>
</tr>
<tr>
<td>Running nose</td>
<td>14</td>
</tr>
<tr>
<td>Stomach, abdominal and uterine pain</td>
<td>11</td>
</tr>
<tr>
<td>Watery diarrhoea</td>
<td>11</td>
</tr>
</tbody>
</table>

It is also important to highlight the major causes of injury and accident, as these are well-known risk factors that contribute significantly to the overall burden of ill-health, particularly in the developing world (Ezzati et al., 2002). Statistics for the Central region of Lao PDR in the mid 1990s showed that injuries and accidents related to road traffic was the dominant cause, accounting for 41% (Table 5.9). Hence, it is likely that the predicted increases in road traffic will further contribute to major losses of healthy life.

Table 5-9: Leading Causes of Injury/Accident in the Central Region of Lao PDR, as of 1996.

<table>
<thead>
<tr>
<th>Causes of injury/accident for those reporting an incident</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>41</td>
</tr>
<tr>
<td>Home</td>
<td>25</td>
</tr>
<tr>
<td>Work</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
</tr>
</tbody>
</table>

Overview of leading pathologies

Malaria

A comprehensive account of the epidemiology of malaria in Lao PDR and neighbouring countries comprising the greater Mekong subregion of Southeast Asia has been published as a supplement to the Southeast Asian Journal of Tropical Medicine and Public Health in 1999 (Singhasivanon, 1999). It presents national malaria databases for the years 1996-1998 and employs geographical information systems technology for mapping the total reported cases, confirmed cases, malaria incidence, and parasite species distribution. Particular emphasis is placed on the serious public health issue of drug resistant falciparum malaria, including data on population movements across international boarders as an important factor in the dispersal of the disease.

Here, we briefly summarize the key features of the epidemiology and control of malaria in Lao PDR, and the greater Mekong subregion of Southeast Asia. An important observation is the strong positive association between malaria case numbers and forested areas, as well as foothill settlements. In contrast, forest-free areas are characterised by relatively fewer malaria cases; in addition, there is a tendency that cultivated field areas are relatively free of malaria, e.g. the Mekong river delta. The predominant malaria parasite species in Lao PDR is *P. falciparum*, which in turn has important implications for understanding malaria-attributable morbidity and mortality. Regarding the mosquito vector distribution, three species are generally believed to play the key role in transmission, namely *Anopheles dirus*, *A. minimus* and *A. maculatus*. However, assemblage of recently conducted entomological surveys in different geographical areas of Southeast Asia revealed that more work is warranted to fully understand the species composition responsible for malaria transmission. For example, major ecological transformations (e.g. recent changes in land use from rice cultivation to shrimp farming in Vietnam) were probably a key factor that might
explain high observed densities of *A. sundaisus*, a typical brackish water breeder (Trung et al., 2004). Another potentially important observation recently made in central Lao PDR is the possible involvement of *A. nivipes*, a typical ricefield breeder, in malaria transmission (Kobayashi et al., 2000). The high rates of *P. falciparum* resistant strains to chloroquine, the current first-line antimalarial drug in Lao PDR, must be emphasised. Clearly, these findings call for informed decision-making, and an urgent need to shift to another more effective first line antimalarial, probably an artemisinin-based combination approach (Pillai et al., 2001, Mayxay et al., 2003). Finally, issues surrounding mis and over diagnosis of malaria are always a possibility since most fever is assumed to be and treated as malaria until proven otherwise. The previously discussed study of unexplained fever at Mahosot Hospital illustrates this observation.

However, as mentioned before, the national malaria control programme in Lao PDR, as well as neighbouring Vietnam and Cambodia, has been extremely successful in controlling malaria over the past years. Figure 5.1 shows the evolution of the slide positive rate in the Khammouane province. The success is largely explained by the rigorous implementation of ITNs, in combination with better access to antimalarial drugs (Trung et al., 2004).

**Khammouane Malaria Station**

![Image of Khammouane Malaria Station]

**Figure 5-1: Evolution of Slide Positivity Rate from 1990-2003 of Khammouane Province**

![Graph showing the evolution of slide positivity rate from 1990 to 2003 in Khammouane Province.]

**Intestinal parasites**

Over the course of two years, between May 2000 and June 2002, a national parasitological survey has been carried out in Lao PDR as a collaborative effort between the Korea Association of Health Promotion, the MOH of Lao PDR and the WHO. The objective was to investigate the epidemiological situation of intestinal parasite infection among school-age children. Overall, 29,846 schoolchildren, mostly aged 6-11 years, were enrolled from 317 schools in 79 districts scattered among all 17 provinces and the Vientiane Municipality. A single stool specimen was collected from each child, processed with the cellophane thick smear method and examined under a light microscope. The presence of helminth ova, namely *Ascaris lumbricoides*, hookworm, *Trichuris trichiura*, *O. viverrini*, *Taenia* spp. and *Hymenolepis* spp., was recorded for...
each parasite species separately. In addition, approximately 10% of the faecal samples were quantitatively
examined with the Kato-Katz technique (which can also detect *S. mekongi*), and 451 schoolchildren were
subjected to an anal swab, employing adhesive cellophane, for examination of *Enterobius vermicularis*. The
results of this study were recently published in the peer-reviewed international literature (Rim et al., 2003).
Table 5-10 summarizes the key findings of this large-scale cross-sectional survey, with data presented on
the national level, and the three provinces where the NT2 Project will be implemented.

Two aspects are worth highlighting. First, large variations of infection prevalences were not only observed
among provinces, but also among districts within provinces, and among schools within districts. Second, it
is interesting to compare these current Lao PDR national data with the recently presented global
epidemiological situation of soil-transmitted helminth infections, and drawing particular attention to South
Asia, and East Asia and the Pacific Islands (de Silva et al., 2003). While prevalences for *A. lumbricoides*
(34.9% versus 27% in South Asia and 36% in East Asia and the Pacific Islands) and *T. trichiura* (25.8% versus
20% in South Asia and 28% in East Asia and the Pacific Islands) were quite similar, the hookworm
prevalence in Lao PDR was considerably lower than in the larger sub-region (19.1% versus 29% in South
Asia and 26% in East Asia and the Pacific Islands).

Table 5-10: Schoolchild Helminth Prevalence Rates (%) in 3 Lao Provinces (2000-02).

<table>
<thead>
<tr>
<th>Parasite</th>
<th>Province</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Khammouane</td>
<td>Bolikhamxai</td>
</tr>
<tr>
<td><em>Ascaris lumbricoides</em></td>
<td>17.4</td>
<td>17.8</td>
</tr>
<tr>
<td><em>Trichuris trichiura</em></td>
<td>19.0</td>
<td>8.7</td>
</tr>
<tr>
<td><em>Hookworm</em></td>
<td>17.1</td>
<td>3.0</td>
</tr>
<tr>
<td><em>Opisthorchis viverrini</em></td>
<td>32.2</td>
<td>2.9</td>
</tr>
<tr>
<td><em>Taenia</em> spp.</td>
<td>1.2</td>
<td>0.2</td>
</tr>
<tr>
<td><em>Hymenolopsis</em> spp.</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td><em>Enterobius vermicularis</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Rim et al., 2003)

(Rim et al., 2003)

Table 5-11 summarizes the different infection intensities of the three soil-transmitted helminths (*A. lumbricoides*, *T. trichiura* and hookworm) and the food-borne trematode *O. viverrini* for the three provinces affected by the Project. Note that a light infection is defined as the presence of one or more ova on an entire cellophane thick smear; a moderate infection as 1-2 ova in each microscopic field of the cellophane thick smear; and a heavy infection as 5+ ova in each microscopic field of the cellophane thick smear. Intensity data are calculated such that the sum of the presented categories equal to 100%; however, this does not mean that everyone in the entire population is infected.

Table 5-11: Schoolchild Helminth Intensity Data (%) in 3 Lao Provinces (2000-02).

<table>
<thead>
<tr>
<th>Parasite</th>
<th>Province</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Khammouane</td>
</tr>
<tr>
<td><em>Ascaris lumbricoides</em></td>
<td></td>
<td>44.5</td>
</tr>
<tr>
<td>Light infections</td>
<td></td>
<td>28.4</td>
</tr>
<tr>
<td>Moderate infections</td>
<td></td>
<td>27.1</td>
</tr>
<tr>
<td>Heavy infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Trichuris trichiura</em></td>
<td></td>
<td>88.8</td>
</tr>
<tr>
<td>Light infections</td>
<td></td>
<td>11.2</td>
</tr>
<tr>
<td>Moderate infections</td>
<td></td>
<td>0.0</td>
</tr>
<tr>
<td>Heavy infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hookworm</em></td>
<td></td>
<td>85.8</td>
</tr>
<tr>
<td>Light infections</td>
<td></td>
<td>12.0</td>
</tr>
<tr>
<td>Moderate infections</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Heavy infections | 2.1 | 0.0 | 2.0
Opisthorchis viverrini

Light infections | 75.3 | 98.0 | 92.4
Moderate infections | 17.6 | 2.0 | 6.4
Heavy infections | 7.1 | 0.0 | 1.2

(Rim et al., 2003)

(161 from 451 children examined in 3 provinces and Vientiane Municipality were found positive)

It is widely acknowledged that an important focus of *S. mekongi* is located in a restricted area of the Mekong river basin, namely in the two districts of Khong and Mounlapamok that are part of the southern province of Champassak, south Lao PDR, as well as the northern part of neighbouring Cambodia (Doumenge et al., 1987). In the late 1960s, stool examination among schoolchildren living in this very southern part of Lao PDR revealed an infection prevalence of 30%. In 1989, stool specimens from more than 2,000 individuals were examined by the Kato-Katz technique. Microscopic analysis revealed an overall prevalence of 42.2%, ranging between 15.3% and 92.3% (Urbani et al., 2002). Consequently, a schistosomiasis control programme was initiated, which was primarily based on repeated administration of praziquantel (single oral dose of 40 mg/kg) to schoolchildren. In total, six rounds of chemotherapy were administered between 1989 and 1998. Programme monitoring showed that this approach was successful in reducing the overall prevalence of infection; at the end of the programme, an average of 2.1% was found in the Khong district, and only 0.4% in the Mounlapamok district (Urbani et al., 2002). However, the control programme failed to interrupt transmission, so that an estimated 60,000 people continued to be at risk of reinfection. In May 2003, only a few years after praziquantel-based chemotherapy has been ceased, the WHO, together with the MOH, has carried out an extensive survey with more than 5,000 individuals examined for *S. mekongi*, as well as other intestinal parasites. While the average prevalence of *S. mekongi* in Mounlapamok district continued to be low (21 positive cases among 3,104 people examined; 0.7%), an average prevalence of 22.3% was found in the Khong district (524/2,345). Here, the prevalence among the 62 villages enrolled in the study ranged between 0% and 47.2% (data kindly provided by Hanne Strandgaard). This extensive epidemiological survey revealed very high prevalences for *O. viverrini*, namely 51.6% in the Khong district and 47.1% in the district of Mounlapamok. These data illustrate that a resurgence of *S. mekongi* can occur if transmission is not interrupted. Therefore, the issue of outbound emigration, attracted by potential employment opportunities, from positive areas in the southern province to the Project area is considered in later sections.

**HIV/AIDS**

In 1997, the government initiated a limited HIV Sentinel Surveillance (HSS) programme in order to better understand the basic countrywide prevalence rate. A large-scale study was not completed; however, there were limited more focused efforts in specific target populations (Phimphachanh et al., 2000). By 1999, the decision was made to establish a second generation surveillance system to study both HIV-related risk behaviours and the prevalence of HIV and STIs. The results of these efforts are the two publications, “HIV Surveillance Survey and Sexually Transmitted Infection Periodic Prevalence Survey, Lao People’s Democratic Republic, 2001” and “Behavioral Surveillance Survey Lao People’s Democratic Republic, 2000-2001”. These studies will be presented in greater detail (cf. Annex 5-2 Background Data Source Material); however, the main focus of the discussion will be directed towards those factors that are relevant to the assessment of potential impacts from the NT2 Project.

The 2001 ‘HIV Surveillance Survey and Sexually Transmitted Infection Periodic Prevalence Survey’ (HSS and SPPS) targeted three populations:

- **Service women (SW)** – defined as any woman who worked in a small drink shop, nightclub or guesthouse and had direct contact with patrons. All SW do not necessarily sell sex. SW in the survey were not pre-screened to determine if they sold sex prior to study enrolments. Total sample size was 300.

- **Female factory workers (FFW)** – worked in the garment factories in Vientiane Municipality and lived in dormitories either on the factory grounds or in close proximity. Total sample size was 300.

- **Male long distance truck drivers (LDTD)** – included drivers and drivers’ assistants who drove both within the country and internationally. Total sample size was 300.
Only 3.5% of FFW reported current STI symptoms and only 5.7% within the last year. Among SWs, almost 21% reported a current STI symptom and approximately 39% had a symptom within the last year. Few of the LĐTĐs reported a current STI symptom and 11% had a symptom within the last year.

HIV or syphilis was not found in the FFWs. The prevalence of HIV among all SW was 0.9% and only 1.1% for those who reported selling sex. Syphilis prevalence was 0.2%; however, the prevalence of Chlamydia was 32% and gonococcal infection was 13.9%. For LĐTĐs, no HIV was detected and the prevalence of syphilis was 1.3%. Chlamydia was 9.3% and gonococcal infection was 1.3%.

Based on the full report, there are several observations relevant to the NT2 Project that can be drawn from the overall HSS and SPPS study:

- Relative to other countries, the HIV prevalence rate in Lao PDR is extremely low in all target groups surveyed. These results are in stark contrast to Sub-Saharan Africa, but also to Khmer (2.7), Thai (1.8), and Vietnamese (0.3) prevalence rates: Lao PDR prevalence was just 0.1% in 2001 (UNAIDS 2002)
- The rates of ulcerative STIs were low in all populations surveyed. Ulcerative STIs are well established as potent cofactors for HIV transmission;
- Compared to commercial sex workers in many other countries, Lao SW who reported selling sex had a relatively low frequency of partner change (average 19.5 clients over the previous 12 months) and relatively high rates (60%) of consistent condom use with clients;
- Chlamydia rates were high in all populations surveyed and appeared to be associated with sex in general rather than commercial sex in particular;
- While LĐTĐs had low ulcerative STI rates and were HIV seronegative, they nevertheless exhibited high levels of reported risk behaviours;
- Treatment of symptoms or STIs is not typically from qualified medical practitioners and this is felt to be a major contributor to the high rates of STIs observed in the survey.

The five most populous provinces, along Route 13, the main land transportation route of Lao PDR were selected for the study of the behavioural surveillance survey. Two study provinces, namely Khammouane and Savannakhet, are immediately relevant to the NT2 Project, particularly the former. Target groups included male and female cross border seasonal migrant workers (SMWs), female factory workers (FFW), service women (SW), long distance truck drivers (LĐTĐs), police and military. While there are no “Khammouane truck drivers,” this is probably not significant since the Project will potentially draw drivers from the length of the Route 13 corridor.

Based on the full report, there are several observations that are quite relevant to the NT2 Project that can be drawn from the overall behavioural surveillance survey. They include:

- Paying for sex in the past year: LĐTĐ (33%) and police (25%).
- Partner change rate within the last year (three or more): LĐTĐ (21%) and police (13%).
- Any commercial sex partner within the last year: military (12%) and male MW (6%).
- Condom usage: Fewer than one third of all men consistently used condoms with non-regular partners; however, usage rates with a commercial partner (defined as those who had sex in exchange for money) were higher for LĐTĐ (75%).
- Sex rates with a non-regular partner in the past 12 months: police (29%), LĐTĐ (20%), military (18%), and migrants (12%).
- Partner change rate SW: majority of the service women had no more than 5 partners per year.
- Condom usage SW: with commercial partners (73%); with non-regular partners (44%).
- HIV education or services within the last 6 months: military (65%); police (55%); SW (46%); LĐTĐ (43%); factory workers (29%); male SMW (22%); female SMW (15%).
The condom usage rates appear to be quite high; however, these data are self-reported and particularly high primarily for the commercial partner interaction. Whether similarly high condom usage rates could be expected in the Project area is unknown. Table 5-12 presents a more extensive summary of the knowledge, attitudes, practice and belief (KAPB) data for the different target groups:

**Table 5-12: Various Target Groups’ Knowledge, Attitudes and Practices on STI/HIV-AIDS**

<table>
<thead>
<tr>
<th>Target group</th>
<th>Identify 3 means for reducing HIV risk (%)</th>
<th>No misconceptions about AIDS* (%)</th>
<th>Received HIV information in last 6 months (%)</th>
<th>Report STI symptom last 12 months (%)</th>
<th>Ever had voluntary HIV test and know result (%)</th>
<th>Know someone living with or died from HIV (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>LDTD</td>
<td>74</td>
<td>33</td>
<td>43</td>
<td>1.9</td>
<td>9.8</td>
</tr>
<tr>
<td></td>
<td>Military</td>
<td>75</td>
<td>48</td>
<td>65</td>
<td>2.5</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>Police</td>
<td>75</td>
<td>57</td>
<td>55</td>
<td>5</td>
<td>13.2</td>
</tr>
<tr>
<td></td>
<td>SMW</td>
<td>62</td>
<td>23</td>
<td>22</td>
<td>1.3</td>
<td>6.9</td>
</tr>
<tr>
<td>Female</td>
<td>SW</td>
<td>59</td>
<td>24</td>
<td>15</td>
<td>3.9</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>FW</td>
<td>73</td>
<td>21</td>
<td>29</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>SMW</td>
<td>65</td>
<td>23</td>
<td>46</td>
<td>21.1</td>
<td>19.7</td>
</tr>
</tbody>
</table>

The two HIV/AIDS surveys are recent and highly relevant for use in the NT2 Project HIA. At present, HIV/AIDS rates are extremely low in all targeted groups particularly LDTD and SWs. Some of the critical factors known to impact transmission and amplification of the epidemic, i.e. partner change rates and degree of ulcerative genital disease, are quite low, while condom usage for commercial sex partner interactions is relatively high. The KAPB data indicates that a substantial opportunity for targeted education for different risk groups is present. Aggressive surveillance and treatment for the curable STIs would also be a highly critical activity, particularly if diagnostic and treatment capability were enhanced within the potential impact areas of concern (PIA). An additional issue is the potential differences in KAPB between different ethnic groups, i.e., more “behaviourally conservative” Lao Loum versus more “liberal” Lao Suung and Lao Theung. There may be marked differences in attitudes toward sexual intercourse and partner change rates as a function of ethnicity; however, this area has not been extensively investigated (Personal communication Dr. Peter Odermatt, March 2004).

**Tuberculosis**

In Lao PDR, the diagnosis is of tuberculosis (TB) is made by a combination of clinical presentation and smear positive microscopy using the Ziehl-Neelson method. At present, diagnoses are not culture confirmed. Studies in the literature have demonstrated that 5,000-10,000 bacilli/ml are required for a positive smear detection. In contrast, cultures are positive at extremely low bacilli levels of 10-100 organisms. Not surprisingly, smears are positive in 50-80% of patients with active pulmonary TB (American Thoracic Society, 2000). Despite these limitations, TB is still a commonly made diagnosis and is considered to be one of the more important causes of morbidity and mortality in Lao PDR in general (See Tables 5-6 and 5-7), and the districts affected by the Project (Table 5-15) in particular. Given the disparity in sensitivity between smear and culture, it is highly likely that TB is currently significantly under diagnosed in Laos PDR. Thus, the actual burden of TB is probably significantly higher, particularly in remote rural areas where diagnostic equipment may not be readily available.

In many developing countries, TB is strongly associated with HIV/AIDS and is frequently the leading cause of death for AIDS patients. While the current burden of HIV/AIDS in Lao PDR is quite low, as previously discussed in Section 5.6.3.5, this situation could change if the epidemic accelerates. A rapid rise in HIV/AIDS cases would significantly and adversely impact the overall TB situation in Lao PDR.

Overall, TB should be considered a critical disease that is highly likely to be under diagnosed and managed. During the HIA study team’s visits to several Project area district hospitals several observations were made: (i) basic smear microscopy was available and in use; (ii) smear positive TB was a frequent diagnosis, up to 20% of all smears were positive; (iii) an active case finding/control programme (which is
not formally part of DOTS) was not functioning; and 4(iv) DOTS programmes appeared to be available in the hospitals visited; however, this is probably not indicative of the overall status of DOTS across the entire Project area (Personal communication Dr. Peter Odermatt, March 2004).

Dengue
Dengue, both hemorrhagic and non-hemorrhagic forms, is frequently diagnosed in Lao PDR. In the Project area, dengue is considered to be a critical health issue in the lower Xe Bangfai region, particularly during the rainy season during periods of when flooding occurs. In fact, the lower Xe Bangfai has some of the highest reported rates of dengue morbidity and mortality in Lao PDR. The accuracy of reported dengue cases is difficult to ascertain since reports are based on clinical presentation without laboratory confirmation. Nevertheless, the current burden of seasonal dengue in the affected Project regions is considered highly significant. The role of water jars is also potentially related to dengue fever rates. In Savannakhet province, water jars are now produced and sold by a local company and are implicated in the rise of dengue rates in rural districts (Personal communication Dr. Peter Odermatt, March 2004).

Typhus
Typhus, both murine and scrub forms, are significantly under reported causes of fever. In a recent study at Mahosot Hospital in Vientiane, scrub and murine typhus were found to be significant causes of “Unexplained Fever.” An individual was considered to have an “unexplained fever” if they were blood culture negative and malaria smear negative. In a recent study of 364 adults with unexplained fever, 32% demonstrated serological evidence of murine typhus, 18% scrub typhus and 12% leptospirosis. Therefore, given the frequent presentation of fever, it is reasonable to assume that there is a substantial burden of typhus that is currently unrecognised and unreported.

This overview of the leading pathologies in the area highlights the need for their sustained epidemiological monitoring. While baseline data are available on malaria, on intestinal parasites and on TB (NTPC Socio-economic Household Survey 2001), additional studies are needed a/o on dengue and on typhus.

5.6.3 District health data

Selected health indicators
Tables 5-13 to 5-16 summarize key baseline data for the eight districts that will be affected by the Project (6 districts in Khammouane province, and 1 district each in the provinces of Bolikhamxay and Savannakhet). These data were derived from (i) the 2003 World Bank survey tables (World Bank, 2004), (ii) detailed parasitological surveys conducted in March/April 1996 in numerous study villages throughout the Project area by a joint research team from Lao PDR and Thailand (Pholsena et al., 1997), and (iii) results from the HIA study team’s own rapid appraisal of health problems reported at district hospitals on the Nakai plateau and the Xe Bangfai area. As previously stated, detailed ethnicity population data within the defined Project zones are available in the EMDP. However, these data do not present an in-depth discussion on health knowledge, attitudes, practices and beliefs in function of ethnicity. This is a data gap that needs to be addressed, both in monitoring Project related cultural health practice impacts (see Section 5.7) and in producing culturally sensitive materials for Behaviour Change Communication.

Table 5-13: Infant Immunization Coverage in Potentially Affected Districts

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Population (x 10^3)</th>
<th>Immunization coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Khammouane</td>
<td>Nakai</td>
<td>9.3</td>
<td>9.6</td>
</tr>
<tr>
<td></td>
<td>Gnommalat</td>
<td>12.4</td>
<td>13.2</td>
</tr>
<tr>
<td></td>
<td>Mahaxai</td>
<td>14.8</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>Tahket</td>
<td>39.6</td>
<td>39.3</td>
</tr>
<tr>
<td></td>
<td>Nongbok</td>
<td>21.0</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>Xe Bangfai</td>
<td>11.4</td>
<td>11.9</td>
</tr>
<tr>
<td>Bolikhamxai</td>
<td>Khamkeut</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>Xaybuly</td>
<td>25.0</td>
<td>25.4</td>
</tr>
</tbody>
</table>

Table 5-14: Nr of Health Complaints Reported in 3 Project Districts in March/April 1996

<table>
<thead>
<tr>
<th>Complaint</th>
<th>District</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nakai</td>
<td>Gnommalat</td>
</tr>
<tr>
<td>Digestive</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Eyes</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Ears</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Skin</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Genitourinary</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Nervous System</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Respiratory</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Cardiovascular and circulation</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

(Source: Pholsena et al., 1997).

Table 5-15: Main Sickness Cause Ranking in 3 District Hospitals in 1995 and 2003

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Gastro-intestinal complaints</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Acute respiratory infection</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>ND</td>
<td>3</td>
<td>ND</td>
<td>5</td>
<td>ND</td>
<td>5</td>
</tr>
<tr>
<td>Accidents and injuries</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Mental illness</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>6</td>
<td>4</td>
<td>ND</td>
</tr>
</tbody>
</table>

(Source: Pholsena et al., 1997 and HIA study team’s own appraisal in February 2004). ND: not determined

Malaria

Table 5.23 shows the slide positivity rate for the six districts in the Khammouane province that will be affected by the Project, for the years 2002 and 2003. These low rates confirm the successful implementation of malaria control programmes in Lao PDR, mainly achieved through the rigorous administration of ITNs and major improvements in access to antimalarial drugs (e.g. through drug revolving funds implemented at the village level).

Table 5-16: Slide Positive Rate and Malaria-related Death in Khammouane (2002-03)

<table>
<thead>
<tr>
<th>District</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Slide positivity rate</td>
<td>Death</td>
</tr>
<tr>
<td>Nakai</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Gnommalat</td>
<td>4.2</td>
<td>1</td>
</tr>
<tr>
<td>Mahaxai</td>
<td>15.4</td>
<td>0</td>
</tr>
<tr>
<td>Tahket</td>
<td>7.3</td>
<td>0</td>
</tr>
<tr>
<td>Nongbok</td>
<td>1.2</td>
<td>0</td>
</tr>
<tr>
<td>Xe Bangfai</td>
<td>10.9</td>
<td>0</td>
</tr>
</tbody>
</table>

(data kindly provided by the Khammouane Malaria Station)

Intestinal parasites

Figures 5.2 and 5.3 show age-prevalence curves for *O. viverrini* infections and infections with the three soil-transmitted helminths, namely *A. lumbricoides*, *T. trichiura* and hookworms. These data were derived from
the series of cross-sectional, community-based parasitological surveys carried out in multiple villages in four of the Project districts in March/April 1996. The Kato-Katz thick smear method was employed on faecal samples and diagnosis was confirmed by detection of parasite ova under a microscope. Data from different villages in a given district were pooled; hence they are aggregated on the district level. The Kato-Katz thick smear method also facilitates diagnosis of *S. mekongi*, however, not a single case was found.

It is important to note that the overall prevalence rates of *O. viverrini* were low in Nakai and Khamkeut, but very high in the districts of Gnommalat and Mahaxai. Interestingly, the prevalence of infections increased with age in the latter two districts, which strongly suggests that the habit of eating raw or undercooked fish is continued throughout the life-course. The possibility of ethnicity as a significant explanatory factor must also be considered since typically Lao Suung and Lao Theung do not eat uncooked fish (Personal communication Dr. Peter Odermatt, March 2004). Prevalence rates, as a function of ethnicity, were not presented in the study.

With regard to soil-transmitted helminths, the highest prevalences were found for *A. lumbricoides*, followed by *T. trichiura* and hookworm, similar to more recent findings at the national level (see Table 5.14) (Rim et al., 2003). Young children showed the highest prevalence rates of *A. lumbricoides*, whereas *T. trichiura* and hookworm showed similar prevalences across age.

![Figure 5-2: Age-specific prevalence of O. viverrini](Source: Pholsena et al., 1997)

NB: Nakai (●), Gnommalat (■), Mahaxai (▲), Khamkeut (○)
Table 5-17 summarizes the latest data on intestinal parasites among schoolchildren for 5 of the project districts in the Khammouane province. These data were generated during the large-scale 2000-2002 parasitological survey carried out in Lao PDR (Rim et al., 2003).
Table 5-17: Schoolchild Helminths Prevalence (%) in 5 Khammouane Districts (00-02)

<table>
<thead>
<tr>
<th>District</th>
<th>Ascaris lumbricoides</th>
<th>Trichuris trichiura</th>
<th>Hookworm</th>
<th>Opistorchis viverrini</th>
<th>Taenia spp.</th>
<th>Hymenolopsis spp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gnommalat</td>
<td>25.3</td>
<td>42.9</td>
<td>11.6</td>
<td>36.4</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Mahaxai</td>
<td>6.8</td>
<td>21.1</td>
<td>3.7</td>
<td>43.7</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Tahket</td>
<td>18.1</td>
<td>15.2</td>
<td>13.5</td>
<td>26.3</td>
<td>1.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Nongbok</td>
<td>2.3</td>
<td>1.5</td>
<td>25.1</td>
<td>24.7</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Xe Bangfai</td>
<td>3.6</td>
<td>3.2</td>
<td>12.5</td>
<td>40.0</td>
<td>2.9</td>
<td>0.0</td>
</tr>
</tbody>
</table>

(Rim et al., 2003)

5.6.4 Baseline household health data from Project specific surveys

The selected data presented in the following sections are derived from recent in-depth households surveys conducted by the Project on the Nakai plateau (more than 5,000 individuals from over 800 households enrolled) and the Xe Bangfai area (more than 10,000 individuals enrolled). The data presented below are based on the original forms that were entered electronically, but for which analytic results are not expected before December 2004. The household survey data in this section were extracted by the HIA Team Leader (Dr. J. Utzinger) for presentation and analysis in this HIA section.

Water supply and sanitation

Tables 5-18 to 5-20 summarize the key findings regarding access to currently utilized water sources, the type of water collected and the availability of sanitary facilities.

Table 5-18: Walking Time to Nearest Water Source in Study Zones (all figures in %).

<table>
<thead>
<tr>
<th>Time to water source (minutes)</th>
<th>Nakai Plateau</th>
<th>Nam Kathang</th>
<th>Xe Bangfai</th>
<th>National average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upstream</td>
<td>Upper</td>
<td>Middle</td>
<td>Lower</td>
</tr>
<tr>
<td>&lt; 5</td>
<td>17.6</td>
<td>23.8</td>
<td>12.5</td>
<td>10.0</td>
</tr>
<tr>
<td>5-10</td>
<td>67.3</td>
<td>32.8</td>
<td>75.0</td>
<td>54.6</td>
</tr>
<tr>
<td>&gt; 10</td>
<td>15.1</td>
<td>43.4</td>
<td>12.5</td>
<td>35.4</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 5-19: Main Source of Drinking Water in the Different Study Zones (all figures in %).

<table>
<thead>
<tr>
<th>Source of water</th>
<th>Nakai Plateau</th>
<th>Nam Kathang</th>
<th>Xe Bangfai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pond, river or stream</td>
<td>56.9</td>
<td>18.1</td>
<td>65.9</td>
</tr>
<tr>
<td>Dug well or spring</td>
<td>34.3</td>
<td>20.1</td>
<td>30.7</td>
</tr>
<tr>
<td>Unprotected</td>
<td>1.1</td>
<td>7.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Protected</td>
<td>5.0</td>
<td>11.6</td>
<td>20.9</td>
</tr>
<tr>
<td>Tube-well/borehole with pump</td>
<td>0.0</td>
<td>33.4</td>
<td>30.7</td>
</tr>
<tr>
<td>Rainwater collection</td>
<td>2.5</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Piped tap</td>
<td>2.5</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Public tap</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Tanker truck, vendor, bottled water</td>
<td>0.1</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Underground water</td>
<td>0.0</td>
<td>16.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>16.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 5-20: Sanitary Facilities by Type (all figures in %).

<table>
<thead>
<tr>
<th>Type of latrine</th>
<th>Nakai Plateau</th>
<th>Nam Kathang</th>
<th>Xe Bangfai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
In the Resettlement Area, only one in ten households have a toilet. In the Regional Area, numbers increase as one moves closer to the cities, from one in five to three in five. On average, pour flush latrines seem most popular.

**Main complaints**

In Table 5-21 we present the main complaints of those study participants who had an acute illness during the two weeks preceding the interview. Note that many individuals complained of multiple symptoms, which explains that the total sum by far exceeds 100%.

**Table 5-21: Symptoms Reported by those Experiencing Acute Illness (all figures in %).**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Nakai Plateau (n=409)</th>
<th>Nam Kathang (n=132)</th>
<th>Xe Bangfai (n=378)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upstream of upper (n=23)</td>
<td>Upper (n=81)</td>
<td>Middle (n=85)</td>
</tr>
<tr>
<td>Fever</td>
<td>70.4</td>
<td>28.8</td>
<td>91.3</td>
</tr>
<tr>
<td>Headache</td>
<td>42.5</td>
<td>30.3</td>
<td>60.9</td>
</tr>
<tr>
<td>Joints pain</td>
<td>10.0</td>
<td>6.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Shivers/chills</td>
<td>18.1</td>
<td>3.8</td>
<td>4.3</td>
</tr>
<tr>
<td>Cough</td>
<td>15.9</td>
<td>15.9</td>
<td>39.1</td>
</tr>
<tr>
<td>Cough with phlegm</td>
<td>31.8</td>
<td>6.1</td>
<td>4.3</td>
</tr>
<tr>
<td>Cough with blood</td>
<td>1.7</td>
<td>0.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Whooping cough</td>
<td>1.7</td>
<td>2.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Chest pain</td>
<td>10.8</td>
<td>8.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Running nose/sneezing</td>
<td>25.9</td>
<td>8.3</td>
<td>47.8</td>
</tr>
<tr>
<td>Sore throat</td>
<td>12.5</td>
<td>2.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Difficulty/pain in swallowing</td>
<td>2.9</td>
<td>0.8</td>
<td>13.0</td>
</tr>
<tr>
<td>Difficulty/abnormal breathing</td>
<td>4.6</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Watery diarrhoea</td>
<td>5.1</td>
<td>3.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Diarrhoea with blood/mucus</td>
<td>1.5</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Body ache/body pain</td>
<td>33.3</td>
<td>18.2</td>
<td>34.8</td>
</tr>
<tr>
<td>Vomiting</td>
<td>13.0</td>
<td>7.6</td>
<td>8.7</td>
</tr>
<tr>
<td>Weakness/malaise</td>
<td>0.7</td>
<td>9.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Rash</td>
<td>5.4</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Stomach/abdominal pain</td>
<td>0.2</td>
<td>13.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Pain in passing urine</td>
<td>0.7</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Backache</td>
<td>0.0</td>
<td>2.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Blood in urine/black urine</td>
<td>70.4</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Unknown</td>
<td>42.5</td>
<td>0.0</td>
<td>4.3</td>
</tr>
</tbody>
</table>

**Malaria**

Table 5-22 convincingly shows that a very high proportion of the population interviewed currently sleeps under a bed net, which is one of the key strategies of the national malaria control programme in Lao PDR.
Table 5-22: Sleeping Under a Bed net the day before the Interview (all figures in %).

<table>
<thead>
<tr>
<th>Sleeping under a bed net</th>
<th>Nakai Plateau</th>
<th>Nam Kathang</th>
<th>Xe Bangfai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upstream of upper</td>
<td>Upper</td>
<td>Middle</td>
</tr>
<tr>
<td>Yes</td>
<td>78.5</td>
<td>90.7</td>
<td>99.8</td>
</tr>
<tr>
<td>No</td>
<td>18.2</td>
<td>1.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3.3</td>
<td>7.9</td>
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<tr>
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<td>100.0</td>
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<td>100.0</td>
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</table>

### 5.7 HEALTH ISSUES, AND IMPACTS ANALYSIS

#### 5.7.1 Identification of Health Issues

The process used to identify and assess the potential impacts on health involved:

- an in-depth review of available national, regional, provincial and district health data;
- analysis and synthesis of Project study area specific baseline health and nutritional surveys;
- comparison of study area data to national, regional and provincial and district health data;
- field survey visit by the HIA study team; and
- consultation with relevant health stakeholders, particularly MOH officials at the national, district, provincial and local level.

#### 5.7.2 Assessment Process

Not all of the potential issues in the HIA are clinical medical problems. Potential impacts can also relate to access to health care facilities, socio-economic factors and cultural practices, e.g., traditional medical providers, indigenous drugs and practices. Hence, a purely biomedical model will not necessarily capture the full range of potential impacts. It is apparent that some important health issues are health determinants that relate to the social and psychological environment. Health determinants are factors that are known or postulated to be causally related to health status (WHO, 2000). Typically, there has been a tendency to focus on the biophysical environment via a life-cycle model of disease while downplaying key social determinants such as economic status, cultural practices and psychological effects associated with cultural disruption, most notably resettlement (WHO, 2000). The NT2 HIA has tried to incorporate critical psychosocial and culturally important health determinants into the overall assessment of potential impacts.

The NT2 Project has multiple factors that make the efficient assessment of impacts a complex undertaking:

- widespread geography involving multiple types of terrain and habitats;
- different types of receptor groups, e.g., construction workers, camp followers, resettlement villagers, etc., and special at risk subpopulations within these groups (e.g. children under the age of 5 years, pregnant women and elderly) distributed across time and space;
- timing issues, e.g. construction mobilization, actual construction, reservoir filling, operations, etc., associated with different phases of construction that impact different receptors and locations;
- seasonality considerations, i.e. rainy versus dry season, where there are potentially significant differences in agricultural/cultivation practices, water use and associated disease transmission dynamics;
- variability of existing health care infrastructure across different Project areas; and
- coordination and alignment with existing national disease control programmes and strategies (e.g. TB, HIV/AIDS and malaria).
While these factors can be separately listed and described, it must be understood that they are simultaneously present such that there are direct, indirect and cumulative interactions producing additivity, antagonism, synergy and even potentiation of effects or impacts. Given the size and magnitude of the overall Project, the potential “universe of outcomes” is virtually limitless. Therefore, in order to impose some type of rationale structure on this universe of outcomes, the HIA considered analysing impacts through three different filters.

1. Health issues as defined by WHO (WHO, 2000), namely: (i) communicable diseases, (ii) non-communicable diseases, (iii) accidents and injuries, (iv) malnutrition, (v) psychosocial effects, and (vi) social well-being.

2. Key sectors as defined by the World Bank (Listorti and Doumani, 2001), including: (i) housing and urban development, (ii) water, food and sanitation, (iii) transportation, communication and information access and associated linked environmental health areas. These include: respiratory diseases, vector-related diseases, sexually transmitted infections, water-borne diseases, accidents and injuries and exposures to potentially hazardous materials.

3. Disease or chemical specific agents of concern. These include malaria, dengue, soil-transmitted helminths (STH), acute respiratory infections (ARIs), opisthorchis infection, TB, STIs, HIV/AIDS, gastroenteritis (bacterial and viral), schistosomiasis, Japanese encephalitis (JE), leptospirosis, psychological disturbances, including substance abuse, malnutrition, trauma/accident related, air pollution (indoor and outdoor), pesticides, organic and inorganic fertilizers.

Clearly, there is overlap and redundancy across these three filters. In order to minimize redundancy, while capitalizing on the fact that many of the specific disease agents can be easily classified under broader headings (e.g. respiratory, vector-borne, etc.), the HIA has expanded and modified the World Bank environmental health approach by both increasing and broadening the linkage between sectors and broadly defined environmental health. The result of this effort was the creation of nine named environmental health areas:

1. Respiratory diseases, including but not exclusive to ARIs (bacterial and viral), pneumonias and TB.
2. Vector-related: including, but not exclusive to malaria, dengue, JE.
3. STIs: including, but not exclusive to HIV/AIDS, genital ulcer disease, syphilis, gonorrhoea, Chlamydia, hepatitis B.
4. Soil- and water-borne: including, but not exclusive to STHs, leptospirosis, schistosomiasis, melioidosis and cholera.
5. Food and nutrition: including, but not exclusive to stunting, wasting, micronutrient deficiencies, changes in agricultural practices, gastroenteritis (bacterial and viral); opisthorchis infection.
6. Accidents and injuries: including, but not exclusive to traffic and road related, construction (home and project related) and drowning.
7. Exposure to potentially hazardous materials: including, but not exclusive to insecticides/pesticides, inorganic and organic fertilizers, road dusts, air pollution (indoor and outdoor, related to cooking, traffic, or other forms of combustion/incineration), landfill refuse or incineration ash, any other Project-related solvents, paints, oils or cleaning agents, etc.
8. Psychosocial: including, but not exclusive to violence, security concerns, substance abuse (i.e. drug, alcohol, smoking), depression and communal social cohesion, and traditional medicine providers and practices.
9. Cultural health practices: use of traditional medicine providers, indigenous drugs and behavioral practices, e.g. post-partum “lying by the fire (yuu fai)”.

An overall health impact assessment table (HIAT) for each of the 8 defined potential impact area of concern (PIA) has been constructed. These PIAs specific tables show the nine environmental health areas on the Y-axis with project timing (construction and operation), population age groups affected, and impact levels on the X-axis.

Overall ratings were given by an expert panel with each member of the HIA team performing an independent rating, followed by discussion and consensus agreement of an overall rating. In addition, input from key stakeholders and external reviewers was also considered and included. This type of
exercise invariably and unavoidably involves subjective professional judgment; hence, there is always room for debate and disagreement over the relative ranking of impacts. Therefore, the impact ratings should be considered in broad terms across the Project.

The health impacts analyses are made according to the nine environmental health areas of each PIA.

5.7.3 Plateau Resettlement Area (PIA #1)

**Overall assessment:** High impact, multiple sectors.

**Risk profiling:** Table 5-23.

**Short description:**

The most significant potential negative impact relates to the changing agricultural practices/livelihoods, while the most significant enhanced impact relates to multiple sectoral improvements with consequent health benefits. There will be multiple psychosocial, cultural health impacts, which could be significant (adverse) and/or beneficial.

During the initial construction phases of the Project, impacts in all nine environmental health areas will be significant. However, these impacts will be a mixture of positive and negative effects. There should be substantial improvement across all four sub-sectors (housing and urban development; water, food and sanitation; transportation; and communication and information access). The sectoral improvements should directly affect burdens of disease across many of the environmental health areas (respiratory; vector-borne; soil/water; and potentially food nutrition). These positive impacts can only be achieved by significant efforts in environmental areas (health infrastructure), as well as programme management; hence, a detailed implementation plan is essential as described in the SDP. In addition, establishment of a rigorous system for monitoring and surveillance of health and social well-being is essential.

The potential for negative impacts clearly exists, particularly related to environmental health areas #3 (STIs) and #5-7 (accidents, exposures to hazardous materials, nutrition/food). Interaction and mixing with construction workers and or camp followers could adversely affect STI and HIV/AIDS transmission rates. Psychosocial effects of relocation could be significant and more difficult to manage than currently perceived (Lumsden, 1993, Desjarlais et al., 1995). As part of the relocation, there will be required changes in agricultural cultivation practices and livelihoods. These changes may have serious impacts on food production and subsequent nutritional and micro-nutritional effects. Initially, given the tremendous effort currently underway in this area (per SDP) we expect improvement; however, it is unknown if the proposed change in production/cultivation habits will either work in the intermediate term or be truly sustainable in the long term.

Given the poor soils on the plateau, increased use of organic and inorganic fertilizers are inevitable. Similarly, the use of pesticides will probably increase. The increased use of fertilizers can have significant short- and long-term impacts on water quality by increasing nitrogen loads via both surface water runoff and discharge to the reservoir and movement into groundwater. Increased levels of nitrogen in drinking water have been associated with significant outbreaks of methemaglobinemia in infants and young children.

During the full construction phase there will be potentially significant changes (particularly in the dry season) on air pollution levels from both vehicle emissions and road dusts with potential respiratory disease impacts. At present, families in the pilot village are infrequently (if at all) cooking indoors. Whether increased dust and noise levels will in any way change this practice is unknown. Road traffic will increase with subsequent increased risk of accident and injury. If there is improvement, as projected in the SDP, across major sectors then overall vector borne (#2) and soil- and water borne (#4) diseases should significantly decrease. There is a concern that rodent related diseases (e.g., leptospirosis, typhus) could increase during active construction due to changes in local habitat; however, these potential impacts are felt to be low based on the current experience in the pilot resettlement village (see SDP Vol3 /Appendix F). Japanese encephalitis (JE) has not been documented and is not expected. Nevertheless, full
Chapter 5: Health Impact Assessment and Public Health Action Plan

implementation of environmental management plans in addition to active monitoring and surveillance are required for vector-borne diseases.

During the early operations and reservoir filling stage, the possibility of changes in vector related diseases exists. In the resettlement area, villages will not be in close proximity to forest cover so that contact with the major malaria vectors will be lessened; however, a change in the vector mix (e.g., *Anopheles nivipes* versus *An. minimus, dirus and maculatus*) cannot be discounted since villages will be extremely close to the reservoir. This issue was discussed in Section 5.6 and the possibility also exists for other downstream areas.

Regardless of Project phase, the potential for significant disruption in the current communal political, social, cultural and economic relationships across the plateau exists; however, this issue is covered in other sections of the SDP. If there are substantial and unmanaged disruptions to community cohesion then significant psychosocial impacts including increases in substance abuse, violence and other psychiatric disorders are possible. Impacts to the traditional medicine practitioners are already ongoing and related to the RDF. The RDF appears to have significantly altered the reliance on and utilization of traditional practitioners, with the notable exception of traditional birth attendants (TBA). These changes are currently unrelated to the Project but will probably accelerate with better delivery and access to medical care.

At the University Hospital Mahosot in Vientiane, 16% of all admissions between 1990 and 2000 were due to infant Beri-Beri (personal communication from Dr, Peter Odermatt, IFMT, February, 2004). The importance of this practice and the level of vitamin B1 deficiency in the Project area are unknown. Despite the negative potential impact, the current practice has many positive attributes, e.g., family cohesion, socialization, supportive role of the male spouse and other direct family relatives. The post-partum duration appears to be highly flexible ranging from 2-6 weeks. In addition, the nutritional and caloric composition of the diet also appears to be highly variable (personal communication from Dr. Sophie Odermatt, medical consultant to IFMT and UNICEF, February 2004). Based on the HIA Team’s observations, both the nutritional practices and the length of the lying by the fire were highly variable and potentially dependent on the specific ethnicity of the woman. In addition, recent data from a Mahosot Hospital study (Soukaloun et al., 2003) demonstrated that both rice cooking practices, food selected by the lactating mother and the families socio-economic status were highly related to the rate of clinically significant thiamine deficiency in breast fed infants in Lao. Thus, the potential adverse effects of the *yuu fai* may be amenable to educational intervention strategies. The potential impact of the Project on this post-partum practice is unknown. The opportunity exists to improve and reinforce the beneficial aspects while ameliorating the negative potential nutritional aspects via educational outreach. Whether relocation and “urbanization” will change the overall practice is unknown since this practice already flourishes in urban areas, including Vientiane (personal communication from Dr. Sophie Odermatt).

### Legend for tables

<table>
<thead>
<tr>
<th>Population affected</th>
<th>Impact level</th>
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<tbody>
<tr>
<td>A Children/infants &lt; 5 years</td>
<td>High</td>
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<tr>
<td>B Children age 5-14 years</td>
<td>Medium</td>
</tr>
<tr>
<td>C Women of reproductive age 15-49 years</td>
<td>Low</td>
</tr>
<tr>
<td>D Men and female 15-60 years</td>
<td>None</td>
</tr>
<tr>
<td>E Elderly &gt; 60 years</td>
<td>Enhanced</td>
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</table>

Lying by the fire (*yuu fai*)

Similar impacts are expected on post-partum medical practices. The current post-partum “lying by the fire (*yuu fai*)” practice is complex and deeply rooted in the culture. Traditionally, after delivery, Lao women remain for 15-30 days on their bed under which a fire with charcoals is made. A strict dietary regime of rice soups and chicken breast meat is followed. If this dietary practice is rigidly adhered to for long duration, the women are at risk for anemia, and micronutrient deficiencies. The newborn could be similarly impacted.
Table 5-23: Risk Profiling of Plateau Resettlement Area (PIA #1)

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<thead>
<tr>
<th>Environmental health area (EHA)</th>
<th>Project timing</th>
<th>Operation</th>
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<td>Construction</td>
<td>Operation</td>
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<td>Age groups</td>
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<td>Respiratory diseases</td>
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<td>Vector-related diseases</td>
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<td>Sexually-transmitted infections</td>
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<td>Food, water and soil-borne</td>
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<td>Accidents and injuries</td>
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<td>Exposure to hazardous materials</td>
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<td>Nutrition, food source</td>
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<td>Psychosocial</td>
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<tr>
<td>Cultural health practices</td>
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5.7.4 Regulating pond and downstream channel areas (PIA #2)

Overall Assessment:

High impact: Altered agricultural practices and fisheries as an underlying health determinant in the first years of operation (see also nutrition assessment); construction phase related activity (respiratory, accidents/injuries); Moderate Impact: Malaria, typhus, dengue, meliodosis, pesticides, nutrition, psychosocial, cultural health practices, and infrastructure Low Potential Impact: Schistosomiasis, opisthorchis infection

Risk profiling: Table 5.24.

Short Description:

The major impacts in this PIA are related to (i) changes in agricultural practices and fishing yields due to increased year-round availability of relatively large volumes of water, and (ii) construction activities in areas adjacent to population centers. Enhanced water availability will probably allow for dry season rice cultivation, but may adversely affect fishing yields. Hence, the possible significant impacts – positive or negative – are largely related to the changing water flow dynamics in the Xe Bangfai, significantly higher water discharges all year long, and altered water quality. Adverse nutritional impacts are primarily related to potential decreases in fishing yields and, probably to a lesser extent, to somewhat smaller areas for riverbank gardening. These potential adverse impacts are uncertain but assessed as “significant” since fishing provides an important source of dietary protein for local populations as described in both the EAMP and NTPC’s “Xe Bangfai Socio-Economic Health and Fisheries Survey, 2001”. High water volumes during the dry season could impact riverbank gardening practices since there is a limited area for this type of cultivation practice. The highest potential impact rating was not given since it is unknown if these impacts will be experienced and, if so, to what degree, and for what duration. For example, local fishermen are likely to adapt their fishing gear as a result of permanently elevated water discharges.
The vector-related diseases have a moderate likelihood of increasing due to increased water availability. Malaria is already prevalent in this area; however, as previously discussed, a change in dominant vector species to *An. nivipes* is considered possible based on the experience seen in Thailand and India (see Section 5.6). Also, there is some suggestive evidence related to this hypothesis based on the published work of Kobayashi et al (2000). Increased rice field exposure may increase melioidosis rates, a bacterial disease associated with rice farming. A second water resource driven dry season rice cultivation will increase the need and demand for fertilizers and pesticides. The current Pest Management Plan (PMP) describes the pattern and utilization of these chemicals in the Xe Bangfai region. With increased utilization, exposure, residue accumulation and surface water runoff are considered likely. This sequence of events already occurs, it is the degree to which it will be augmented that is unknown.

Opisthorchis infection is highly prevalent in villages along the Nam Kathang and upper Xe Bangfai, but the increased availability of water resources is unlikely to change this situation. Schistosomiasis is not present in the region; however, the intermediate host snail has been documented in multiple locations. Transmission of schistosomiasis is currently restricted to two districts in the very south of Lao PDR with an estimated 60,000 people at risk (Urbani et al. 2002). While there is some possibility of 1) workers emigrating from these endemic areas in the south, 2) relocating to the Project area, and 3) completing the transmission cycle, the chances of this scenario appear to be low. In addition, it has been suggested that the increased overall water flow levels create a less favourable habitat for the intermediate host snails.

While there may be limited relocation of some households along the downstream channel, the number of affected individuals is small and the relocation distance is also quite minimal. In addition, unlike for the Nakai resettlement area, a potential change in lifestyle is not at issue. From an enhancement impact, the food/nutrition situation could improve by virtue of a second rice growing season; however, there could be a short-term impact during construction and filling phases since there will be a loss of land under cultivation. The psychosocial impacts due to loss of land, change in cultivation practices and accident-related death and injury were rated moderate since these changes will be timing restricted with eventual improvement. Changes to cultural health practices are felt to be moderate.

<table>
<thead>
<tr>
<th>Environmental health area (EHA)</th>
<th>Project timing</th>
<th>Environmental health area (EHA)</th>
<th>Project timing</th>
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<tbody>
<tr>
<td></td>
<td>Construction</td>
<td>Operation</td>
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<tr>
<td></td>
<td>Age groups</td>
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<tr>
<td></td>
<td>&lt;5 years</td>
<td>5-15 years</td>
<td>15-49 years</td>
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<tr>
<td>Respiratory diseases</td>
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<tr>
<td>Vector-related diseases</td>
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<td></td>
<td></td>
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<tr>
<td>Sexually-transmitted infections</td>
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<td>Food, water and soil-borne</td>
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<tr>
<td>Accidents and injuries</td>
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<tr>
<td>Exposure to hazardous materials</td>
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<td>Nutrition, food source</td>
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<td>Psychosocial</td>
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<tr>
<td>Cultural health practices</td>
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</tbody>
</table>
5.7.5 Villages along the Xe Bangfai (PIA #3)

Overall Assessment:
High impact: Fishing practices as a health determinant (see also nutrition assessment); dengue in case current seasonal flooding is increased (this impact will be low if current flooding levels will not be intensified)
Moderate Impact- Malaria, nutrition, dengue, meliodosis, and pesticide
Low Potential Impact- Schistosomiasis, opisthorchis infection

Risk profiling: Table 5-25

Short Description:
The major impacts in this PIA are related to changes in agricultural practices and fishing yields due to increased year round availability of relatively large volumes of water. Enhanced water availability will probably allow for dry season rice cultivation, but may adversely affect fishing yields. Hence, the possible significant impacts – positive or negative – are largely related to the changing water flow dynamics in the Xe Bangfai, significantly higher water discharges all year long, and altered water quality. Adverse nutritional impacts are related to both potential changes in fishing yields and less significantly to river bank gardens. These potential adverse impacts are uncertain but assessed as “significant” since fishing provides an important source of dietary protein for local populations as described in both the EAMP and NTPC’s “Xe Bangfai Socio-Economic Health and Fisheries Survey, 2001”. Some level of continued river bank gardening is still anticipated since the river bank capacity appears to be substantially higher in the lower Xe Bangfai regions than in the upper regions. The highest potential impact rating was not given since it is unknown if these impacts will be experienced and, if so, to what degree and for what duration. For example, local fishermen are likely to adapt their fishing gear as a result of permanently elevated water discharges.

Table 5-25: Risk Profiling of Villages along the Xe Bangfai (PIA #3)

<table>
<thead>
<tr>
<th>Environmental health area (EHA)*</th>
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<td></td>
<td>Construction</td>
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<td></td>
<td>Age groups</td>
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<tr>
<td>Respiratory diseases</td>
<td>&lt;5 years</td>
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<tr>
<td>Vector-related diseases</td>
<td>≥15-49 years</td>
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<tr>
<td>Sexually-transmitted infections</td>
<td>15-40 years</td>
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<tr>
<td>Food, water and soil-borne</td>
<td>5-15 years</td>
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<tr>
<td>Accidents and injuries</td>
<td>15-60 years</td>
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<tr>
<td>Exposure to hazardous materials</td>
<td>&lt;5 years</td>
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<tr>
<td>Nutrition, food source</td>
<td>≥15-49 years</td>
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<td>Psychosocial</td>
<td>15-60 years</td>
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<td>Cultural health practices</td>
<td>5-15 years</td>
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A major potential for significant impacts is related to any augmentation of the current rainy season flooding pattern. Dengue is highly prevalent during the seasonal flooding season. Anything that prolongs the presence and distribution of standing water will increase this situation. Current EAMP documents
clearly state that the Project will NOT contribute to flooding. Assuming that this assertion is correct, then dengue impacts will likely be unchanged. As discussed in Section 5.6.3.7, the role of water chars (associated with improving economic conditions) in dengue incidence rates is unknown. A second dry season rice crop will be possible since the availability of water resources during the dry season will substantially improve. Currently, irrigation water is already being pumped from the Xe Bangfai; however, the addition of Project water will facilitate this practice by lowering overall pumping costs. The psychosocial impacts are rated moderate during operation because the perception, whether hydrological correct or not from an engineering perspective, are that the Project will diminish local fisheries on which thousands of people depend for their livelihoods, and will increase flooding with subsequent disease (dengue) impacts.

5.7.6 Nam Theun riparian area (PIA #4)

Overall assessment: Moderate to low impact; timing-specific.

Risk profiling: Table 5-26.

Short description:

There is a mixture of Project phase-specific low or moderate level impacts for at risk individuals in this area. There will be an isolated construction work camp in this area, so there will be some possibility of interaction between the construction camp workers and villagers living in scattered villages in the Nam Theun watershed area. However, in view of the remoteness and isolation of this area, access is difficult, hence potential interactions between workers and villagers is unlikely to occur at a significant level. There are some potential issues associated with the dramatically reduced water quantity, as well as the likely changes in water quality, downstream of the dam site once the dam has been completed and reservoir filling commences. These ecological changes will reduce fishing yields, which in turn might impact on the food and nutrition base of those few fishermen who currently utilize the riparian area as fishing and hunting grounds. Because of these uncertainties, psychosocial effects were felt to be possible during the reservoir filling and operation phase. Cultural health practices are likely to be unaffected.

Table 5-26: Risk Profiling of Nam Theun Riparian Area (PIA #4)

<table>
<thead>
<tr>
<th>Environmental health area (EHA)*</th>
<th>Project timing</th>
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<td>Cultural health practices</td>
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November 2004   Nam Theun 2 Project – Social Development Plan – Volume 1
5.7.7 Villages in the Nam Theun 2 watershed (PIA #5)

Overall assessment: Low impact.

Risk profiling: Table 5-27.

Short description:
In general, there is a low likelihood of new or increased health impacts to this area. The area will be fundamentally unaffected by direct construction activities; hence, induced access into these areas will be minimal. The incremental Project induced interaction between the villages in the Nam Theun 2 watershed area and construction workers and/or camp followers is uncertain, but expected to be very low. If this interaction were to substantially increase via economic incentive for commercial trading of goods and services, then the possibility of more subtle direct, indirect and cumulative impacts would exist. Impacts across the four major defined sectors (housing and urban development, water, food and sanitation, transportation and communications and information access) are expected to be insignificant. There is felt to be a possible, albeit low, psychosocial potential for impacts, but this is restricted to the reservoir-filling phase.

Table 5-27: Risk Profiling of Villages in the Nam Theun 2 Watershed (PIA #5)

<table>
<thead>
<tr>
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<th>Project timing</th>
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<td>Cultural health practices</td>
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5.7.8 Construction work camps (PIA #6)

Overall assessment: High impact, multiple sectors.

Risk profiling: Table 5-28.

Short description:
The development and presence of multiple construction camps during the various phases of the Project will be an obvious source of both enhanced and adverse impacts. While most of the workers will probably be males, the adjacent community interactions and potential impacts are expected to occur across all ages and genders. The most significant potential negative impacts are (i) transmission and potential amplification of STIs, including HIV/AIDS; (ii) secondary developments triggered by camp followers living in close geographical proximity to construction work camps (see PIA #5 and 6); and (iii)
overwhelming of local management and programme management systems. On the other hand, the presence of the construction work camps will clearly be a major economic stimulus that in turn acts a huge health determinant. Consequently, the presence of the camps can act as a significant stimulus for both health care delivery infrastructure and technology enhancement.

Potential significant adverse impacts could occur across all environmental areas; however, most of these potential impacts will probably be time limited and directly related to the presence or absence of the camps. In contrast, changes in the shape and slope of the HIV/AIDS epidemic curve would be profound and long lasting. The current level of HIV/AIDS in the major Project province (Khammouane) is extremely low (see Section 5.6). Factors that change mixing rates (interaction between high and low risk groups with disparate seropositive prevalence rates) and partner change rates (increased disposable spending money leading to increased purchase of commercial sex) directly affect the shape and size of the epidemic curve (Krieger et al., 2004). This situation is often characterized as “The Four “M’s”: men, money, mixing and movement.

The construction work camps clearly have all of these parameters in simultaneous interaction. Therefore, a well developed, monitored, and sustained multi-component HIV/AIDS programme is of paramount importance. Given the low baseline levels in the resident population, the HIV/AIDS impacts are potentially so significant that the development, review, funding, coordination (or direct management) with/by the national programme should be a key requisite prior to construction camp development.

A rapid assessment conducted around the nascent camp sites (Oct’04) by the MoH Department of Hygiene and Prevention found that HIV/AIDS awareness and condom use was acceptably high in the area. This must be linked to the last 2 years’ STI/HIV prevention efforts conducted in Khammouane by Population Services International on an ADB grant. PSI works alongside their Lao counterparts of the National, Provincial and District Committees for the Control of Aids, and will continue doing so with support of NTPC. PSI specifically targets the areas affected by construction work, and is in contact with both the PHAP and the PSHP managers. As such it should be the optimal agent to integrate and coordinate both Programs’ activities in the STI/HIV sphere. CARE may also in the reproductive health effort for the resettler population as of early 2005, integrating it with gender and rural development issues. Both NGO’s are considering ways of expanding into Voluntary Counselling and Testing, and seek links to MSF’s antiretroviral clinic in neighbouring Savannakhet.

In terms of the other ten defined environmental health areas, the construction work camps can be viewed as an exercise in rapid urban planning with all the well-known and expected positive and negative consequences. There are a myriad of enhanced and negative effects that can and will occur. However, our assessment is that there are several key environmental health areas that could be significantly (adversely) affected and “spill-over” into adjacent villages/communities:

**Respiratory:** (i) rapid spread of viral upper respiratory illness; (ii) TB

Based on data analysed in Section 5.6, TB is undoubtedly under-diagnosed. In addition, there is currently no formal case finding system; hence, reported prevalence rates are likely to be higher. TB and HIV/AIDS are covariate with each other in almost all epidemiological settings, i.e. in sub-Saharan Africa approximately 70% of the TB cases are HIV positive. In Vietnam the corresponding figure in 2002 was 3,6%, while it was just 0,66% in Laos. The current health infrastructure and management systems capacity for TB diagnosis, treatment and case finding and surveillance would be overwhelmed by a dramatic upsurge in TB regardless of whether it was triggered by HIV/AIDS.

**Vector-borne: malaria**

Dramatic progress has been made regarding the control of malaria in the Project areas over the past several years, most likely through a combination of village-level early diagnosis (symptom-based) and treatment (via the revolving drug fund) and the large-scale implementation and utilization of ITNs. As mentioned before, chloroquine is currently employed as the first-line drug despite repeated reports of high levels of resistance across the country. This is of considerable public health significance and the situation could further aggravate due to demographic and environmental alterations. Introduction of resistant strains via in-migration of non-local workers has been observed elsewhere, and is of concern in the present setting. Non-local workers (even from other malarious areas) may not have adequate resistance (immunity) to specific local malaria strains; hence the use of chemoprophylaxis and overt treatment may
significantly increase. Construction activities may alter ecosystems in unanticipated ways and change the pattern, distribution and dominant vector species. A comprehensive malaria control programme is essential.

**Sexually transmitted infections (STIs)**

The earlier HIV/AIDS discussion also applies to STIs, as the same biomedical and behavioural issues are also relevant for the curable STIs, e.g. gonorrhea, Chlamydia, syphilis, etc.

**Soil and water**

Relating mainly to waste management and rodent control, there is significant potential for rodent control problems associated with both construction camp development and “steady-state” operation. There are detailed environmental management plans for this activity; however, if these plans are not fully and successfully implemented then rodent related diseases in adjacent villages/communities could become significant (e.g., leptospirosis, murine and scrub typhus).

**Food and nutrition**

Relating mainly to (a) food pricing inflation as a health determinant with impacts on overall community nutritional status and (b) opisthorchis infection. While the Project construction camps may provide a significant positive market based signal for enhanced agricultural production, price inflation both at a macro camp level and at a micro individual construction worker level (individual purchases from nearby markets) is possible. The least productive members of the community could be nutritionally marginalized if there is significant food price inflation. The SDP’s socio-economic monitoring system (to be integrated with the VSSS) will track and warn about these changes.(see SDP Vol. 1/ Chap 8 and Vol.2/Chap 46).

Opisthorchis infection prevalence rates currently are low in the Nakai plateau area, but extremely high in the lower regions of the Xe Bangfai. Movement of opisthorchis infection positive workers into the Plateau area with subsequent introduction of the parasite into local waters and fisheries and introduction of different dietary practices could change transmission rates considerably.

**Accidents/Injuries**

There will be significant numbers of both light and heavy vehicles entering and leaving the construction areas. The likelihood of accident and injury with community/village individuals will significantly rise simply as a function of increased traffic and activity. Consequently, we expect, regardless of the implementation of a required traffic management plan, a significant (adverse) rise in traffic related injuries, accidents and fatalities with subsequent pressure on health care infrastructure and delivery systems.

**Exposure to potentially hazardous materials**

While there is some potential for community/village level exposure to project related hazardous materials, this is considered low. In contrast, potentially significant exposure to increased levels of air pollution is a certainty. Overall air pollution will increase as a direct function of Vehicle Kilometres Travelled (VKT). The planned level of construction will significantly increase VKT in the various construction areas. Since many of the roads will not be paved, an increase in fugitive dusts is a certainty. Similarly there will be construction related (earth works) fugitive dust releases. Road related fugitive dust releases typically have varied particle sizes. Particle size distribution curves from mechanical forces (e.g., tires) versus combustion (e.g., engines, incinerators, etc.) are quite different. Mechanical fugitive dusts tend to have larger and less respirable particles; however, there will be an overall increase in particulate matter (PM) of 10 microns (PM 10) or less, including smaller and toxicologically more significant particles less than 2.5 microns (PM 2.5).

**Psychosocial**

Relating mainly to (a) substance abuse- drug, alcohol, smoking; (b) security and violence, the SDP considers both the numerous psychosocial impacts that could be triggered by the Project and the available mitigation strategies for these impacts (see SDP Chapters 15 and 26). The introduction of the construction camps and large numbers of workers with disposable money is potentially associated with community/village level changes in existing substance abuse rates and adverse interaction with local members of nearby communities. Strict alcohol and drug control policies and procedures are essential. Smoking prevalence rates, using home grown or inexpensive national or foreign cigarettes, appear to already be quite high so it seems less likely that these rates will be significantly impacted. Labour trafficking issues are in the SDP vol. 4 / Chap 46.
Table 5-28: Risk Profiling of Construction Work Camps (PIA #6)

<table>
<thead>
<tr>
<th>Environmental health area (EHA)*</th>
<th>Project timing</th>
<th>Age groups</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Construction</td>
<td>Operation</td>
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<tr>
<td></td>
<td>&lt;5 years</td>
<td>5-15 years</td>
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<tr>
<td>Respiratory diseases</td>
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<td>Vector-related diseases</td>
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<td>Sexually-transmitted infections</td>
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<tr>
<td>Food, water and soil-borne</td>
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<td>Accidents and injuries</td>
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<tr>
<td>Exposure to hazardous materials</td>
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<td>Nutrition, food source</td>
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<td>Psychosocial</td>
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<tr>
<td>Cultural health</td>
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</tbody>
</table>

5.7.9 Camp followers: family and service (PIA #7)

Overall assessment: High impact, multiple sectors. Most significant potential negative impacts: all environmental health areas but particularly (a) Housing, (b) Waste management/sanitation (c) Soil/ water, (d) Vector –borne, (e) STIs and HIV/AIDS

Risk profiling: Table 5-29.

Short description:

Potential significant adverse impacts could occur across all environmental areas; however, most of these potential impacts will probably be time limited and directly related to the presence or absence of the camps. In terms of the eleven defined environmental health areas, the camp followers can rapidly turn into an uncontrolled “squatter settlement” with all the well-known and expected negative consequences. There are a myriad of negative effects that can and will occur if this process is uncontrolled and unmanaged. The most significant adverse impacts will be derivative from the major sectors: 1) housing, 2) water, food, and sanitation and 3) transportation. All nine of the listed environmental health areas will be at issue if large camp follower settlements are allowed to develop. Estimates that population levels 2-4 times the labour force will be co-located in proximity to the construction camps will place a severe burden on all sectors and environmental health areas. Whether these potential peri-urban settlements could be managed without negatively diverting resources away from other mandatory efforts is problematic. The geography of the Nakai area is rough terrain with extremely limited access via one road. Passive migration into the proposed Nakai Plateau area construction camp will be quite difficult without passing through the single available transportation corridor. However, the other proposed construction camps have more direct access, particularly via the recently upgraded Road 12. Therefore, unless a major commitment in money and material for an across the board sector development and upgrade is made for the camp settlers, some form of strict access control will be necessary to prevent severe adverse impacts in all named environmental health areas.
The analysis of camp services suggests additional emphasis should be placed on control of STIs. If a large camp follower service sector is allowed to develop, the previously described phenomenon of men, money, mixing and movement is assured. The obvious consequences of this development would be a potentially explosive rise in STIs. Therefore, both access control and comprehensive area wide plans for STIs (including HIV/AIDS) are to be developed and implemented. Since 2002, PSI has been active in Khammouane. As partners at every level AIDS Control Committees, organisations such as PSI and CARE may be recruited by the PSHP and PHAP to address these concerns as of early 2005.

Table 5-29: Risk Profiling of Camp followers: Family and Service (PIA #7)

<table>
<thead>
<tr>
<th>Environmental health area (EHA)*</th>
<th>Project timing</th>
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<tbody>
<tr>
<td></td>
<td>Construction</td>
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<td>&lt;5 years</td>
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<td>Respiratory diseases</td>
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<td>Vector-related diseases</td>
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<td>Sexually-transmitted infections</td>
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<td>Food, water and soil-borne</td>
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<td>Accidents and injuries</td>
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<td>Exposure to hazardous materials</td>
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<td>Psychosocial</td>
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<td>Cultural health practices</td>
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5.7.10 Transportation corridor (PIA #8)

Overall Assessment: High

Most Significant Potential Negative Impacts: (a) accidents/injuries, (b) air pollution, (c) releases of potentially hazardous materials from rollovers, accidents; (d) demand for health infrastructure capacity (trauma); (e) cultural health practices

Risk profiling: Table 5-30

Short description:

The transportation corridor impacts are expected to be significant in multiple areas due to the high VKT (vehicle kilometres travelled) required during construction related activities. Many of the potential impacts related to air pollution, hazardous materials, trauma services, cultural health practices and health infrastructure have been presented in other PIA discussions and will not be repeated.
Table 5-30: Risk Profiling of Transportation Corridor (PIA #8)

<table>
<thead>
<tr>
<th>Environmental health area (EHA)*</th>
<th>Project timing</th>
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<tr>
<td></td>
<td>Age groups</td>
<td>≤5 years</td>
<td>5-15 years</td>
<td>≥15-49 years</td>
<td>15-60 years</td>
<td>&gt;60 years</td>
<td>≤5 years</td>
<td>5-15 years</td>
<td>≥15-49 years</td>
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<td>Respiratory diseases</td>
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5.7.11 Summary

As presented, there are mixtures of impacts across the eight PIAs that are timing dependent. In general, high impacts in PIA #1, 2, 6, 7 are related to active construction phases of the Project. However, this pattern changes for PIA #3 where the opportunities for potentially high impacts are predicted during reservoir filling and operations phases.

The assessment process clearly involves professional judgement and is not intended to be a quantitative predictor of the actual probability of risk. In the next section, the Public Health Action Programme (PHAP) for the mitigation of the assessed impacts will be described. If successfully and fully implemented, this programme will substantially change the likelihood and severity of predicted impacts.
PART 2: PUBLIC HEALTH ACTION PLAN

5.8 INTRODUCTION

5.8.1 Summary

The PHAP covers two Health Programs which are responsible for preventing and mitigating the adverse effects of the Nam Theun 2 Project.

- The Resettlement Health Program
- The Regional Health Program

The Concession Agreement defines the obligations and responsibilities of these two Health Programs.

Most construction activities of the project and the creation of the Nakai Lake take place in 4 remote and rural Districts with a low level of development. The population of these Districts are amongst the poorest in the Lao PDR. The national poverty rating classifies Nakai and Khamkheut as very poor districts and Gnommalat and Mahaxay as poor Districts.

The PHAP is only one of the many plans of the Social Development Plan and the Environmental Assessment and Management Plan. Both the SDP and the EAMP contain many activities which are directly interlinked with health and thus with the PHAP. Certain activities such as water supply, water quality control, construction of sanitary facilities and waste management are budgeted and will be implemented by other plans/chapters than the PHAP. They will however need collaboration with the health sector and thus the PHAP when it comes to specification, guidelines and inspections.

The two Health Programs have each their own objectives, budget, target groups, activities and time frame. Table 5.40 gives a summary overview of these aspects by Program.

The development of the Resettlement Health Program and the Regional Health Program are the responsibility of the NTPC. The two Health Programs will be concerned with more or less the same diseases and health problems, but in slightly different areas and populations. The Resettlement and the Regional Health Program will implement their activities through the public health institutions. For these reasons the two Health Programs must collaborate routinely during both planning, implementation and evaluation. This should result in synergies, cost-effectiveness and would avoid duplication.

This PHAP is the logical result of the Health Impact Assessment (HIA). The HIA identified 9 Environmental Health Areas (EHA), groups of diseases and adverse health effects, and 8 Possible Impact Areas of Concern (PIA). For each of the PIA the HIA developed a risk profile rating the risk for each of the EHA. The Regional and Resettlement HP are based on the HIA. They utilise the EHA in order to identify the required prevention and mitigation activities. The 8 PIA have been regrouped to 6 Possible Impact Area/Target Group (PIA/TG). For planning purposes they are used to identify the geographical areas as such defining where specific activities should take place.

The major and most immediate adverse health impacts are expected in areas where construction and camps of workers and camp-followers (families of workers and service providers) are concentrated. Most likely they will consist of communicable diseases (food and water-borne, STI & HIV/AIDS) and Accidents (Road Traffic Accidents (RTA) and construction related accidents).

The NT2 project activities and related events could be classified in the following two time periods:

1. Construction + early Resettlement Transition Period
2. Operations Period + stability period of resettlement
Each period generates its own types of Health Impacts. While identifying the EHA and their risks, the HIA looked at each period separately. The reservoir will start to fill soon after the beginning of construction works because of the construction of a cofferdam. (see Table 5-31).

The Resettlement Health Program and the Regional Health Program are planned to cover an eight year period. They will start from before the financial close (±start of the construction works) till three years after Commercial Operations Date (COD), which is the moment the dam will start to operate.

Both health programs need to foresee a preparation phase before Financial Close for putting in place the required infrastructure and equipment and for developing the needed health professional skills. Health education and prevention activities will also be a priority, as local communities need to be well informed about possible health risks and how to prevent them in order to adapt their possible risk behaviours.

Baseline data have been collected at community level on 22 key health indicators (NTPC Socio-Economic Survey 2001). Fifteen more will be documented before FC. Monitoring of adverse health impacts outside worker camps will start before FC and continue until COD.

**Table 5-31: Time Frame of NT2 Project Activities and of Resettlement**

<table>
<thead>
<tr>
<th>Description</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Ongoing</th>
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</thead>
<tbody>
<tr>
<td>Construction</td>
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<td>Ongoing</td>
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<td>Reservoir Filling</td>
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<td>Operation</td>
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<td>Resettlement</td>
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</table>

The Monitoring and Surveillance of Health are regarded as essential. On the one hand it will provide a tool for the NT2 project to prove the impact and the effectiveness of their prevention and mitigating activities. On the other hand it will support the Lao Government and the local communities to request for additional support when needed.

Another essential component of the Monitoring and Surveillance System is the Infectious Disease Detection System.

A NT2 project PHAP Steering Committee will be established. This Steering Committee will be responsible for controlling and steering the different health programs.

Planning, coordination, management and supervision of both the Resettlement and the Regional Health Program will be assured by one Program Management Unit (PMU).

Implementation of most of the planned activities of the Resettlement and the Regional Health Program will be assured by the Lao public health institutions.

- Promotional, preventive and curative service delivery activities will be conducted by Village Health Volunteers, Health Centres, District Hospitals and District Mobile Teams. The Provincial Hospital of Thakhek will play an important role as referral hospital.
- Support, supervision and inspection activities will be the responsibility of the District Health Offices (DHO), the Provincial Health Office (PHO) and for specific aspects the Ministry of Health through its central level departments.
- Training activities will be conducted by a variety of institutions amongst others the Thakhek Provincial Public Health School, the Provincial Health Office, different central level departments and divisions of the MOH, the provincial and central hospitals, and possibly the Institute Francophone pour la Médecine Tropical (IFMT) and Thai Health Institutions.
- Specific activities, as social marketing for condoms and antiretroviral treatment will be contracted out to specific NGOs (e.g.: PSI and MSF).
- Mass movement organization such as the Lao Women’s Union and the Lao Youth Union will be involved in promotional and preventive activities.

The Resettlement and the Regional Health Program will put a lot of emphasis on improving the functioning of the public health institutions. This will include the following supports: human capacity building, development of management systems, infrastructure, equipment, transport, medicine and medical supplies, operational costs, and also technical assistance.

The problem of financial accessibility will be addressed. Different financing mechanisms will be used during different periods and will be targeting specific groups. Medical expenses of resettler families will be covered up until COD + 2 Those of households elsewhere clearly suffering illness as a result of the construction work activities will also be subsidised. Additionally the Health Programs will try to render the existing health services and cost recovery system more efficient and transparent.

This PHAP proposes planned activities, a schedule and budget for the total project period. The program period for the Resettlement is about 8 year while the Regional Health Program is in two components (a) the 4 year construction period, followed by 5 year of monitoring of mainly any impacts from the new water regimes.

Therefore, after 4 a midterm review will evaluate the pertinence of the PHAP and make required adjustments. One decision then to be taken regards the feasibility of community health insurance, since more experience with this novel form of cost recovery in Lao will then have been accumulated. Detailed planning and budgeting will be done on yearly basis. The yearly planning and budgeting exercise should run concurrently with the GOL financial year (1st October-30th September). Its development will be the responsibility of the PMU. It will be developed in collaboration with Thakhek PHO and concerned DHOs. After approval by the Program Steering Committee the yearly plan and budget will be integrated in the District and Provincial Health Plans.

The annual plan and budget for the financial year 2004-2005 will be developed during the month of August and September 2004 in a collaborative exercise of the NTPC Health Unit, the MOH taskforce and the Thakhek PHO, the Districts of Nakai, Gnommalat, Mahaxay and Khamkheut, and the Thakhek Provincial Hospital.

It will address mainly the following aspects:
- Development of a comprehensive curative system (designing the referral system, rehabilitation of transport corridor HCs, rehabilitation of Nakai and Mahaxay DH, development of Gnommalat DH as first referral level)
- Construction of sanitary facilities, waste management and domestic water supply for the camp followers camps
- Conducting health education activities sensitizing the local communities on the changing health risks

5.8.2 Methodology and Public Consultation

This PHAP has been developed by a taskforce of the Lao Ministry of Health with technical support NTPC's public health consultants and an environmental health specialist both provided by NTPC. It is also based on the (earlier described) Health Impact Assessment. Many public and official consultation meetings were held at different levels, from village authorities to the Provincial Governor and the Minister of Health, including:
- Village authorities of the target villages;
- District authorities of Nakai, Gnommalat and Mahaxay;
- District Health Offices of Khamkheut, Nakai, Gnommalat, Mahaxay, Xebangfai, Nongbok, Xaybuli and Thakhek;
Chapter 5: Health Impact Assessment and Public Health Action Plan

- Provincial Health Offices of Borikhamxay, Savannakhet and Khammouane;
- Different MOH departments;
- The MOH Steering Committee;
- Different development Organizations active in the field of health in Lao PDR.

During these meetings the taskforce presented the identified Environmental Health Areas as well as the preliminary action plans with their proposed mitigating activities. These presentations were followed by discussions in groups. The different groups reviewed and commented on the plans. They did share their worries and proposed some supplementary activities (see Annex 5-5: Minutes of Public Consultation Meetings). This PHAP has incorporated most comments and recommendations made at these consultation meetings.

The MOH Steering Committee proposed that the inputs for promotional, preventive and curative activities required for limiting and mitigating the impacts of the NTPC project be covered by one of the two Health Programs. This includes rehabilitation, construction, provision of equipment and operational costs related to the improvements of the DHs and HCs of Nakai, Ngommalat and Mahaxay.

Due to the different dimensions and many overlapping areas of the various Health Programs, the lay-out of this PHAP document is rather complex. This introduction is followed by general aspects. Then the two Health Programs are presented, each with an introduction, activity lists, specific inputs, indicators, budget and Gantt chart. Monitoring and surveillance as well as capacity building are discussed jointly for the Resettlement and the Regional Health Program as they are crosscutting issues.

5.8.3 Objectives

Each of the two Health Programs is having its own objectives.

Objectives of the Resettlement Health Program:
- Prevent and mitigate effects of resettlement on the resettled population of the Nakai plateau
- Improve the health situation of the resettled population of the Nakai plateau
- Build the capacity of the Public Health Institutions for addressing their target populations’ needs

Objectives of the Regional Health Program:
- Prevent and mitigate effects of construction and of operation of the NT2 Dam on the local population
- Prevent and mitigate effects of the population influx (workers & camp-followers) on the local population
- Improve the health situation of the local population
- Build the capacity of the Public Health Institutions for addressing their target populations’ needs

5.8.4 Strategies

The above mentioned objectives will be achieved through several strategies, which will address the whole chain of services required for obtaining their objectives. They are as follows:
- The Prevention and Mitigation activities addressing the 8 Environmental Health Area’s will be implemented by the MOH institutions;
- Therefore the Resettlement and Regional Health Program (and possibly the Project Staff Health Program) will support improvement of the Public Health Institutions and Programs. This support will include: Capacity building, Infrastructure, Equipment, Transport, Medicine and Medical Supplies, Operational Costs;
- Implementation and planning of the mitigating activities will be done in an integrated way whenever possible.
The two new planned Health Centres for the resettlement area will be developed and function as Integrated Community Health Centres (same approach as BTC and HSIP);

In order to assure comprehensive curative care a referral system will be developed integrating the Health Centres, the rehabilitated District Hospitals of Nakai and Mahaxay, the rehabilitated and upgraded District Hospital of Gnommalat and the Provincial Hospital of Thakhek.

Capacity building is recognized as a major component and will get a detailed plan based on a training need assessment.

A “Monitoring and Surveillance” system will be developed. A team will be responsible for centralizing, processing, analysing, interpreting and communicating data coming from different data collection systems (routine and surveys, existing and newly developed).

An “Infectious Disease Outbreak Rapid Response Preparedness” taskforce will be developed. A contingency fund to be used in case of outbreak will be available and easily accessible.

Financial Accessibility will be assured through special funding for the resettlers’ and affected construction area families’ medical expenses.

Table 5-32: General Overview of the two Health Programs

<table>
<thead>
<tr>
<th>Health Programs</th>
<th>Resettlement</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>event and Mitigate effects of Resettlement</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>event and Mitigate effects of Constructions and of Operation of the NT2 Dam</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>event and Mitigate effects of the population influx (workers &amp; camp-followers)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Preventive and curative measures ensuring Health and Safety of the workforce</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Improve the health situation of the local Population</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05 - 2009 Construction (Reservoir Filling)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>09 - 2013 Operation of dam</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Target Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>settlement</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>downstream Channel and Nam Kathang Area</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Xe Bangfai Riparian Area</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transportation Corridor</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>camp followers</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Major Work Camps (Workforce)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Geographical concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>akai</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>gnommalat</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>mahaxai</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>thakhek</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

5.8.5 Target Groups and Beneficiaries

The HIA divided the Project into discrete “potential impact areas of concern” (PIA). In this conception, a PIA can represent either a “subject matter”, usually composed of a specific population group, or a defined geographical area where Project-related health impacts may reasonably occur. For the NT2 HIA, it distinguished 8 different PIA. The 8 PIA were described in Section 5.2 of the HIA and include:

- PIA #1: Plateau resettlement area
- PIA #2: Regulating Pond and Downstream Channel areas
- PIA #3: Villages along the Xe Bangfai
- PIA #4: Nam Theun riparian area
- PIA #5: Villages in the Nam Theun 2 watershed
• PIA #6: Construction work camps
• PIA #7: Camp followers: families and service providers
• PIA #8: Transportation corridor

Based on the 8 PIA the PHAP identified the target groups for the Three Health Programs. These target
groups have been called Possible Impact Areas/Target Groups (PIA/TG). The PHAP will work with 6
PIA/TG. (See table 5.41).

For planning purposes the PIA/TG were in each of the three Health Programs converted to geographical
areas as such defining where specific activities should take place. For the geographical location. see Figure
5-4).

Direct Beneficiaries (or Target Group)
The population of these 6 PIA/TGs are the direct beneficiaries of the three Health Programs.

Indirect Beneficiaries
The indirect beneficiaries will be the whole population of the supported districts as they will also benefit
from the improved health facilities.

Intermediate Beneficiaries
The District, Provincial and Central Health Departments and Institutions, and their personnel will be the
intermediate beneficiaries. They are both implementers and beneficiaries. They will be responsible for the
management and delivery of health services and outreach activities. In addition, they will benefit from the
enhanced capacity and increased motivation of health staff, from the improved service delivery systems
and guidelines developed, and from the improved infrastructure and equipment available in the
institutions.

Wider Beneficiaries
These Health Programs are taking place in a situation of reform and development of the health sector in
Lao PDR. Some of the results and approaches of this intervention will be documented and distributed.
Due to provincial and central level involvement, the lessons learned (comprehensive curative referral
system, equity funds, improved and integrated monitoring and surveillance system, outbreak response
preparedness, integrated mother and child services) will have the potential to influence future health
interventions in the Lao PDR. The wider beneficiaries are potentially the population of the whole of
Khammouane Province and of other provinces of the Lao PDR.

Table 5-33: Size and Location of Different PIA/TG [note: data very indicative only]

<table>
<thead>
<tr>
<th>Description</th>
<th>Villages</th>
<th>HH</th>
<th>Pop</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIA/TG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIA/TG 1: Plateau Resettlement Area</td>
<td>17</td>
<td>1,030</td>
<td>5,700</td>
<td>Nakai</td>
</tr>
<tr>
<td>2: Downstream channel and Nam Kathang area</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Gnommalat, Mahaxay</td>
</tr>
<tr>
<td>PIA/TG 3: Xe Bangfai Riparian area</td>
<td>89</td>
<td>±7,400</td>
<td>±45,000</td>
<td>Gnommalat</td>
</tr>
<tr>
<td>PIA/TG 4: Transportation corridor</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Nakai, Gnommalat, Mahaxai, TKK</td>
</tr>
<tr>
<td>PIA/TG limited to construction phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIA/TG 5: Camp followers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>workers and origin [prediction only]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td></td>
<td>Service</td>
<td></td>
</tr>
</tbody>
</table>
Assuming there will be an average of 2 followers per worker (due to administrative controls etc)

<table>
<thead>
<tr>
<th>Camp Type</th>
<th>Workers</th>
<th>Lao</th>
<th>Regional</th>
<th>Inter'l</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)  Dam area construction camp</td>
<td>800</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Khamkeut</td>
</tr>
<tr>
<td>(ii) Nakai work camps</td>
<td>600</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Nakai</td>
</tr>
<tr>
<td>(iii) Nam Theun Residence</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Main camp</td>
<td>2,200</td>
<td></td>
<td></td>
<td>Gnommalat</td>
</tr>
<tr>
<td>(v) Downstream work camps</td>
<td>400</td>
<td></td>
<td></td>
<td>Gnommalat</td>
</tr>
<tr>
<td>(vi) Mobile camps constructing TLs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PIA/TG 6: Construction Work Camps**

<table>
<thead>
<tr>
<th>Camp Type</th>
<th>Workers</th>
<th>Lao</th>
<th>Regional</th>
<th>Inter'l</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)  Dam area construction camp</td>
<td>800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Nakai work camps</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Nam Theun Residence</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Main camp</td>
<td>2,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) Downstream work camps</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vi) Mobile camps constructing TLs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 5-4: Geographical Location of Different PIA/TG
5.8.6 Environmental Health Areas

The Health Impact Assessment identified nine Environmental Health Areas which are logical groups of diseases and/or adverse health effects. The nine environmental health areas were described in Section 5.4.6 of the HIA and include: (i) respiratory diseases, (ii) vector-related diseases, (iii) Sexually Transmitted Infections (STIs), (iv) soil- and water borne diseases, (v) food and nutrition related issues, (vi) accidents and injuries, (vii) exposure to potentially hazardous materials, (viii) psychosocial, (ix) cultural health practices.

The Regional and Resettlement HP are based on the HIA. They utilise the EHA in order to identify the required prevention and mitigation activities.

For planning and simplicity, some of the environmental health areas have been combined and other split up. The Resettlement and the Regional Health Program will work with the following groups:

- Respiratory diseases
- Vector-related and pest borne diseases
- Sexually Transmitted Infections (STIs) and HIV/AIDS
- Food, Soil and Water borne disease
- Nutrition and micronutrients related issues
- Accidents/injuries, chemical exposures and poisoning
- Psychosocial
- Cultural Health Practices
Figure 5-5: Indicative Location and Size of Camps of Workers and Followers (size only)
5.9 IMPLEMENTATION FRAMEWORK

5.9.1 The Framework

An NT2 Resettlement Committee (RC) was established through the Committee for Planning and Cooperation by Decree 12/CPC, signed by the Deputy Prime Minister on January 25, 1995. Its members are appointed from the GoL’s Ministerial Steering Committee and from the affected Province’s Governors’ Offices. The RC ensures that those aspects of the SDP that are GoL’s responsibility to implement are carried out on time and on budget. It reports to the Vice Prime Minister with the overall responsibility for directing, guiding, and managing the Resettlement Process in accordance with the Concession Agreement (CA). Its main roles and functions include a/o:

- Monitoring and supervising the implementation of the obligations of both the GoL and the NTPC with respect to the Resettlement Process;
- Facilitating transparency and accountability of management and activities undertaken under the RC’s supervision;
- Convening and chairing biannual meetings to review past activities and future plans;
- Reviewing and resolving issues and problems as they arise, generally as identified or brought to the RC by the RMU and NTPC’s RO, and as arising among various Government Authorities and the Company relating to the Resettlement Process.

As such, the Resettlement Committee is also responsible for controlling and steering the various NT2 health programs. The actual responsibility for implementation and outcome results of the Resettlement and the Regional Health Programs is shared between

- NTPC1 and
- The Lao Ministry of Health, which includes;
  (i) The Provincial Health Office (PHO) in Thakhek
  (ii) The District Health Offices (DHO), in Khamkeut, Nakai, Gnommalaha, Mahaxay, Xebangfai, Xaibouly Districts.

Planning, coordination, management and supervision of both the Resettlement and the Regional Health Program will be assured by a Program Management Unit (PMU). The PMU office will be based at the PHO in Thakhek. It will be headed by one PHO and one counterpart NTPC Health Manager. The PMU reports to the Provincial Health Director in Thakhek and to the Social & Resettlement Office in Vientiane. It serves as a relay node for health inputs provided by various MoH Institutions and Programs, and by NGO’s contracted under the PHAP framework. (cf. Figure 5-6)

The Project Management Unit in Thakhek directs and supervises the activity of three NTPC officers. The Health Administration & Finance Officer is based in Thakhek and is responsible for documenting and organising all administrative and accounting transactions. The Health Intelligence Officer is based in Vientiane and is responsible for generating, exploiting and sharing quantitative and qualitative data to support management decisions (indicators) and behaviour change (ethnic representations). The Health Operations Officer is based in Thakhek and is responsible for organising and supervising health related logistics, training and infrastructure. All three officers and their superiors will frequently travel between base and field stations, as well as to implied agencies’ headquarters in Vientiane, as appropriate.

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1 The outcome results of the Project Staff Health Program will be the responsibility of the Head Construction Contractor. The necessary structures for coordination and collaboration with the PHAP will be specified in the PSHP before December 2004.
Figure 5-6: Organisational Chart of the Health Program Institutional Framework
At each of the District Health Offices of Khamkeut, Nakai, Gnomalasht and Mahaxay one DHO person will be appointed as the counterpart to an NTPC contracted Field Health Facilitator. Together they are responsible for coordinating and reporting on the PHAP activities implemented at various levels. Section 5.9.1 and 5.10.2 specify the planned activities at the various implementing institutions.

Most promotional, preventive and curative service delivery activities are provided by Village Health Volunteers, Health Centre, District Hospital and District Mobile Teams. Support, supervision and inspection activities will be the responsibility of the District Health Offices (DHO), the Provincial Health Office (PHO) and for specific aspects (including technical assistance) the Ministry of Health through its central level departments. The planned training activities will be conducted by several institutions amongst others the Thakhek Provincial Public Health School, the Provincial Health Office, different central level departments and divisions of the MOH, the provincial and central hospitals as well as the Institute Francophone pour la Médecine Tropical (IFMT).

The Provincial Hospital of Thakhek will play an important role as a referral hospital. The NGO Amitié Cooperation Franco Lao supports and will further develop the Thakhek Provincial Hospital at least until 2007. Two surgeons and two anaesthetists will complete their training at Mahosot Hospital in late 2004. NTPC will support training of other staff active in departments impacted by the Project (emergency medicine & nursing, bacteriology). Specific activities such as social marketing for condoms and antiretroviral treatment will be contracted out to other specialised NGOs.

Different vertical health program activities such as the Tuberculosis Program, the Expanded Program for Immunization and the Family Planning Program will be implemented in collaboration and with assistance of the existing support organisations (UNICEF, UNFPA, Damiaan Foundation, Global Fund, etc.).

Mass movement organization such as the Lao Women’s Union and the Lao Youth Union will be involved under DHO coordination, in promotional and preventive activities.

Since low utilization of health services in Lao PDR is mainly due to poor quality of services offered, financial and geographical inaccessibility and traditional and cultural beliefs on health events. Therefore the Resettlement and the Regional Health Program will put a lot of emphasis on improving human capacity, on developing management systems, on supporting infrastructure, equipment, transport, medical supplies and operational costs and also by giving technical assistance.

NTPC will provide technical assistance to the public health institutions for both overall coordination and for implementation of specific activities of the Resettlement and the Regional Health Programs. This technical assistance will be provided by NGOs contracted by NTPC in addition to the NTPC Program Management Unit. The NGO and the PMU involved in program coordination must have in-house expertise in the field of public health (health system management, health data processing and health financing) and preferably have working experience in the Lao PDR or the region. Presently in country sources of technical assistance appear sufficient. Technical assistance required for health program coordination will be funded as an NTPC staff cost.

Based on the approved and final PHAP a “Memorandum of Understanding” (MOU) will be signed by the different partners. The different partners will be the Ministry of Health, the Provincial Health Office of Khammouane, the SDP as well as the HCC. A draft MOU will be prepared and reviewed by the partners before approval of the final PHAP. This MOU will specify at least the following: each partner’s responsibilities, their contributions, the financial procedures, the procurement procedures, the different taxes applicable, the reporting procedures, the health related mandate and responsibilities of the Resettlement Committee and of the Program Management Unit.

Specific contracts will be signed with the different teaching/scientific institutions and NGO’s, to whom activities will be contracted out or with whom will be collaborated. It is proposed that the “Institut Francophone pour la Médecine Tropicale” (IFMT) plays an important role in surveys and in surveillance, as also in training. Other NGOs and their specific roles will be identified and formulated as appropriate.
5.9.2 The Lao Ministry of Health: Strategies and Organizational Charts

The Public Health Institutions of the Lao Ministry of Health will be responsible for the implementation of most of the activities of the Resettlement and Regional Health Program. This section gives a short description on the MOH Strategies and their Organizational Structure.

According to the Ministry of Health’s “Health strategy up to year 2020” discussion paper, the major goal of the Lao PDR health sector is to “free the country from the state of underdevelopment by the year 2020 and ensure that all Lao people have access to health care services.” Health programs described within this chapter are developed in accordance with the six major directions for the Lao Ministry of Health by the year 2020:

- strengthen the ability of health care providers;
- improve community-based health promotion and disease prevention;
- improve and expand hospitals at all levels and in remote areas;
- promote and strengthen the use of traditional medicine with the integration of modern and traditional care, ensuring the quality, safety and rational use of food and drug;
- promote the operational health research; and
- ensure effective health administration and management, self-sufficient financial system and establish health insurance fund.

In coordination with these MOH defined directions, the “Lao Health Master Planning Study” report of November 2002 identifies the “Very High Priority Programs”. This study was conducted by the LAO MOH. It received technical assistance from and was funded by JICA. The activities proposed by the Resettlement and the Regional Health Program are broadly in agreement with these “Very High Priority Programs” (cf. infra)

<table>
<thead>
<tr>
<th>List of Very High Priority Programmes (Short List)(MoH/ JICA 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLANNING AND MANAGEMENT</strong></td>
</tr>
<tr>
<td>(1) PM-1 Sector-Wide Coordination Programme</td>
</tr>
<tr>
<td>(2) PM-2 Capacity Building Programme for Health Management and Health Information System</td>
</tr>
<tr>
<td><strong>HUMAN RESOURCES DEVELOPMENT</strong></td>
</tr>
<tr>
<td>(3) HR-2 Programme for Improving Management, Allocation, and Motivation of Health Personnel</td>
</tr>
<tr>
<td>(4) HR-3 Programme of Reforming Job Descriptions of Health Personnel, Organization of the Government Health Sector</td>
</tr>
<tr>
<td>(5) HR-4 Programmes for Strengthening Regional/Provincial Education and Training Institutions for Health Workers</td>
</tr>
<tr>
<td>(6) HR-5 Programme for Reformulating Nurse Education Policies</td>
</tr>
<tr>
<td>(7) HR-9 Programme for Improving Quality of Teachers for Health Worker Education/Training</td>
</tr>
<tr>
<td>(8) HR-10 Programme for Reformulating Medical Doctor Education Policies</td>
</tr>
<tr>
<td>(9) HR-13 Textbook Development Programme for Nurse Education in Lao Language</td>
</tr>
<tr>
<td><strong>HEALTH FINANCE</strong></td>
</tr>
<tr>
<td>(10) HF-1 Financial Management Improvement Programme for the Health Sector</td>
</tr>
<tr>
<td>(11) HF-2 Programme for Reforming the Revolving Drug Fund and User Fee Systems</td>
</tr>
<tr>
<td><strong>HEALTH EDUCATION</strong></td>
</tr>
<tr>
<td>(12) ED-1 Radio Broadcasting Programme for Health Education</td>
</tr>
<tr>
<td>(13) ED-3 Programme for Promoting IEC Activities at District Hospitals</td>
</tr>
<tr>
<td><strong>INFECTIOUS DISEASE CONTROL</strong></td>
</tr>
<tr>
<td>(14) ID-2 Programme of Improving Skills in Diagnosis &amp; Care/Treatment of Infectious Diseases at District Hospitals and Health Centres</td>
</tr>
<tr>
<td>(15) ID-4 Programme for Integrating EPI and Other Health Services</td>
</tr>
<tr>
<td>(16) ID-6 Programme of Strengthening Control of HIV/AIDS and STDs</td>
</tr>
<tr>
<td>(17) ID-7 Programme for Strengthening Malaria Control and other PHC Activities</td>
</tr>
</tbody>
</table>
Primary Health Care

(18) PH-1 Programme for Supporting the Operationalisation of the “Policy of Primary Health Care”
(19) PH-2 Programme to Develop/Adapt Flexible Guidelines and Regulations for Strengthening District Health Systems based on the PHC Approach
(20) PH-3 Programme of Implementing the PHC Approach to Strengthen District Health Systems

Maternal and Child Health

(21) MC-1 MCH Networking and Coordination Programme
(22) MC-2 Programme for Strengthening and Promotion of MCH
(23) MC-3 Programme for Strengthening Family Planning

Nutrition

(24) NT-1 Programme of Developing a Core Organization for Providing Support and Oversight to Nutrition Activities
(25) NT-3 Nutrition Information/Education Programme

Hospital Services

(26) HS-1 District Hospital Improvement Programme
(27) HS-2 National Programme for Strengthening Maintenance System of Health Facilities by Provincial Maintenance Units
(28) HS-3 Hospital Management Improvement Programme

Medical Laboratory Technology

(29) ML-1 Programme for Strategy Formulation and Capacity Building for Health Technology-Based Medicine

Essential Drugs

(30) DR-2 Rational Use of Drugs Programme
(31) DR-4 Village-Level Revolving Drug Fund (RDF) Programme

Figure 5-7: Organizational Chart of the Lao MOH (under revision by MoH)
Low utilization of health services in Lao PDR is a generalized problem. It is mainly due to poor quality of the health facilities in the district. Coordinates, and supervises the health services in the district and provides (limited) logistic support to basic inpatient care with 10-15 beds, mother and child services. The District Health Office organizes, Hospitals. They are comparable to a Health Centre in many other countries. They provide outpatient and major surgical cases. It has an intensive care unit and a blood bank.

Figure 5-8: Provincial to Village Level Organizational Arrangements (MoH revising)

5.9.3 Public Health Institutions in the NTPC Project Area

At present the District Hospitals of Nakai, Gnommalat and Mahaxay are typical examples of Lao District Hospitals. They are comparable to a Health Centre in many other countries. They provide outpatient and basic inpatient care with 10-15 beds, mother and child services. The District Health Office organizes, coordinates, and supervises the health services in the district and provides (limited) logistic support to the health facilities in the district.

Low utilization of health services in Lao PDR is a generalized problem. It is mainly due to poor quality of services offered, financial and geographical inaccessibility and traditional and cultural beliefs on health events.

A brief visit to the three DHs was not sufficient to allow evaluation of the quality of their services. It was however observed that Mahaxay DH was exceptionally clean for Lao standards and that most beds were occupied at the moment of the visit. This was not the case at Nakai and Gnommalat DH.

Thakhek provincial hospital, 62 km from the site of the planned Gnommalat municipality will receive most of the referred cases. For the moment it is having the capacity to deal with emergencies and most major surgical cases. It has an intensive care unit and a blood bank.
The following tables give some quantitative data on the different health institutions in the NTPC project area. As will be noted, Nakai has the highest number of health workers (VHV+TBA’s) per 1000 population, while Gnommalat is also above the provincial average. Mahaxay, with only 3.6/1000 remains below the provincial average at 4.1/1000.

**Table 5-34: Number of Health Institutions and Village Health Data by District**

<table>
<thead>
<tr>
<th>Khammouane Districts</th>
<th>Hosp. Level</th>
<th>PH beds</th>
<th>DH beds</th>
<th>No. HC</th>
<th>No. HC functioning</th>
<th>No. Villages</th>
<th>Poor Village &gt; 3 hrs to HC</th>
<th>VHV's</th>
<th>TBA's</th>
<th>Nr.health workers/1000 pop</th>
<th>Drug Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thakhek</td>
<td>PH</td>
<td>150</td>
<td>26</td>
<td>13</td>
<td>12</td>
<td>141</td>
<td>0</td>
<td>8</td>
<td>220</td>
<td>64</td>
<td>3,5</td>
</tr>
<tr>
<td>Mahaxay</td>
<td>DH</td>
<td>15</td>
<td>6</td>
<td>6</td>
<td>89</td>
<td>69</td>
<td>31</td>
<td>91</td>
<td>11</td>
<td>3,6</td>
<td>33</td>
</tr>
<tr>
<td>Nongbok</td>
<td>DH</td>
<td>15</td>
<td>10</td>
<td>10</td>
<td>72</td>
<td>20</td>
<td>0</td>
<td>72</td>
<td>72</td>
<td>3,3</td>
<td>29</td>
</tr>
<tr>
<td>Hinboon</td>
<td>DH</td>
<td>15</td>
<td>17</td>
<td>17</td>
<td>166</td>
<td>13</td>
<td>22</td>
<td>87</td>
<td>36</td>
<td>2,0</td>
<td>34</td>
</tr>
<tr>
<td>Gnommalat</td>
<td>DH</td>
<td>15</td>
<td>5</td>
<td>5</td>
<td>71</td>
<td>57</td>
<td>58</td>
<td>71</td>
<td>71</td>
<td>5,5</td>
<td>42</td>
</tr>
<tr>
<td>Bualapha</td>
<td>DH</td>
<td>15</td>
<td>4</td>
<td>3</td>
<td>82</td>
<td>78</td>
<td>52</td>
<td>93</td>
<td>30</td>
<td>5,4</td>
<td>11</td>
</tr>
<tr>
<td>Nakai</td>
<td>DH</td>
<td>15</td>
<td>5</td>
<td>5</td>
<td>67</td>
<td>49</td>
<td>48</td>
<td>100</td>
<td>70</td>
<td>9,1</td>
<td>20</td>
</tr>
<tr>
<td>Xebangfay</td>
<td>DH</td>
<td>15</td>
<td>7</td>
<td>6</td>
<td>50</td>
<td>2</td>
<td>0</td>
<td>105</td>
<td>10</td>
<td>4,7</td>
<td>46</td>
</tr>
<tr>
<td>Xaybuathong</td>
<td>DH</td>
<td>15</td>
<td>4</td>
<td>3</td>
<td>68</td>
<td>61</td>
<td>52</td>
<td>66</td>
<td>66</td>
<td>7,1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>150</td>
<td>146</td>
<td>71</td>
<td>67</td>
<td>806</td>
<td>349</td>
<td>271</td>
<td>905</td>
<td>430</td>
<td>4,1</td>
</tr>
</tbody>
</table>

*Data Source: PCU/MOH, Nam Saat/MOH, Dept, Food & Drugs/MOH*

These data are extracted from the HSIP Baseline Survey Report which dates from March 2004. The sources of the data are reports from different MOH. The data themselves are describing situations in 2002 and 2003.

Tables 5.38 – 5.41 of the HIA contain similar data but for the period 1997 (source: Pholsena et al, 1997).
Table 5-35: Health Personnel of Khammouane Province for Project Districts

<table>
<thead>
<tr>
<th>PERSONNEL</th>
<th>Personnel by Facility</th>
<th>Personnel by Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PHO</td>
<td>PH</td>
</tr>
<tr>
<td>Medical Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate level, higher</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>University graduate level</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Medical Doctor</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Dentist</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle-level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>21</td>
<td>17</td>
</tr>
<tr>
<td>Nurse</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Midwife</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Pharmacist</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Assistant Dentist</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Physiotherapist</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory Assistant</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Hygienist</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Prosthetics Assistant</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Low-level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>26</td>
<td>92</td>
</tr>
<tr>
<td>Midwife</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Technician</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Pharmacy Technician</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Non-Medical Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University and Higher Level</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Middle Level</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Primary Level</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Support Staff</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Contracted Staff (*)</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>102</td>
<td>198</td>
</tr>
</tbody>
</table>

Data Source: Baseline Survey Report - Health Services Improvement Project - MOH/WB – March 2004

Further information on Service Delivery, Activities and Demography by district, institutions and programs for Khammouane, Borikhamxay and for Xaybuli and Khantabuly District of Savannakhet Province can be found in Annexes 5-9, 5-10 and 5-11.

5.9.4 Organizations Supporting the Health Sector in the Project Area

Different Organizations are already active in Khammouane Province in the field of health and/or are planning different activities. A consultation meeting with several organizations was conducted by the taskforce at the MOH. The preliminary draft HIA and PHAP were shared with them. The following
organizations and projects were present: HSIP, ADB-CRM, PSI, NCCA, JICA, UNICEF, SSO, WHO. Afterwards the taskforce met some of the organizations on an individual base, collecting data on their actual and future projects.

The “Health System Improvement Project” will be active in different districts of Khammouane Province. The HSIP is a Lao Government Health Project, financed by an IDA Loan (World Bank). It will support the improvement of identified health institutions and health training institutions in 8 provinces of Central and Southern Lao PDR, and in Vientiane Municipality. Depending on need their support covers different aspects: civil works, equipment, capacity building, consumables and operational costs.

The MOH Steering Committee proposed that its planned support to Thakhek Provincial Hospital should remain. It was estimated at 568,000US$ of Civil Works and 318,000US$ of hospital equipment. This support is required for the improvement of departments whose well-functioning allows its role as a referral hospital.

The MOH Steering Committee decided to withdraw the proposed HSIP support to the construction and rehabilitation works of Mahaxay DH and Nakai DH. They requested the NTPC Health Program to be responsible for these works as both these institutions will play a major role in the implementation of the PHAP. The HSIP will shift this planned support to other Khammouane districts.

The HSIP plans to set aside limited funding for certain operational cost for Nakai, Gnommalat and Mahaxay Districts. These supports are conditional on specific requests, when no other funding is available. However, the HSIP is not yet effective (Oct’04) and that final appraisal is not planned before September 2005.

The Regional Health Program plans to rehabilitate the Gnommalat DH and develop new departments. Even so, Gnommalat is interested to get a new DH later as they will shift their municipality to a new site some 4 kilometre to the south.

At present Thakhek Provincial Hospital is receiving support from a French NGO “Amicitie-Cooperation Franco-Laotienne” (ACFL). They have constructed and equipped the new surgical wing and also provide some of the required medical consumables. Several times a year French health professionals come to perform specific interventions and provide training. ACFL also grants scholarships for such longer term trainings. It could play a role in the development of the curative referral system for the NT2 project area, and also in the field of training. It is likely they will continue their support in the coming years, certainly till 2007. The Regional Health Program will provide funds for a requested training in emergency medicine, bacteriology and wound dressing (2 staff/topic – 6m period).

Most vertical health programs implemented in the project area are already receiving support from different international organizations.

Table 5-36: Support to Vertical Health Programs by Organization

<table>
<thead>
<tr>
<th>Vertical Program Supported</th>
<th>Organization</th>
<th>Major types of Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Program of Immunization</td>
<td>UNICEF</td>
<td>Vaccines, operational costs</td>
</tr>
<tr>
<td>Malaria Control Program</td>
<td>Global Fund</td>
<td>IBN, Operational Costs, Trainings, Microscopes, Anti-Malaria drugs, etc</td>
</tr>
<tr>
<td>Tuberculosis Control Program</td>
<td>Global Fund, Damiaan Foundation</td>
<td>Anti-TBC Medicine, Microscopes, Operational Costs, Trainings</td>
</tr>
<tr>
<td>Reproductive Health</td>
<td>UNFPA</td>
<td>Family Planning Medicines, operational costs, trainings, IEC</td>
</tr>
<tr>
<td>STI &amp; HIV/AIDS control Program</td>
<td>ADB, Global Fund, PSI</td>
<td>Condoms, Social Marketing, IEC, STD Clinics</td>
</tr>
</tbody>
</table>

Some of these supports are countrywide while others are limited to specific provinces and districts. The inputs and support provided by these organizations is limited by their project periods and thus conditional to continuation and renewal of the country project or program.
The Resettlement and the Regional Health Program will give important support to all vertical programs and this with the objectives of covering the increased demand as well as to improve the quality of service delivery. They will provide utility vehicles to the three focal Districts and motorbikes to the 6 target HCs. They will also provide funding for perdiems and vehicle operation and maintenance in order to increase the number of integrated outreach activities.

Therefore that the different organizational supports need to be evaluated on yearly basis and should be considered during the yearly planning and budgeting exercise of districts and province for integration in the annual plans.

5.9.5 Critical Assumptions

As most of the activities are to be implemented by the Lao public health institutions the institutional development is an important underlying principal of the Resettlement and the Regional Health Program.

It is stated in many official documents, including those issued by the MOH that the main weakness of the Lao public health system lies in its human resources.

The following issues are regarded as the most important critical assumptions for the successful implementation of the Health Programs:

- The Ministry of Health assures the required staff both in number and by qualifications.
- The trainings provided are of a good quality. This includes the selection of the candidates, the content of the training to be problem based, the methodology to be as participative as possible.
- The Ministry of Health assures that the staff trained by the programs remain in the project districts.
- Staff of the local communities trained by the program are employed in the targeted institutions by the MOH.
- The language barrier between the health service providers and the resettled communities poses no problem.
- The preparative work (construction, rehabilitation, equipment, trainings) for the improvement of the Health Institutions to be finished before the commencement of the works and influx of workers.
- The Thakhek Provincial Hospital will continue to receive support from ACFL.
- The NTPC project area continues to get support in the field of Extended Program of Immunisation, Family Planning, Condoms and IEC on STI and HIV/AIDS, Tuberculosis Control Program from the existing support organizations.
- The developed and applicable health and environmental regulations (sanitations, food hygiene, dengue control, waste management, dust control, etc.) are enforced and respected by the HCC, the workers, the camp-followers and the local communities.

5.10 Sectoral Health Support

5.10.1 Infectious Disease Detection System and Outbreak Preparedness

A very important aspect is the development of an Infectious Disease Detection System and Outbreak Preparedness. A big influx of people is expected, ± 4000 workers and between 8,000 and 16,000 camp-followers (families and service providers). Some 2,000 workers will be Lao, others will come from...
neighboring countries (China, Vietnam, Thailand, Cambodia), another and much smaller group will come from overseas countries such as Australia, France, Italy, South Africa, etc.

The project with the support of the Lao government will try to balance restrictive measures of movements of workers and camp-followers with organizational and preventive measures. Efforts will be made to educate and change behaviour on different risk behaviours (promiscuity, hygiene, IBN, etc.). The project will provide the required sanitary facilities and domestic water supplies. Workers could be screened for certain contagious diseases.

Nevertheless changes of outbreaks of contagious or vector-borne disease are very real. There could be outbreaks of classical diseases as cholera, dysentery, malaria, dengue, etc. but also outbreaks of new emerging diseases such as SARS and bird flu.

Therefore the project will develop and support a Provincial Infectious Disease Detection System and Outbreak Preparedness. The infectious disease detection system is described in the section “Monitoring and Surveillance”.

A fund will utilize flexible procurement procedures in order to allow emergency purchases of inputs required in case of an outbreak. Certain items will be purchased beforehand; they are protective clothing, rapid skin thermometers and dengue spraying equipment.

5.10.2 Water supply and quality

Populations on the Plateau, and along the receiving river, the Xe Bangfai, are worried that the water quality of the lake might deteriorate due to anaerobic fermentation of the organic matter and might render the lake water unusable for human consumption and other domestic uses as has happened after filling of the Nam Ngum Reservoir.

Thus, in the Resettlement Area of the Nakai Plateau, the Project, through its resettlement infrastructure program, is responsible for:

- Provision of water-sources for the resettlement villages (see SDP Chapter 20);
- Assuring that the water quality of these water sources is safe for domestic use and complies with national standards.

The Pilot village program is testing different approaches which will be replicated in the future resettlement villages if proven successful. They consist of rainwater collection at household level, and piped water system originating in a new small reservoir (which will become part of the larger reservoir in the future) supplying filtered water to each group of three households (see chapter 20 for design). The tap water is the only source of water during the dry season and originates from the lake. In case the water quality of the lake deteriorates to the extent that the filtration system cannot cope, then the tap water system will have to be replaced by village boreholes. However, the reservoir clearance program should avoid the occurrence of such poor quality water, and the pilot village lake is an example where much of the biomass was removed, and provides good water for the villagers.

In villages along the Xe Bangfai, the mitigation and compensation program (see Chapter 41) includes the replacing of any domestic water-sources affected by the Project with alternative water sources.

Terms of Reference for the “Water Quality Monitoring and Assessment Program” have been developed under the responsibility of the Environmental Monitoring and Management Plan (Sub-Plan 4). These TOR specify all aspects of the quality control of surface water, of ground water, of the existing domestic water sources and of domestic water supply systems developed by NTPC. It specifies the frequency of the controls, the parameters to checked, the sampling methodology, the reporting requirements. In case conductivity values are in excess of Lao Water Quality Standard, further investigation including major ion analysis will be undertaken.

The testing requirements are based on the GOL resolution No. 953/MoH, on International standards and on WHO Guidelines.
At present the national strategy on drinking water for rural villages is that everybody should boil its drinking water. The MOH is finalizing a new strategy document defining guidelines and specification for the construction of domestic and drinking water-sources. This regulatory document is called “Regulations on Drinking Water Quality Standards Management”, it will be finalised by the third week of September 2004.

In collaboration with the division of Nam Sahaat (clean water for villages) of the MOH, the SDP has agreed on standardized design and quality specifications for domestic water sources. The same exercise will be done for sanitary facilities, and so will need to be finalized before their actual construction.

The PMU will collaborate with the RMU in monitoring the quality of the domestic water sources affected by the project and propose corrective measures if required.

5.10.3 Reproductive Health

Reproductive Health Issues are not grouped and presented in a separate list of planned activities. The PHAP regards the following Reproductive Health Subgroups as important to the NT2 project:

- STI and HIV/AIDS;
- Safe Motherhood (antenatal care, normal deliveries, Emergency Obstetric Care, post natal care);
- Family Planning; and
- Health Education on the previous issues, including sexual education for adolescent.

Only for Sexually Transmitted Infections (STI) and HIV/AIDS a specific group/ list of activities has been developed.

Nevertheless all other aspects will be covered extensively through activities in the newly developed and the improved facilities and also through integrated outreach activities.

As for the other health issues most of the services will be offered through the public health institutions and NTPC will support the improvement and functioning of these institutions.

The supported facilities will offer the type of services as proposed by the Core Package of Services (see Annex 5-4). Gnommalat Improved District Hospital will be equipped and staffed for EOC including Caesarean Sections.

Both the Resettlement Health Plan and the Regional Health Plan propose many prevention and control activities in the field of Sexually Transmitted Infections (STI) and HIV/AIDS. As for other activities detailed yearly planning and budgeting needs to be done on a yearly basis with the Health Districts and the Province in synchronization with their other activities. Many prevention and treatment activities are already taking place. The District Hospitals have newly equipped STI consultation offices and their personnel has been trained in the syndromic treatment approach.

An important issue is that most STI patients are searching their treatment from private pharmacies rather than from the public health institutions. Officially the private pharmacies (type 2) are not entitled to prescribe treatment for STI cases; this is specified by national guidelines. It should be recognised that in reality private pharmacies are the main service providers for STI. Preferably they should get training in the syndromic approach and be involved in data collection on this topic.

Population Services International (PSI), a NGO, is specialised in social marketing of condoms and public awareness campaigns. They are active already very in the project area. NTPC and the HCC should consider further collaboration with PSI.

Condoms need to be made available at hot spots (restaurants, bars, etc.) and not only in pharmacies and public health services which are not accessible at night.
The STI and HIV/AIDS is regarded as a very important topic needing urgent attention. Therefore NTPC will support health education activities and condom promotion starting from September 2004. A rapid assessment fact finding mission will determine the size and the location of the target groups (workers, campfollowers, bars, etc.) at that moment.

Antenatal and postnatal care will be assured through integrated outreach activities and at the ICHC and the DH.

Delivering by trained health professionals and in health institutions will be promoted. The ICHC for the resettlement population will be receiving training, equipment and a tuktuk vehicle. They will have a specific room equipped for antenatal care and deliveries. This will allow them to conduct normal deliveries and to transfer cases.

In case that Emergency Obstetric Care is required women will be referred to the DH of Nakai or to the Gnommalat Improved DH for Caesarean section. The transport can be assured by the HC tuktuk, by the utility vehicle of Nakai DH or the ambulance of Gnommalat.

The supported DHs and Gnommalat Improved DH will offer similar transfer and referral services to the non-resettlement population.

In the whole project area Family Planning Services are provided by the public health institutions (VHV level up to DH level). UNFPA is providing all contraceptives free of charge and has trained different levels of service providers. Funding till 2006 is secured by ADB, JICA and the Global Fund. Funding through 2006-2011 is secured by the UN Development Assistance Framework (UNDAF), catering to the needs of the 20 Least Developed Countries.

The country program responsible for the free provision of contraceptives started in 2002 and will end in 2006. Thereafter the GOL is requested to contribute to the cost of the contraceptive medicine. For the moment a lot of the funding for contraceptives is coming from JICA.

Health Education on the different Reproductive Health topics will be implemented through the already planned integrated outreach activities and specific health education activities.

UNFPA in collaboration with UNICEF and the Ministry of Education do have a pilot project on Education of Sexual Health and Reproductive Rights in certain primary and secondary schools of some provinces. In Mahaxay and Gnommalat three primary schools and one secondary school are supported through UNICEF. The teachers are trained in teaching a package which is called “Life Skills”. NTPC will promote similar activities in the schools of the target populations notably those close to the construction site and work camps through the services of NGO’s such as PSI or CARE. One MOE official is to be trained to head the Provincial Drug Control Unit. This person will conduct IEC sessions in the target schools mentioned.

The HCC has a very important role to play in the control and prevention of STI and HIV/AIDS. The Owner’s Requirements of the EAMP specify their obligations on screening for STI’s and on health education activities. The Project Staff Health Plan will specify the required health activities in detail. As workers and camp-followers are now arriving in the area for the preparative construction works, the HCC has already started with health education plus condom promotion and distribution. Upon reception, all workers will be clinically checked for STI’s, with Voluntary Counselling and HIV Testing available.

The different fields of reproductive health provided by public health professionals in the area will follow trainings as required. Staff at HC and DH level may e.g. receive intensive training in delivery practices.

5.10.4 Traditional Health Practices

Based on previous surveys and common knowledge it is assumed that the possible impact of the NT2 project on Traditional health practices will be limited to the Nakai Resettlement Population.
Chapter 5: Health Impact Assessment and Public Health Action Plan

1. In the Xebangfai area the issue is regarded as not pertinent:
   - Baseline surveys in that area have shown that many people have shifted from traditional health practices to the use of modern medicine;
   - The current traditional health practices should not be influenced notably through the NT2 project (little impact on vegetation and curative public health services).

2. In the Nam Theun Watershed area the issue is not regarded as important:
   - The NT2 project will have little impact on the practice of traditional medicine. Neither flora nor fauna will be disturbed by the NT2 project. Therefore availability of ingredients will remain as before.
   - The accessibility to public health institutions and services would not change notably;
   - Within this remote area traditional health practices are still very important in comparison to the use of modern medicine.

3. For the Nakai Plateau population the possible impact of the NT2 project on their use of traditional health practices has been assessed:
   - The importance of traditional medicine has been assessed;
   - The plants and other sources for the ingredients of Traditional Medicine growing exclusively (or almost) on the Nakai plateau will be identified.

NTPC has conducted a preliminary study and has planned a complementary survey for 2005, to look in more detail at Traditional Health Practices on the Nakai Plateau. The first preliminary conclusion is that biomedicine seems gradually to win the argument over the value of traditional medicine. This is certainly the case with the more magical practices, but even with herbal remedies. Only the elder and the remote now still seem to believe in it (see Annex 5-5).

The TOR of the full assessment include the following topics:

- Identification of the traditional health practitioner;
- Identification of the most common traditional health practices used;
- Identification of the ingredients for traditional medicine which are found (almost) exclusively in that area of the Nakai Plateau that will be flooded (ie, below 538 EL). The names of plants should be specified in Lao and Latin names, and if possible English;
- Specify their importance for the essential and common traditional health practices;
- Assess and specify whether these ingredients could be grown in a botanical garden (herbariums) in the resettlement area and whether there are special conditions for growing; and
- Describe the relative importance of traditional health practices as compared to modern medicine.

The Resettlement Health Plan has budgeted for regular monitoring of traditional health practices and the availability of ingredients; it proposes to develop a botanical garden/herbarium for growing plants, used in traditional medicine but soon threatened by the flooding of the plateau.

5.10.5 Financial accessibility

The 3 concentration districts are amongst the poorest in the country. Nakai and Gnommalat Districts received a national poverty rating as very poor and Mahaxay as poor. Khamkheut district is also classified as very poor.

It doesn't need much explanation that financial accessibility will limit the utilization of the provided health services even if quality improves. Therefore the Resettlement and the Regional Health Program will try to assure financial accessibility for their target communities.

The Resettlement Health Program will reimburse direct health costs for the patients identified as poor. Such “Equity Funds” are financial schemes which compensate the health institutions for services provided to the poor. It will likewise fund the indirect costs incurred by the patient or their family (food, transport, opportunity costs). The Fund is managed by a third party (e.g. CARE) and as such insures the so called “purchaser-provider split”. A more detailed explanation is found in Annex 5-3.
The PMU will be responsible for the planning, the setting up and the supervision of the Equity Funds. The monitoring and surveillance system will monitor financial accessibility and utilization of health services by the poor.

Specifically for the Resettlement Health Program the health services for all recent resettlers will be free of charge for the first 3 years. After that period only the poor families will be identified and continue to receive free health care through the Equity Fund. Poor families covered by the Regional Health Program can claim compensation for illness episodes agreed by the Fund management to be due to the Dam’s impact.

Contingent on Mid-term Review recommendations, the health program could support the Districts with the development of Community Health Insurance.

5.11 RESETTLEMENT HEALTH PROGRAM

The Objectives of the Resettlement Health Programme are the following:

- To prevent and mitigate significant adverse health effects due to the resettlement;
- Improve the health situation of the local population.
- Build the capacity of the Public Health Institutions for addressing their target populations’ needs

The projected time frame for the Resettlement Health Programme is 8 years. It will start 6 months prior to the expected day of the financial close. This will allow to prepare (capacity building, purchase of equipment, infrastructure works) and to be ready before the first resettlement takes place (see time frame for resettlement Table 5-45). It will also permit to provide certain health services to this population while they are still living in their old villages, as such reducing the burden of living in doomed villages. The program will end 5 years after the dam has started to operate. Continuous monitoring for long term effects might be required after the 10 year period.

Table 5-37: Time Frame Resettlement Activities

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</thead>
<tbody>
<tr>
<td>1 Establish Pilot Village</td>
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<tr>
<td>2 Establish a 2nd Pilot Village (tentative)</td>
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<tr>
<td>3 Topographic and soils surveys</td>
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<tr>
<td>5 Detailed Resettlement Planning</td>
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<tr>
<td>6 Relocation - village group 1</td>
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<td>7 Relocation - village group 2</td>
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<td>8 Livelihood development</td>
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<tr>
<td>Develop irrigation: Nong Boua and Nam Pan only</td>
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<td>Develop irrigation schemes</td>
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<td>Agriculture: non-irrigated</td>
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<td>Agriculture: irrigated</td>
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<td>Forestry</td>
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<td>Construction related work</td>
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<td>Tourism and other services</td>
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</tbody>
</table>

The prevention and mitigation activities will address the expected health effects identified in the Health Impact Assessment and are grouped by Environmental Health Area.

Most of the planned activities will be directly implemented by the public health institutions of the target areas at district and provincial level. Other activities as surveys, specific trainings, social marketing, and policy development will require the support of national health program departments at central level, non-governmental organisations and training institutions. Mass movement organizations such as Lao Women’s Union and Lao Youth Union will support health promotion activities.
Different aspects will necessitate inter-sectoral collaboration with schools, agricultural departments, road traffic police, drink water provision and others. The detailed planning of this collaboration will be done during the initial phase of the implementation.

As most of the activities will be implemented by district public health institutions and programs, the Resettlement Health Program will put a lot of emphasis on improving their capacities in the required fields. This will include the following supports: human capacity building, development of management systems, infrastructure, equipment, transport, medicine and medical supplies, operational costs, technical assistance.

Most of the planned activities are included in the different vertical national health program policies. Therefore the Resettlement Health Programme will at District level facilitate and strengthen all national (vertical) health programs that are in place for:

- Curative Care
- Malaria
- Dengue
- Tuberculosis
- Sexual Transmitted Infections
- HIV/AIDS
- Soil transmitted helminths
- Expanded Programme of Immunization
- Maternal Health Care
- Nutrition and micronutrients
- Sanitation
- Clean water supply
- utilization of iodised salt
- vitamin A distribution

The program will focus first on programmes that, if executed appropriately, are designed to mitigate the potential health impacts identified within this document.

Most of these programs are identified as “very high priority” in the JICA produced Lao Health Master Planning report of 2002 (Japan International Cooperation Agency (JICA) and Ministry Of Health, 2002).

For reasons of quality, continuity, effectiveness and efficiency the health institutions will implement most of the service delivery activities in an integrated and comprehensive way.

The “Health Services Improvement Project” developed a “Core Package of Services” by level of public health institution. Both the Resettlement and the Regional Health Programme will adopt this core package as the standard when supplying the targeted health institutions (HC, DH, Inter-DH).

The Resettlement Health Program will focus only on the “Possible Impact Areas/Target Groups”, PIA/TG #1, the “Plateau Resettlement Population”. There are ±5,700 persons coming from 17 villages which will be flooded. They will be resettled in 14 newly to be constructed villages and 1 pilot village (already constructed and in use) in the resettlement area along the Southern border of the future Nakai Reservoir. (See map 5-8) The activities of the Resettlement Health Programme will be geographically limited to this area in Nakai District.

The health services of the resettlement population will be covered for by the Nakai District Hospital, by two to be constructed Health Centres and by integrated PHC outreach activities to their villages.
The precise site of implantation of the new HCs still has to be decided but is proposed to be close to the far end villages from the District Hospital. No resettlement villagers will have to travel further than 8 km to the nearest health facility. Initially the catchment population of this HC will be only around 1,000 persons. This might however increase fast when spontaneous resettlers will be attracted by different opportunities the lake will offer.

Nakai District Hospital will be rehabilitated and provided with all equipment required to offer the health services type B (HSIP classification, see Annex 5-7).

Gnommalat Inter District Hospital will be the referral hospital offering the complementary health services as listed in the Core Package of Activities for District Hospitals. The programme provides an ambulance to Gnommalat Inter-DH and a utility vehicle to Nakai DHO and will fund the operation costs. Referral protocols and procedure need to be developed.

Though many persons of this target group belong to different ethnic minorities most of them do speak and understand enough Lao to communicate with the public health staff. The programme will train some 4-6 local persons as Primary Health Care workers, a 3 year training. They will be employed by the MOH to work in the 2 ICHC of the resettlement area. During selection of candidates ethnic minority languages skills should be one of the criteria. Certainly if observed that access to health services is hampered because of language.
Figure 5-9: The Plateau Resettlement Area and Implantation of Health Institutions
The 2 new resettlement HCs will be developed as Integrated Community Health Centres (ICHC). ICHCs are providing the Minimal Package of Activities (MPA) in an integrated, comprehensive, continuous and accessible way. A detailed development plan has been developed by the “Health System Reform and Malaria Control Project (World Bank -BTC)” and covers the following aspects:

- Develop Active Community Participation through Zonal Health Committees
- Assure capable and motivated personnel speaking the local language (capacity building and motivation schemes)
- Provide required and adapted technical, administrative management and monitoring systems
- Develop a financing system assuring financial accessibility (balancing accessibility with sustainability through equity fund, community based health insurance)
- Conduct family census and introduce family files
- Assure required Infrastructure (buildings, water, sanitation electricity)
- Assure a steady supply of medical and non-medical consumables
- Provide required medical and non-medical equipment
- Provide transport for outreach activities and transfer of patients
- Provide operational funds
- Assure adequate support and supervision by DHO (PHO)

Financial accessibility will be guaranteed by the programme. Initially health services for recent resettlers (first 3 years) will be free of charge. After that period poor families affected by the project works will be identified and receive free health care as well.

The programme will set up an “Equity fund” for reimbursing direct and indirect health costs for these groups. Equity funds are financial schemes which reimburse the institutions for services provided to the poor and fund some of the indirect costs incurred by the patient or their family (food, transport, opportunity costs). They are managed by a third party (NGO) as such insuring the purchaser-provider split. (for further information see Annex 5-3)

Subject to mid-term review recommendations, the programme could support the District with the development of a Community Health Insurance.

Some of the villages which will be flooded will not shift before late 2007. The programme will support the delivery of health services to these villages through outreach. The situation of their domestic water sources will be evaluated. The programme will consider the construction of wells to certain of these villages given the importance of the water problem and the delay before resettlement (cf. Resettlement Infrastructures Development Plan /Chap 20).

5.11.1 Activities, Implementing institutions, specific inputs, indicators and their sources

This section will describe the different activities grouped by the EHA of this programme. All activities and supports are targeted at the resettlement population of the Nakai District Resettlement area.

The planned activities are listed in 9 groups, 8 for each EHA and 1 for support to the public health institutions and programs. The grouping by EHA results in some repetition of activities. It does however allow for cross-reference with the EHIAs of the HIA and simplifies verification whether all possible adverse effects are covered by prevention and/or mitigation activities.

For each activity the institution(s) responsible for its implementation is (are) mentioned.

After each of the activity groups we will list the objective verifiable indicators and specific inputs required for those activities. As such too much repetition is avoided.

With specific inputs we mean those inputs which are required solely for that group of activities.
For each of the listed indicators the source is mentioned. Source “Special System” means that this information is not found in the HMIS or WESR and needs to be retrieved from the registers or from a special collection system.

**Respiratory Diseases (Resettlement Program)**

Geographical location: Nakai Resettlement villages and Oudomsouk.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC on prevention and management of ARI and Tuberculosis (development and providing of adapted materials and implementation)</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
<tr>
<td>Implement the national EPI program at the institutions and through outreach.</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Ensure that design of new housing constructed in resettlement areas have separate, ventilated kitchen areas</td>
<td>Resettlement Infrastructures Devt</td>
</tr>
</tbody>
</table>

**Diagnosis and Detection**

<table>
<thead>
<tr>
<th></th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the Tuberculosis laboratory of Nakai DH diagnostic capabilities in a collaborative approach with the 3 Districts</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Conduct contact tracing of all patients diagnosed with active TB through visits to the patient's village to interview and examine family members and close relatives</td>
<td>DHO</td>
</tr>
<tr>
<td>Sputum collection at HC level without required hospitalisation of the patients (in the 2 new Resettler ICHCs)</td>
<td>HC, DHO, PHO</td>
</tr>
</tbody>
</table>

**Treatment**

<table>
<thead>
<tr>
<th></th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>Assure treatment of ARIs through the HCs and the DH</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Assure DOTS treatment at DH level</td>
<td>DHO</td>
</tr>
<tr>
<td>Pilot the DOTS treatment at HC level with support of the VHV</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
</tbody>
</table>

**Capacity building**

<table>
<thead>
<tr>
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<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>Capacity building of the health care providers of the 3 districts and of the HCC after need assessment in the following domains:</td>
<td>DHO, PHO, MOH central level</td>
</tr>
<tr>
<td>- National DOTS program (promotion, prevention, treatment, monitoring, program management)</td>
<td></td>
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<tr>
<td>- Required laboratory skills</td>
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<tr>
<td>- Behavioural Change Communication</td>
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</tbody>
</table>

**Monitoring and Surveillance**

<table>
<thead>
<tr>
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<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Quality Control of BK laboratory examinations at the District Hospital</td>
<td>PHO</td>
</tr>
<tr>
<td>Conduct a KAP survey at the beginning of the operation including issues on ARI and Tuberculosis.</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Assure monitoring and surveillance of respiratory health covering ARIs and TBC through HMIS and through vertical reporting system for TBC indicators</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
</tbody>
</table>

**Specific Inputs**

- Anti-Tuberculosis Drugs
- Microscope and laboratory consumables for KB examination in District Laboratories
Operational Cost for training and outreach activities related to the TBC Control Program.

Vaccines and consumables for EPI

All inputs required for the TBC Control Program are funded by the Global Fund and the Damiaan Foundation. Vaccines and consumables for the EPI program are financed by UNICEF. Both groups of inputs are conditional to renewal of the country programs of those organisations.

Indicators

Disease Indicators
- Number of new LRTI cases
- Number of deaths due to ARI
- Number of deaths due to TBC
- Number of measles cases
- Number of diphtheria cases
- Number of whooping cough cases

Activity Indicators
- Proportion of persons trained in relation to planned
- Number of BCC activities by target group
- Number of pharmacists trained in correct ARI treatment
- Number of active contact tracings done
- Number of positive contacts treated
- Number of HC in Target areas offering DOTS
- Number of patients having sputum collected at ICHC level
- Number of resettlement houses with good ventilated kitchen

Sources

HMIS, VSSS
HMIS, VSSS
TBC report, VSSS
HMIS, WESR, VSSS
WESR, VSSS
Activity reports
Activity reports
TBC program report
TBC program report
TBC program report
Activity reports

Vector-related diseases (Resettlement Program)

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct education programs regarding the prevention and treatment of Dengue (including the provision of health education materials on Dengue)</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
<tr>
<td>Conduct village campaigns supporting the elimination of Dengue larvae breeding grounds</td>
<td>VHV, HC, DHO</td>
</tr>
<tr>
<td>Conduct education campaigns annually regarding the prevention and treatment of Malaria, more specifically on the use of Long-Lasting Impregnated Bed Nets (LLIBN)</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
<tr>
<td>Assure 100% coverage by Impregnated Bed Nets (IBN) to all resettlement villages of Nakai District through provision and replacement of LLIBN</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Conduct IEC campaigns regarding the prevention of leptospirosis (only in case the leptospirosis proves to be an important cause of diseases (studies on fever of unknown origin))</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Develop and Implement waste management plans for all resettlement villages of Nakai District</td>
<td>EnvMonit&amp;MngtPlan Sub-Plan 12</td>
</tr>
</tbody>
</table>

Diagnosis and Detection

Assure Malaria Testing at HC and DH level (antigen test and/or microscopy) | HC, DH

Treatment

Assure adequate malaria treatment at HC and DH level (considering parasite resistance) | HC, DH

Assure adequate treatment for Dengue Fever, Dengue Hemorrhagic Fever, Dengue Shock Syndrome and other disease with fever as presenting argument at HC and DH level (including transfer to PH if required) | HC, DH, PH

Capacity Building
Provide training for health care providers regarding prevention strategies, and appropriate diagnostic and treatment protocols for malaria, dengue (DF, DHF, DSS) and other diseases with fever as presenting argument (Resource: Diagnosis and Treatment in district hospitals, Ministry of Health in Lao P.D.R., 2nd edition, 2004) also for PH.

| Capacity building of the health care providers of the Nakai district after need assessment in the following domains: |
| National Malaria and Dengue Control Programs (promotion, prevention, treatment, monitoring, program Management) |
| Required laboratory skills |
| Behavioural Change Communication |

| PH, PHO, CMPE |

### Monitoring and Surveillance

| Conduct Quality Controls for laboratory examinations | DHO, PHO, CMPE |
| Supervise compliancy with established medical diagnostic and treatment protocols for Malaria, Dengue and other diseases with fever as presenting argument | DHO, PHO |

**Specific Inputs**

- Dipsticks for Malaria detection
- Operational costs for malaria blood slide examination quality control
- Long Lasting Impregnated Bed Nets
- Operational cost for distribution of LLIBN

Some inputs for Malaria Control activities are provided by the Global Fund. During implementation detailed planning should avoid possible overlapping and coordinate activities. These inputs are conditional to renewal of the Global Fund country program.

**Indicators**

<table>
<thead>
<tr>
<th>Malaria disease indicators</th>
<th>Sources</th>
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</thead>
<tbody>
<tr>
<td>Number of Malaria cases</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to Malaria</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Nr of BS or dipstick done</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of Malaria Negative Fever cases</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of pregnant women with Malaria</td>
<td>VSSS</td>
</tr>
<tr>
<td>Number of Malaria outbreaks</td>
<td>WESR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Dengue disease indicators</th>
<th>Sources</th>
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</thead>
<tbody>
<tr>
<td>Number of suspected Dengue cases</td>
<td>HMIS, WESR, VSSS</td>
</tr>
<tr>
<td>Number of Hemorrhagic Dengue Fever (DHF) cases</td>
<td>WESR, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to Dengue</td>
<td>HMIS, WESR, VSSS</td>
</tr>
<tr>
<td>Number of Dengue outbreaks</td>
<td>WESR</td>
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<table>
<thead>
<tr>
<th>Other disease indicators</th>
<th>Sources</th>
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</thead>
<tbody>
<tr>
<td>Number of cases of leptospirosis, of tyfus</td>
<td>Survey</td>
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<tr>
<td>Prevalence of schistosomiasis, of opisthorchiasis</td>
<td>VSSS</td>
</tr>
</tbody>
</table>

**Activity indicators**

| Proportion of staff trained per subject in relation to training plan | Activity reports |
| Village cover with BCC sessions on Malaria and Dengue prevention | Activity reports |
| Village cover with BCC sessions on Typhus and Leptospirosis prevention | Activity reports |
| Household coverage of LLIBN | VSSS |
| Coverage of Dengue outbreak villages by spraying | Activity reports |
| Village cover for treatment of Aedes breeding sites | Activity reports |
| Proportion of inpatient fever cases correctly treated (by diagnosis) | Supervision rep. |
| Number of blood transfusions for Dengue or Malaria | Lab reports |
### Chapter 5: Health Impact Assessment and Public Health Action Plan

**Sexually Transmitted and Blood Borne Infections (Resettlement Program)**

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
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</thead>
<tbody>
<tr>
<td>Provide and implement BCC programs regarding STI/HIV-AIDs and prevention strategies (including provision of IEC materials)</td>
<td>HC, DHO, DCCA, PHO, PCCA, PSI</td>
</tr>
<tr>
<td>Implement comprehensive school-based HIV/AIDS and sex education programme</td>
<td>DHO, DCCA, PHO, PCCA</td>
</tr>
<tr>
<td>Implement the national guidelines/policy for the control of blood-borne pathogens (proper disposal of sharps, autoclave equipment, in house medical waste collection, destruction and storage)</td>
<td>HC, DH, DHO, PH, PHO, Dpt. Hyg.</td>
</tr>
<tr>
<td>Implement Hepatitis B Vaccination of Children through the national EPI program (DTP + Hep B)</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Provide condoms and educate regarding use and disposal, targeting high risk groups. (Free of charge and/or through social marketing e.g. by contracting an NGO)</td>
<td>HC, DHO, PHO, PSI</td>
</tr>
</tbody>
</table>

#### Diagnosis and Detection

**Treatment**

| Provide correct treatment for STIs through the HCs and the DH | HC, DH                                      |
| Provide VCT and ARV therapy for seropositive resettler patients | MSF, through CARE. |

#### Capacity building

| Educate concerned workers regarding hazards of medical waste handling and the uses of appropriate personal protective equipment. | DHO, PHO |
| Capacity building of the health care providers of the 3 districts and of the HCC after need assessment in the following domains: | PH, PHO, PCCA, Savannakhet PH, MSF |
|   − National HIV/AIDS and STI program (promotion, prevention, treatment, monitoring, program Management) |                       |
|   − required laboratory skills |                                    |
|   − HIV counselling |                                         |
|   − Behavioural Change Communication |                                    |

#### Monitoring

| Supervise compliance with blood borne pathogens/infection control program | DHO, PHO, MOH |
| Supervise compliancy with established medical diagnostic and treatment protocols for curable STI's | DHO, PHO, MOH |
| Monitor blood borne pathogen exposure accidents | DHO, PHO |

#### Specific Inputs

- DPT-Hepatitis B vaccines
- Condoms, VCT, ARV's
- Financing for school based education programs
- Finance PSI social marketing

Some inputs required for the HIV/AIDS and STI Control Program are funded by the Global Fund and an ADB project. During implementation detailed planning should avoid possible overlapping or gaps and coordinate activities. Vaccines and consumables (including Hepatitis B) for the EPI program are financed by UNICEF. Both groups of inputs are conditional to renewal of the country programs of those organisations.
### Indicators

#### Disease indicators
- Nr of different STI syndromes diagnosed: HMIS, VSSS
- Nr of new HIV infections: Survey, VSSS

#### Activity indicators
- Proportion of persons trained in relation to planned trainings: Activity reports
- STI correctly treated by syndrome: Supervision rep.
- STI treatments in public facilities: HMIS
- Number of BCC activities by target group (SW, drivers, workers, schoolchildren): Activity reports
- Condom use by target group (SW, drivers, workers, schoolchildren): Survey, VSSS
- Proportion of health institutions with correct waste management: Supervision rep.

### Food, Soil and Water borne diseases (Resettlement Program)

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC on drinking water systems, treatment of water and family latrines based on the MOH water and environmental sanitation program (including the provision of health education materials)</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>BCC programs regarding fecal/oral transmission of diseases, and transmission of helminthic diseases (opisthorchis, trichinosis, cysticercosis, ascaris, pinworm, etc.) (including the provision of health education materials)</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Provide domestic water sources (wells) to the old villages conditional to the seriousness of their water supply problem and the delay before resettlement</td>
<td>SDP, Infrastructural development program</td>
</tr>
<tr>
<td>Provide domestic water sources and sanitation to all households of the resettlement villages, complying with national standards and in coordination with Infrastructural development program</td>
<td>SDP, Infrastructural development program</td>
</tr>
<tr>
<td>Provide local markets with the following: 1) latrines, 2) waste receptacles and waste removal system 3) domestic water</td>
<td>Concession Agreement Village Infrastructure??</td>
</tr>
<tr>
<td>Include de-worming for children 2-6 during the integrated PHC activities</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Introduce and Implement the school deworming program</td>
<td>DHO, PHO</td>
</tr>
</tbody>
</table>

### Diagnosis and Detection

- Assure laboratory diagnostic capabilities required for diagnosing food, water, and soil borne infections at DH level: HC, DH, DHO, PHO

### Treatment

- Assure correct treatment of food, water and soil borne diseases at HCs and DHs: HC, DH

### Capacity Building

- Capacity building of the health care providers after need assessment in the following domains:
  - National Water supply, Sanitation, food hygiene and Control of Diarrhoeal Diseases Programs (promotion, prevention, treatment, monitoring, program Management)
  - Required laboratory skills
  - Behavioural Change Communication
- Provide training for health care providers regarding prevention strategies, and appropriate diagnostic and treatment protocols for food, water and soil borne diseases (Resource: Diagnosis and Treatment in district hospitals, Ministry of Health in Lao P.DR, 2nd edition 2004).

### Monitoring and Surveillance

Monitor prevalence of water, food and soil borne infections through routine HMIS data and Surveys (see section on "Monitoring and Surveillance") | HC, DH, DHO, PH, PHO, MOH

Test water quality of villages receiving new domestic water sources by project, at hand-over of the well and later yearly | EAMP, PHO, MOH

Monitor water quality of surface and ground water in the NT2 area (standards EAMP) | EAMP

### Specific Inputs
- Construction of latrines
- Construction of domestic water-sources
- Landfills
- Financing of BCC for food handlers
- Financing inspection and enforcement inspection visit for food handlers
- Financing school deworming program
- Financing operational costs for water quality inspections

### Indicators

#### Disease indicators
- Number of cases of acute diarrhoea
- Number of cases of dysentery
- Number of Deaths due to acute diarrhoea
- Number of outbreaks of food or waterborne borne diseases
- Number of cases of opistorchis
- Number of cases of intestinal worm diseases (survey???)
- Number of Hepatitis (A) cases

#### Activity indicators
- Proportion of persons trained in relation to planned trainings
- Village cover with BCC sessions on Water and Sanitation
- Village cover with BCC sessions on prevention and management of Diarrhoal Diseases
- Village cover with BCC sessions for food handlers
- Village cover with hygiene standard inspections of food handlers
- Proportion of schools covered by deworming campaign
- Proportion of children covered by school deworming campaigns
- Number of integrated PHC activities with deworming included
- Number of children dewormed through integrated PHC activities
- Coverage of households with access to domestic water
- Proportion of watersources by types of contamination
- Coverage of Households with toilets
- Proportion of campfollowers having access to domestic water
- Proportion of campfollowers having toilets
- Proportion of villages implementing waste management policy
- Proportion of health institutions implementing waste management
- Proportion of restaurants and food handlers/vendors complying with hygiene regulations

### Sources
- HMIS, WESR, VSSS
- HMIS, WESR, VSSS
- HMIS, WESR, VSSS
- HMIS, WESR
- VSSS
- HMIS, VSSS
- WESR, VSSS
- Activity reports
- Activity reports
- Activity reports
- Activity reports
- Activity reports
- Activity reports
- Activity reports
- Activity reports
- Activity reports
- Lab reports
- Activity reports
- Activity reports
- Activity reports
- Supervision reports
- Supervision reports
- Supervision reports
- Supervision reports
### Nutrition and micronutrients related issues (Resettlement Program)

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct BCC regarding adequate nutrition choices to avoid malnutrition and micronutrient deficiencies (including the provision of IEC materials)</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Conduct BCC on correct child weaning and child feeding practices adapted to changed types of food (including the provision of IEC materials)</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Implement Vitamin distribution programs (vitamin A, Folic Acid, FeSu) for children and pregnant women</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Collaborate with local villagers to develop alternate sources of sustainable protein to replace potential losses of fish as a staple in the local diet</td>
<td>HC, DHO, Dep of Agriculture (cf. SDP vol3/Chap 40)</td>
</tr>
</tbody>
</table>

#### Therapeutic Activities

<table>
<thead>
<tr>
<th></th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assure correct treatment of malnutrition and micronutrient deficiencies at HCs and DH</td>
<td>HC, DH</td>
</tr>
<tr>
<td>Provide supplementary feeding for malnourished children</td>
<td>HC, DH, DHO</td>
</tr>
</tbody>
</table>

#### Capacity Building

<table>
<thead>
<tr>
<th></th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity building of the health care providers of the 8 districts after need assessment in the following domains:</td>
<td>PHO, MOH, Division of nutrition, CMCH, CIEC</td>
</tr>
<tr>
<td>- Behavioural Change Communication</td>
<td></td>
</tr>
</tbody>
</table>

#### Monitoring and Surveillance Activities

<table>
<thead>
<tr>
<th></th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection and monitoring of nutrition status of &quot;Children under Five&quot; through integrated Primary Health Care Services (Growth monitoring)</td>
<td>HC, DH, DHO</td>
</tr>
<tr>
<td>Conduct nutritional status surveys of specific PIA/TG (see section on &quot;Monitoring and Surveillance&quot;)</td>
<td>DHO, PHO, MCHC,</td>
</tr>
</tbody>
</table>

**Specific Inputs:**
- Fund for nutritional supplements for malnourished cases
- Vitamin A
- Ferro Sulphate and Folic Acid
- Nutritional Surveys

Vit A for children (6-59 months) and for postpartum women is financed by UNICEF. This support is conditional to renewal of the country programs of those organisations.

### Indicators

**Disease Indicators**
- Proportion of nutritional status by type
- Number of Deaths presumed related to malnutrition
- Proportion of cases of current nightblindness
- Number of Beriberi cases
- Number of Anaemia cases

**Sources**
- VSSS
- Register, VSSS
- VSSS
- VSSS
- HMIS, WESR, VSSS

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*November 2004    Nam Theun 2 Project – Social Development Plan – Volume 1*
Activity Indicators

- Proportion of persons trained in relation to planned trainings
- Village cover by BCC sessions on nutrition and weaning
- Proportion of children having received Vit A supplement
- Proportion of postpartum mothers having received Vit A supplement
- Proportion of pregnant mothers receiving FeSu and FoAc Supplement
- Proportion of health institutions including growth monitoring in their PHC outreach activities
- Proportion of malnourished children receiving supplementary feeding

Accidents/injuries, chemical exposures and poisoning (Resettlement Program)

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide education programs regarding road safety, in collaboration with the Ministry of</td>
<td>MTCPC at District level, HIB, HCC, DHO, PHO</td>
</tr>
<tr>
<td>Transport, Construction Post and Communication (see Chapter 3 in EAMP)</td>
<td></td>
</tr>
<tr>
<td>Provide education programs for electrical safety in the house, in collaboration with the</td>
<td>MTCPC at District level, HIB, DHO, PHO</td>
</tr>
<tr>
<td>MTCPC</td>
<td></td>
</tr>
<tr>
<td>Provide education programs on correct management of pesticides and fertilizers (see</td>
<td>MoA at District level, DHO, PHO</td>
</tr>
<tr>
<td>Chapter 3 and Annex M in EAMP)</td>
<td></td>
</tr>
</tbody>
</table>

Treatment

- Provide first aid treatment for mechanical and chemical traumas and poisoning at the HCs and DH
- Develop and maintain a referral system for cases requiring transfer
  
<table>
<thead>
<tr>
<th>Capacity building</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>appropriate diagnostic and treatment protocols for accidents, injuries, chemical</td>
<td>hospitals</td>
</tr>
<tr>
<td>exposures and poisoning</td>
<td></td>
</tr>
</tbody>
</table>

Monitoring and Surveillance

- Monitor number of cases of mechanical and chemical injuries and exposures through HMIS
- Supervise compliance with established medical diagnostic and treatment protocols for accidents, injuries, chemical exposures and poisoning

Specific inputs

- Financing of different intersectoral BCC session
- Tuktuk
- Operational budget for tuktuk

Indicators

<table>
<thead>
<tr>
<th>Disease indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of traumas</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of RTA cases</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of poisoning cases</td>
<td>WESR, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to RTA</td>
<td>Register, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to other injuries</td>
<td>Register, VSSS</td>
</tr>
</tbody>
</table>
Chapter 5: Health Impact Assessment and Public Health Action Plan

Number of deaths due to poisoning  Register, VSSS
Number of deaths due to drowning  Register, VSSS

Activity indicators
Proportion of persons trained in relation to planned trainings  Activity Report
Number small surgery/dressing for injuries  HMIS, VSSS
Number of intermediate surgery for injuries  HMIS, VSSS
Proportion of cases transferred  HMIS
Number of coordination meetings with Traffic police  Activity Report
Village coverage with BCC sessions on Road and Electrical Safety  Activity Report
Village coverage with BCC sessions on safe use of pesticides and fertilizers  Activity Report

Psychosocial Disorders (Resettlement Program)

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC in schools on substance abuses</td>
<td>Prov. Drug control unit of Min. of Education</td>
</tr>
<tr>
<td>BCC on mental health for villages</td>
<td>DHO</td>
</tr>
<tr>
<td>Coordinate with the Community Development components of the Project</td>
<td>Resettlement Unit</td>
</tr>
<tr>
<td>− Respect existing indigenous and ethnic institutions, culture and practices in all aspects of resettlement (village allocation, housing, labour, etc.)</td>
<td></td>
</tr>
<tr>
<td>− Organize community events (sporting, cultural, handicraft) in order to strengthen the social tissue in the new villages</td>
<td></td>
</tr>
<tr>
<td>− Prevent uncertainties and stress through adequate information on the future through regular communication and consultation</td>
<td></td>
</tr>
<tr>
<td>Support the development and functioning of the District Committee for Drug Control</td>
<td>Resettlement Unit</td>
</tr>
</tbody>
</table>

Treatment

| Assure recognition of mental health problems at village level by VHV and HC               | VHV, HC                                                         |
| Assure recognition of mental health problems and limited treatment capacities at DH level and referral if required. | DH                                                              |
| Introduce a package of Psychotropic drugs at DH level.                                  | Dpt. Of Psychiatry                                              |

Capacity building

| Provide training for health care providers (VHV, HC) regarding preventive strategies, and appropriate diagnostic and treatment protocols for mental health problems. | Dpt. Of Psychiatry (Mahosot)                                    |
| Provide training for resource person of the provincial drug control unit of the MOE (drug abuse education in schools) | National Committee for Drug Control                             |

Monitoring and Surveillance

| Monitor the mental health situation through surveys                                     | MOH, PHO, Dpt. Of Psychiatry (Mahosot)                          |

Specific Inputs
- Development of a mental health training curriculum for HC and DH staff and for VHVs
- Psychotropic Drugs
- Support BCC in Schools
- Support District Committee for Drug Control
Chapter 5: Health Impact Assessment and Public Health Action Plan

Indicators

Disease indicators
Number of cases of mental health problems  VSSS
Number of substance abuse cases  VSSS
Number of injuries due to violence  VSSS

Activity indicators
Proportion of persons trained in relation to planned trainings  Activity reports
Village cover with BCC sessions on mental health  Activity reports
School cover with BCC on substance abuse for schoolchildren  Activity reports
Number of mental health cases correctly treated or referred  Supervision reports
Turnover of psychotropic drugs at DH level  DRF tallies
Nr activities deployed by the District Committee for Drug Control  Activity reports

Cultural Health Practices (Resettlement Program)

<table>
<thead>
<tr>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHO, resettlement unit</td>
</tr>
<tr>
<td>DH, DHO, PMU</td>
</tr>
<tr>
<td>PMU</td>
</tr>
<tr>
<td>MOH, PHO</td>
</tr>
</tbody>
</table>

Specific Inputs

- Design of cross-cultural health messages and materials
- Creation of Traditional Health Department
- Creation and maintenance of botanical garden

Indicators

Activity Indicators
Correct audience replies to post-session or survey questions  Activity report, surveys
Functioning of the Traditional Medicine Department  Activity report
Production (variety and quantity) of the botanical garden  Activity report
Utilization of Traditional Medicine in villages  VSSS

Support and Development of Public Health Institutions (Resettlement Program)

<table>
<thead>
<tr>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHO, DHO</td>
</tr>
</tbody>
</table>
## Develop Active Community Participation through Zonal Health Committees for 2 new HC

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define catchment areas for the 2 ICHC and the DH in the new resettlement area</td>
<td>DHO</td>
</tr>
<tr>
<td>Creation of Zonal Health Committees</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Study tour for committee members to existing ICHC (Champone or Longxane)</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Conduct family census and establish family file system</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Monthly zonal Health Committee Meetings</td>
<td>HC, DHO</td>
</tr>
</tbody>
</table>

## Provide required and adapted technical, administrative management and monitoring systems for 2 new HCs, DH and DHO

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapt ICHC management systems and required forms (see ICHC manual)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Provide Training in application of new system</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Develop a yearly activity plan by institution</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Assure technical support and supervision</td>
<td>DHO, PHO, PMU</td>
</tr>
</tbody>
</table>

## Develop and introduce a financing system for 2 new HCs

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing partial financial independence through income revenue systems (DRF, fee paying, community health insurance,) and GOL</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Introduce and support a Equity Fund system for poor patients</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Initial cost recovery will be based on a DFR</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Develop a transparent cost-recovery system with flat fees once quality of services is acceptable</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Decide on development of community health insurance during mid term review</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Adapt ICHC accounting systems and required forms (see ICHC manual)</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Provide Training in application of new system</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Develop a yearly budget by institution</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Assure technical support and supervision</td>
<td>DHO, PHO, PMU</td>
</tr>
</tbody>
</table>

## Ensure that the 2 new HC and the DH have the required number of capable staff able to speak the local language (capacity building and motivation schemes)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assure 3 professional health staff at the new HCs (1 MA, 2 nurses)</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>PHC worker training (8+3 Years) for 4-6 persons from the resettlement population, selection in collaboration with the zonal Health Committees and language sensitive.</td>
<td>Provincial nursing school of Thakhek</td>
</tr>
<tr>
<td>Basic nursing training (12+3 Years) for 2-4 persons from the resettlement population, selection in collaboration with the zonal Health Committees and language sensitive.</td>
<td>Provincial nursing school of Thakhek</td>
</tr>
<tr>
<td>Provide package of training to HC staff on management of HC and different PHC programs and technical trainings (diagnosis and treatment, DRF management, planning, HC hygiene, HC nursing practices, maternal care, EPI, etc.)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Study tour for staff from new HC and DHO to existing ICHC (Champone or Longxane)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Practical training for HC staff 2 times one month in existing ICHCs</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Training of DHO and DH staff will depend on training need assessment (see capacity building plan)</td>
<td>PHO + PMU</td>
</tr>
</tbody>
</table>
### Chapter 5: Health Impact Assessment and Public Health Action Plan

#### Assure continuity of services

| Ensure 24 hours a day, 7 days a week services at the HC and DH (overtime allowance) | HC, DH |

#### Assure integrated PHC outreach activities to villages

| 1 day outreach in each resettlement villages by every 2 months (2 staff, from HC or DHO) | HC, DHO |

#### Assure adequate support and supervision

| Support & supervision visit of DHO and DH by PHO 3 days monthly for team of 4 persons | PHO |
| Support & supervision visit of 2 new HC by DHO 3 days monthly for team of 3 persons per HC | DHO |
| Support & supervision visit of other HC by DHO 1 days monthly for team of 3 persons per HC | DHO |

#### Infrastructure (building including sanitation, water, electricity)

| Construction of 2 new HCs in the resettlement area | NTPC, PHO, DHO |
| Construction of 6 Staff houses (3 for each new HC) | NTPC, PHO, DHO |
| Rehabilitation of District Hospital of Nakai | NTPC, PHO, DHO |
| Rehabilitation of District Health Office of Nakai | NTPC, PHO, DHO |

#### Provide required medical and non-medical equipment 2 new HC and DH

| Provide Medical equipment and furniture for 2 ICHC (for list see ICHC development document) | PHO + PMU |
| Provide Medical equipment and furniture for DH (need to be assessed) | PHO + PMU |
| Provide Non-medical Equipment and furniture for 2 ICHC (for list see ICHC development document) | PHO + PMU |
| Provide Non- Medical equipment and furniture for DH and DHO (need to be assessed) | PHO + PMU |

#### Provide vehicles for 2 new HC, DH and DHO

| Provide a motorbike to each of the new HC and to the DHO (outreach, supervision) | PHO + PMU |
| Provide a tuktuk to each of 2 new HC (ambulance and outreach) | PHO + PMU |
| Provide an utility vehicle to Nakai DHO (support, supervision, ambulance) | PHO + PMU |

#### Assure financing and steady supply of consumables and operational costs for 2 new HC and for DH

| Provide an initial stock of Drugs and medical supplies (DRF) for 2 HC and DH (purchase through PHO) | PHO |
| Provide annually a fund for operational cost (stationary, office material, cleaning material, electricity, water, telephone, meeting costs) | NTPC |
| Provide annually a fund for functioning and maintenance of the vehicles (motorbike, tuktuk, car) | NTPC |
| Provide annually a fund for functioning and maintenance of equipment and infrastructure | NTPC |
| Provide funds for outreach activities (other than integrated) 3 days for 2 persons per month per HC | NTPC |
The HMIS and activity reports will provide all indicators required to evaluate these activities. The indicators will include utilization rates, coverage rates, input/activity indicators.

5.12 REGIONAL HEALTH PROGRAM

5.12.1 Objectives, time frame, impact areas and general approach

The Objectives of the Regional Health Programme are the following:

- To prevent and mitigate significant adverse health effects resulting from the immigration of construction worker and construction camp followers; and
- To mitigate significant adverse health effects due to the construction works and increased traffic; and
- To prevent and mitigate significant adverse health effects resulting from changes of water levels and flows; and
- Improve the health situation of the local population.

The projected Time Frame for the Regional Health Programme is 4 years intensive with a following 5 years of monitoring and on-going assistance. It will start at least 6 months prior to the expected day of the financial close. This will allow to prepare (capacity building, purchase of equipment, infrastructure works) so as to cope with big numbers of workers and camp-followers arrive. The program will end 5 years after the dam has started to operate. Continuous monitoring for long term effects might be required after the 10 year period.

During the first four years the program will emphasize on possible effects resulting from construction, construction related activities and from the concentration of people (workers and camp-followers). Afterwards the accent will shift to mitigation and monitoring of the possible adverse health effects resulting from the changes in water levels and qualities.

The mitigating activities will address the expected health effects identified in the Health Impact Assessment and are grouped by Environmental Health Area.

Most of the planned activities will be directly implemented by the public health institutions of the target areas at district and provincial level. Other activities as surveys, specific trainings, social marketing, policy development will require the support of national health program departments at central level, non-governmental organisations and training institutions. Mass movement organizations such as Lao Women’s Union and Lao Youth Union will support health promotion activities.

Different aspects will necessitate inter-sectoral collaboration with schools, agricultural departments, road traffic police, Nam Papaa and others. The detailed planning of this collaboration will be done during the initial phase of the implementation.

As most of the activities will be implemented by district and provincial public health institutions and programs, the Regional Health Program will put a lot of emphasis on improving their capacities in the required fields. This will include the following supports: human capacity building, development of management systems, infrastructure, equipment, transport, medicine and medical supplies, operational costs, technical assistance.

Most of the planned activities are included in the different vertical national health program policies. Therefore the Regional Health Programme will facilitate and strengthen all national (vertical) health programs that are in place:

- Curative Care
- Malaria
- Dengue
Chapter 5: Health Impact Assessment and Public Health Action Plan

The program will focus first on programmes that, if executed appropriately, are designed to mitigate the potential health impacts identified within this document.

Most of these programs are identified as “very high priority” in the JICA produced Lao Health Master Planning report of 2002 (Japan International Cooperation Agency (JICA) and Ministry Of Health, 2002).

For reasons of quality, continuity, effectiveness and efficiency the health institutions will implement most of the service delivery activities in an integrated and comprehensive way.

The “Health Services Improvement Project” developed a “Core Package of Services” by level of public health institution. The Regional Health Programme will use this core package as standard when supporting the targeted health institutions (HC, DH, Inter-DH).

Objectives, time frame, impact areas and general approach

The Regional Health Program will focus mainly on the following “Possible Impact Areas/Target Groups”, as identified in the HIA:

- PIA/TG #2: Downstream Channel and Nam Kathang Area
- PIA/TG #3: Xe Bangfai Riparian Area
- PIA/TG #4: Transportation Corridor
- PIA/TG #5: Camp followers

Geographically the program will be active in 8 Districts and 3 Provinces. However support will concentrate on the three districts of Nakai, Gnommalat and Mahaxay. Here risks for important adverse health effects are highest. Most construction activities and camps of workers and camp-followers will be located there. In this geographical area we will find the following PIA/TG: PIA/TG #2: Downstream Channel and Nam Kathang Area; PIA/TG; PIA/TG #4: Transportation Corridor; and PIA/TG #5: Camp followers.

This area will also be affected by changes in water levels and quality.

In Khamkheut District the important health effects expected will be due to construction activities, increased road traffic and concentration of people. They will take place along road 8b near the Nam Theun dam construction site and near the camps of workers and camp-followers.

In the Districts of Xayboli, Nongbok and Xebangfai the possible adverse health effects would be the result from changes in water levels and water quality in and along the Xebangfai river, the PIA/TG #3: Xebangfai Riparian Area. There will be no impacts before water discharge starts, this is planned to begin in the middle of 2009. In this area the Regional Health Program will limit its activities to:
• constructing alternative domestic water sources for households and villages who lost their existing sources
• monitoring and surveillance of vector population possibly affected by the water levels
• monitoring and surveillance of nutrition status
• development of outbreak preparedness

It is expected that Thakhek District and municipality will have few adverse health effects directly resulting from the NT2 project. Some impact is to be expected due to increased road traffic and increased night live and social/sex activities in drink shops, night bars and guesthouses.

The major impact will come from the increased burden on the Provincial Hospital. The PH will play a major role as referral hospital for the Districts of Nakai, Gnommalat and Mahaxay. The PHAP therefore proposes to train additional staff in relation to trauma and communicable disease.

Development of a health system covering primary, secondary and tertiary curative care. Due to the increased population and the increased health risks in the different EHA the demand for curative services in the project area will drastically increase. One of the major expected health problems will be injuries due to the construction works and increased road traffic. The biggest share of accidents/injuries and other diseases resulting directly and indirectly from the project are expected to happen in the districts of Nakai, Gnommalat and Mahaxay.

Figure 5-10: Location of 3 District Hospitals and Thakhek Provincial Hospital

At present all three district have District Hospitals with limited capacity offering mainly primary health care services. Officially they have 15 hospitalisation beds. They are classified as type B District Hospitals. The small size of the individual districts and the short distance to TKK this could suffice, however, in the context of the project, increased population and increased risk exposures, it will be necessary to develop in this area the following capacities:

• Intensive Care Unit, stabilization of injured patients prior to transfer;
• intermediate surgical interventions (fractures, wound-suturing,) and Emergency Obstetric Care;
• blood transfusion;
• X-ray examinations (extremities, spinal and thorax)

These services should be guaranteed on a continuous base, 24 hours a day, 7 days a week. Because this will demand an important number of staff with specific qualifications and because of the small size of the
districts, only one of the DH should be chosen to be upgraded and offer these supplementary services. The other DH could keep the same package of activities but need to improve the quality of their services. They will offer the services as proposed in the “Core Package of Service for District hospitals Type B” by the “Health Services Improvement Project” (see list in Annex 5-4). The Regional Health Program in collaboration with other organization will provide the necessary support for those improvements (infrastructure, training, equipment, operational funds).

The ideal would be to build and develop a new Inter-District Hospital at the site for the new Gnommalat municipality. This would be the best location for a new the upgraded hospital for the following reasons:

- It is central (17 km from Nakai, 12km from Mahaxay);
- The location of the biggest workers and camp-followers camp and near to the other camps;
- At the road junction of road 12 and road 8b.

At present however the district authorities have no concrete planning and timing for moving the town to the new site. At least for some years to come the biggest part of the population will continue to live near the existing DH.

We therefore propose that the Regional Health Program assumes the following tasks:

- Rehabilitate the existing DH of ;
- Develop a Intensive Care Unit (2-4 beds);
- Develop a Blood transfusion services (blood-bank, laboratory; 
- Develop X-ray and ultrasound facilities;
- Develop an operation theatre assuring intermediate surgical interventions, including emergency obstetric care;
- Develop a New Hospitalisation Ward for 10 extra beds.

Certain patients will need referral. Depending on the type of services required the patient will be referred to Thakhek provincial hospital, Savannakhet provincial hospital, Vientiane Central Hospitals or a hospital in Thailand. The regional health program will support the development of a referral system (ambulance, communication, referral protocols, operational funds, financing system).

**Thakhek provincial hospital**, 62 km form the site of the planned Gnommalat municipality will receive most of the referred cases. For the moment it is having the capacity to deal with emergency cases, most major surgical cases, it has an intensive care and a blood bank.

At present it depends a lot on support it receives from a French organisation “Amitié-Cooperation Franco-Laotienne”. Their support includes new infrastructures, training, equipment and consumables. Apparently the good functioning of the hospital depends a lot on the ACLF support.

The new “Health Services Improvement Project” (World Bank loan) plans to finance 568,000US$ of Civil Works and 318,000US$ of hospital equipment. This support is required for the improvement of departments whose well-functioning allows its role as a referral hospital.

**Savannakhet Provincial Hospital**, ±100 km south of Thakhek, has a bigger surgical capacity. It also has a CT scan. Certain cases could be referred there.

The **Nakhom Panom Provincial Hospital**, a Thai hospital is located just across the Mekong from Thakhek. They have a bigger medical and surgical capacity and also have a CT scan. They could play an important role for certain referral cases.

The Vientiane Central Hospitals and different Thai hospital will probably participate in the referral system. It is important that before the commencement of the works adequate referral protocols are developed.
As described above the HCC will be responsible to ensure the health and safety of his workforce. At the moment we do not know his “Project Staff Health Program”. Possibly he will plan to use certain services of the Lao public health institutions and might foresee some support to them.

Another important aspect is the development of an Infectious Disease Detection System and Outbreak Preparedness. A big influx of people is expected, ± 4000 workers and between 8,000 and 16,000 camp-followers (families and service providers). Some 2,000 workers will be Lao, others will come from neighbouring countries (China, Vietnam, Thailand,…) and from distant places as Australia, France, Italy, South Africa, etc.

The project with the support of the Lao government will try to control movements of workers and camp-followers. Efforts will be made to educate and change behaviour on different risk behaviours (promiscuity, hygiene, IBN, etc.). The project will provide the required sanitary facilities and domestic water supplies. Workers could be screened for certain contagious diseases. Nevertheless changes of outbreaks of contagious or vector-borne disease are very real. This could be outbreaks of classical diseases as cholera, dysentery, malaria, dengue, etc. but also outbreaks of new emerging diseases such as SARS and bird flu. Therefore the project plans to develop and support a provincial Infectious Disease Detection System and Outbreak Preparedness. The infectious disease detection system is described in the section “Monitoring and Surveillance”. Not knowing which diseases might cause outbreaks the programme will reserve an immediately accessible fund allowing emergency purchases of inputs required in case of an outbreak. Certain items will be purchased preliminary, they are protective clothing, rapid skin thermometers and dengue spraying equipment.

5.12.2 Activities, Implementing institutions, specific inputs, indicators and their sources

This section will describe the different activities grouped by the EHA of this programme. For each of the EHA activity groups the geographical locations will be specified.

The planned activities are listed in 9 groups, 8 for each EHA and 1 for support to the public health institutions and programs. The grouping by EHA results in some repetition of activities. It does however allow for cross-reference with the EHAs of the HIA and simplifies verification whether all possible adverse effects are covered by prevention and/or mitigation activities.

For each activity the institution(s) responsible for its implementation is (are) mentioned.

After each of the activity groups we will list the objective verifiable indicators and specific inputs required for those activities. As such too much repetition is avoided.

With specific inputs we mean those inputs which are required solely for that group of activities.

For each of the listed indicators the source is mentioned. Source “Special System” means that this information is not found in the HMIS or WESR and needs to be retrieved from the registers or from a special collection system.

Respiratory Diseases (Regional Program)

In the districts of Nakai, Gnommalat and Mahaxay all activities will be supported.

In Khamkheut District the camp-follower camps, the villages near to the workcamps and the transportation corridor will be covered by the promotional and preventive activities, the HCs responsible for those villages will benefit from the treatment, training and monitoring activities.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC on prevention and management of ARI and Tuberculosis (development and providing of adapted materials and implementation)</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
<tr>
<td>Implement the national EPI program at the institutions and through outreach.</td>
<td>HC, DHO</td>
</tr>
</tbody>
</table>

| Diagnosis and Detection | |

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### Improve the Tuberculosis laboratory diagnostic capabilities in a collaborative approach with the 3 Districts

| DHO, PHO |

### Conduct contact tracing of all patients diagnosed with active TB through visits to the patient's village to interview and examine family members and close relatives

| DHO |

### Treatment

| HC, DHO |

| Assure treatment of ARIs through the HCs and the DH |

| DHO |

| Assure DOTS treatment at DH level |

### Pilot the DOTS treatment at HC level with support of VHV

| VHV, HC, DHO, PHO |

### Capacity building

| IFMT, Dept. Cur. Med., Central Hospitals |

| Provide training for health care providers regarding appropriate diagnostic and treatment protocols for respiratory diseases (Resource: Diagnosis and treatment in district hospitals, Ministry of Health in Lao P.D.R., 2nd edition, 2004) |

| MOH central level |

| Capacity building of the health care providers of the 3 districts and of the HCC after need assessment in the following domains: |

| National DOTS program (promotion, prevention, treatment, monitoring, program Management) |

| Required laboratory skills |

| Behavioural Change Communication |

### Monitoring and Surveillance

| PHO |


| DHO, PHO |

| Conduct Quality Control of BK laboratory examinations at District Hospitals |

| DHO, PHO, Specialised organisat. |

| Conduct a KAP survey at the beginning of the operation including issues on ARI and Tuberculosis |

| VHV, HC, DHO, PHO |

| Assure monitoring and surveillance of respiratory health covering ARIs and TBC through HMIS and through vertical reporting system for TBC indicators |

### Specific Inputs

- Anti-Tuberculosis Drugs
- Microscope and laboratory consumables for KB examination in District Laboratories
- Operational Cost for training and outreach activities related to the TBC Control Program.
- Vaccines and consumables for EPI

All inputs required for the TBC Control Program are funded by the Global Fund and the Damiaan Foundation. Vaccines and consumables for the EPI program are financed by UNICEF. Both groups of inputs are conditional to renewal of the country programs of those organisations.

### Indicators

#### Disease Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of new LRTI cases</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of deaths due to ARI</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of deaths due to TBC</td>
<td>TBC report, VSSS</td>
</tr>
<tr>
<td>Number of measles cases</td>
<td>HMIS, WESR, VSSS</td>
</tr>
<tr>
<td>Number of diphtheria cases</td>
<td>WESR, VSSS</td>
</tr>
<tr>
<td>Number of whooping cough cases</td>
<td>WESR, VSSS</td>
</tr>
</tbody>
</table>

#### Activity Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of persons trained in relation to planned</td>
<td>Activity reports</td>
</tr>
<tr>
<td>Number of BCC activities by target group</td>
<td>Activity reports</td>
</tr>
<tr>
<td>Number of pharmacists trained in correct ARI treatment</td>
<td>Activity reports</td>
</tr>
<tr>
<td>Number of active contact tracings done</td>
<td>TBC program report</td>
</tr>
</tbody>
</table>
Vector- and pest-borne diseases (Regional Program)

Geographical location:
In the districts of Nakai, Gnommalat and Mahaxay all activities will be supported.
In Khamkheut District the camp-follower camps, the villages near to the workcamps and the transportation corridor will be covered by the promotional and preventive activities, the HCs responsible of those villages will benefit from the treatment, training and monitoring activities.
Monitoring and surveillance, and outbreak preparedness will cover all 8 Districts.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct education programs regarding the prevention and treatment of Dengue (including the provision of health education materials on Dengue)</td>
<td>VHV, HC, DHO, PHO</td>
</tr>
<tr>
<td>Spraying campaign against adult Aedes mosquitoes in case of Dengue outbreaks</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Application of larvicide for dengue larval control in case Dengue outbreak</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Conduct campaigns supporting the elimination of Dengue larvae breeding grounds</td>
<td>VHV, HC, DHO</td>
</tr>
<tr>
<td>Conduct education campaigns annually regarding the prevention and treatment of Malaria, more specifically on the use of Long-Lasting Impregnated Bed Nets (LLIBN)</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Assure 100% coverage by LLIBN in all villages of the PIA/TG and camp-follower camps in the district of Nakai, Gnommalat, Mahaxay and Khamkheut through provision and replacement of LLIBN</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Conduct IEC campaigns regarding the prevention of leptospirosis (only in case the leptospirosis proves to be an important cause of diseases (studies on fever of unknown origin))</td>
<td>HC, DHO, PHO</td>
</tr>
<tr>
<td>Develop and Implement non-hazardous waste management plans for Gnommalat and Nakai Township such that:</td>
<td>See EAMP, SDP</td>
</tr>
<tr>
<td>- Number of garbage cans and dumpsters provided are sufficient to hold accumulated garbage</td>
<td></td>
</tr>
<tr>
<td>- Garbage is stored in rodent proof containers, and with tight fitting lids</td>
<td></td>
</tr>
<tr>
<td>- Sanitary and solid waste is collected daily and covered daily with a solid layer of soil (15 - 30 cm) or incinerated to prevent insect and rodent access</td>
<td></td>
</tr>
<tr>
<td>- Create landfills adequate to deal with the garbage of the different target populations</td>
<td></td>
</tr>
</tbody>
</table>

Diagnosis and Detection

Assure Malaria Testing at HC and DH level (antigen test and/or microscopy) | HC, DH

Treatment

Assure adequate malaria treatment at HC and DH level (considering parasite resistance) | HC, DH

Assure adequate treatment for Dengue Fever, Dengue Hemorrhagic Fever, Dengue Shock Syndrome and other disease with fever as presenting argument at HC and DH level (including transfer to PH if required) | HC, DH, PH

Develop rapid response preparedness for of Dengue or Malaria outbreak (see infectious disease outbreak rapid response preparedness) | DHO, PHO, CMPE

Capacity Building
Provide training for health care providers regarding prevention strategies, and appropriate diagnostic and treatment protocols for malaria, dengue (DF, DHF, DSS) and other diseases with fever as presenting argument (Resource: Diagnosis and Treatment in district hospitals, Ministry of Health in Lao P.D.R., 2nd edition, 2004) also for PH.

<table>
<thead>
<tr>
<th>Capacity building of the health care providers of the 3 districts after need assessment in the following domains:</th>
<th>PH, PHO, CMPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>- National Malaria and Dengue Control Programs (promotion, prevention, treatment, monitoring, program Management)</td>
<td>PH, PHO, CMPE</td>
</tr>
<tr>
<td>- Required laboratory skills</td>
<td>PH, PHO, CMPE</td>
</tr>
<tr>
<td>- Behavioural Change Communication</td>
<td>PH, PHO, CMPE</td>
</tr>
</tbody>
</table>

Conduct training in dengue vector control, incl. use of insecticide and spray equipments for DHO and HC staff in case of outbreak

### Monitoring and Surveillance

- Develop and Implement a Dengue surveillance program (see Health monitoring and surveillance plan)
- Develop and Implement an Malaria surveillance program (see Health monitoring and surveillance plan)
- Conduct fever of undetermined origin research programme
- Conduct Quality Controls for malaria laboratory examinations
- Supervise compliancy with established medical diagnostic and treatment protocols for Malaria, Dengue and other diseases with fever as presenting argument

### Specific Inputs

- Dipsticks for Malaria detection
- Dipstick for 7 fever presenting diseases
- Operational costs for malaria blood slide examination quality control
- Long Lasting Impregnated Bed Nets
- Operational cost for distribution of LLIBN
- Spraying machines for Aedes mosquito control (2 per district)
- Insecticides for Aedes spraying campaign
- Larvicides for Aedes larvae control

Some inputs for Malaria Control activities are provided by the Global Fund. During implementation detailed planning should avoid possible overlapping or gaps and coordinate activities. These inputs are conditional to renewal of the Global Fund country program.

### Indicators

**Malaria disease indicators**
- Number of Malaria cases
- Number of Deaths due to Malaria
- Nr of BS or dipstick done
- Number of Malaria Negative Fever cases
- Number of pregnant women with Malaria
- Number of Malaria outbreaks

**Dengue disease indicators**
- Number of suspected Dengue cases
- Number of Hemorrhagic Dengue Fever (DHF) cases
- Number of Deaths due to Dengue
- Number of Dengue outbreaks

**Other disease indicators**

**Sources**

- HMIS, VSSS
- WESR, VSSS
- WESR
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Number of cases of leptospirosis, of typhus  
Prevalence of schistosomiasis, of opisthorchiasis  
**Activity indicators**  
- Proportion of staff trained per subject in relation to training plan  
- Village cover with BCC sessions on Malaria and Dengue prevention  
- Village cover with BCC sessions on Typhus and Leptospirosis prevention  
- Household coverage of LLIN  
- Coverage of Dengue outbreak villages by spraying  
- Village cover for treatment of Aedes breeding sites  
- Proportion of inpatient fever cases correctly treated (by diagnosis)  
- Number of blood transfusions for Dengue or Malaria  

Sexually Transmitted and Blood-borne Infections (Regional Program)

Geographical location:  
In the districts of Nakai, Gnommalat and Mahaxay all activities will be supported.  
In Khamkheut District the camp-follower camps, the villages near to the workcamps and the transportation corridor will be covered by the promotional and preventive activities, the HCs responsible of those villages will benefit from the treatment, training and monitoring activities.  
Monitoring and surveillance will take place in all 8 Districts.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide and implement BCC programs regarding STI/HIV-AIDS and prevention strategies (including provision of IEC materials)</td>
<td>HC, DHO, DCCA, PHO, PCCA, PSI</td>
</tr>
<tr>
<td>Implement comprehensive school-based HIV/AIDS and sex education programme</td>
<td>DHO, DCCA, PHO, PCCA</td>
</tr>
<tr>
<td>Conduct annual provincial advocacy workshop on HIV/AIDS &amp; STI prevention for project area authorities and health professionals, on policy, evolution and situation</td>
<td>DHO, DCCA, PHO, PCCA</td>
</tr>
<tr>
<td>Implement the national guidelines/policy for the control of blood-borne pathogens (proper disposal of sharps, autoclave equipment, in house medical waste collection, destruction and storage)</td>
<td>HC, DH, DHO, PH, PHO, Dpt. Hyg.</td>
</tr>
<tr>
<td>Implement Hepatitis B Vaccination of Children through the national EPI program (DTP + Hep B)</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Provide condoms and educate regarding use and disposal, targeting high risk groups. (Free of charge and/or through social marketing)</td>
<td>HC, DHO, PHO, PSI</td>
</tr>
<tr>
<td>Set up and operate an HIV counselling office in Gnommalat District offering services to Nakai and Mahaxay Districts.</td>
<td>DHO, PHO, MOH</td>
</tr>
<tr>
<td>Conduct health checks on SW</td>
<td>DHO, PHO</td>
</tr>
</tbody>
</table>

**Diagnosis and Detection**

Develop and implement laboratory diagnostic capabilities for HIV testing in a collaborative approach with the 3 Districts.  

**Treatment**

Provide correct treatment for STIs through the HCs and the DHs  
Improve and regulate treatment of STI by private pharmacies (also type 3)  
Provide post-exposure accident HIV treatment through VCT and ARV  
Assure blood-transfusion services in Gnommalat Inter-DH ensuring that blood complies with national quality standards (screened for blood-borne infections and coming form low risk groups)  

**Capacity building**
Educate concerned workers regarding hazards of medical waste handling and the uses of appropriate personal protective equipment.

Provide training for public health care providers regarding prevention strategies, and appropriate diagnostic and treatment protocols for STI and HIV/AIDS (Resource: Diagnosis and Treatment in district hospitals, Ministry of Health in Lao PDR, 2nd edition, 2004)

Provide training for private health care providers and pharmacies regarding prevention strategies, and appropriate diagnostic and treatment protocols for sexually transmitted infections (Resource: Diagnosis and Treatment in district hospitals, Ministry of Health in Lao PDR, 2nd edition, 2004)

Capacity building of the health care providers of the 3 districts and of the HCC after need assessment in the following domains:
- National HIV/AIDS and STI program (promotion, prevention, treatment, monitoring, program Management)
- required laboratory skills
- HIV counselling
- Behavioural Change Communication

Monitoring

Supervise compliance with bloodborne pathogens/infection control program

Supervise compliancy with established medical diagnostic and treatment protocols for curable STIs

Develop and Implement an STI, HIV/AIDS surveillance program based on the HMIS and Surveys (see Health monitoring and surveillance plan)

Include private pharmacies in data collection on STIs

Monitor bloodborne pathogene exposure accidents

Specific Inputs
- DPT-Hepatitis B vaccines
- Condoms
- Financing for school based education programs
- Financing post-exposure accident treatment
- Financing annual provincial advocacy workshop
- Financing of Surveys
- Finance PSI social marketing
- HIV testing equipment if testing unit set up in one of the districts
- Blood transfusion department equipment

Some inputs required for the HIV/AIDS and STI Control Program are funded by the Global Fund and an ADB project. During implementation detailed planning should avoid possible overlapping and coordinate activities.

Vaccines and consumables for the EPI program are financed by UNICEF.

Both groups of inputs are conditional to renewal of the country programs of those organisations.

Indicators

<table>
<thead>
<tr>
<th>Disease indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nr of different STI syndromes diagnosed</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>STI prevalence amongst target groups (SW, drivers, workers, schoolchildren)</td>
<td>Survey, VSSS</td>
</tr>
<tr>
<td>HIV prevalence amongst target group (SW, drivers, workers, schoolchildren)</td>
<td>Survey, VSSS</td>
</tr>
<tr>
<td>Nr of Professional blood-borne infection exposure accidents</td>
<td>Lab report</td>
</tr>
<tr>
<td>Number of Deaths presumed related to AIDS</td>
<td>Register, VSSS</td>
</tr>
</tbody>
</table>
Proportion of Hepatitis B, Syphilis, HIV positives amongst the blood donors

Activity indicators
Proportion of persons trained in relation to planned trainings
STI correctly treated by syndrome
STI treatments in public facilities
STI treatments in private pharmacies
Number of BCC activities by target group (SW, drivers, workers, schoolchildren)
Condom use by target group (SW, drivers, workers, schoolchildren)
Number of HIV/STI counselling sessions performed
Proportion of health institutions with correct waste management
Proportion of pharmacists trained in STI treatment and reporting
Number of HIV+ patients referred to SVK

Food, Soil and Water borne diseases (Regional Program)

Geographical location:
In the districts of Nakai, Gnommalat and Mahaxay all activities will be supported.
In Khamkhieut District the camp-follower camps, the villages near to the workcamps and the transportation corridor will be covered by the promotional and preventive activities, the HCs responsible of those villages will benefit from the treatment, training and monitoring activities. Monitoring and surveillance will take place in all 8 Districts.

The newly provided domestic water-sources which are replacing the affected water sources in the Xebangfai riparian area will undergo regular water quality control; these villages will also receive health promotion activities.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC on drinking water systems, treatment of water and family latrines based on the MOH water and environmental sanitation program (including the provision of health education materials)</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>BCC programs regarding fecal/oral transmission of diseases, and transmission of helminthic diseases (opisthorchis, trichinosis, cysticercosis, ascaris, pinworm, etc.) (including the provision of health education materials)</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>BCC on food sanitation awareness programs to local restaurants, open stall markets near construction camps followers areas</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Conduct regular inspections enforcing compliance with national hygiene regulations for restaurants/food vendors/abattoirs in the district centres of Nakai, Gnommalat and Mahaxay Project facilities and those providing to camp-followers and workforce.</td>
<td>DHO, PHO</td>
</tr>
<tr>
<td>Provide domestic water sources complying with national standards to villages/households whose water supply has been affected by the project, to be implemented by in coordination with Infrastructural development program</td>
<td>SDP, Infrastructural development program</td>
</tr>
<tr>
<td>Provide adequate sources of domestic water to camp-followers</td>
<td>(cf. Chap 20 / Reset Infrastr.Devt. Plan)</td>
</tr>
<tr>
<td>Provide adequate pour-flush latrines within to camp-followers</td>
<td>(cf. Chap 20 / Reset Infrastr.Devt. Plan)</td>
</tr>
<tr>
<td>Provide local markets with the following: 1) latrines, 2) waste receptacles and waste removal system 3) domestic water</td>
<td>(cf. Chap 20 / Reset Infrastr.Devt. Plan)</td>
</tr>
<tr>
<td>Introduce and Implement the school deworming program to PIA/TG group villages in Nakai, Gnommalat and Mahaxay</td>
<td>DHO, PHO</td>
</tr>
</tbody>
</table>
### Diagnosis and Detection

| Assure laboratorv diagnostic capabilities required for diagnosing food, water, and soil borne infections at DH level | HC, DH, DHO, PHO |

### Treatment

| Assure correct treatment of food, water and soil borne diseases at HCs and DHs | HC, DH |

| Develop a food or water borne illness outbreak response plan and investigation procedures, (see Infectious Disease Outbreak Rapid Response Preparedness) | DHO, PHO, Dpt. Hyg. |

### Capacity Building

<table>
<thead>
<tr>
<th>Capacity building of the health care providers after need assessment in the following domains:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- National Water supply, Sanitation, food hygiene and Control of Diarrhoeal Diseases Programs (promotion, prevention, treatment, monitoring, program Management)</td>
</tr>
<tr>
<td>- Required laboratory skills</td>
</tr>
<tr>
<td>- Behavioural Change Communication</td>
</tr>
</tbody>
</table>


### Monitoring and Surveillance


| Monitor prevalence of water, food and soil borne infections through routine HMIS data and Surveys (see section on "Monitoring and Surveillance") | HC, DH, DHO, PH, PHO, MOH |

| Test water quality of villages receiving new domestic water sources by project, at hand-over of the well and later yearly | EAMP, PHO, MOH |

| Monitor water quality of surface and ground water in the NT2 area (see Water Quality Monitoring Plan in EAMP Chapters 3&6) | EAMP |

### Specific Inputs

- Construction of latrines
- Construction of domestic water-sources of affected Xebangfai villages
- Construction of domestic water sources and latrines for camp-followers
- Financing of BCC for food handlers
- Financing inspection and enforcement inspection visit for food handlers
- Financing school deworming program
- Training of PHO Nam Sahaat for water quality inspection
- Provide required water testing equipment and consumables to Nam Sahaat PHO

### Indicators and Sources

<table>
<thead>
<tr>
<th>Disease indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cases of acute diarrhoea</td>
<td>HMIS, WESR, VSSS</td>
</tr>
<tr>
<td>Number of cases of dysentery</td>
<td>HMIS, WESR, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to acute diarrhoea</td>
<td>HMIS, WESR, VSSS</td>
</tr>
<tr>
<td>Number of outbreaks of food or waterborne borne diseases</td>
<td>HMIS, WESR</td>
</tr>
<tr>
<td>Number of cases of opisthorchis</td>
<td>VSSS</td>
</tr>
<tr>
<td>Number of cases of intestinal worm diseases</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of Hepatitis (A) cases</td>
<td>WESR, VSSS</td>
</tr>
</tbody>
</table>
Activity indicators

- Proportion of persons trained in relation to planned trainings: Activity reports
- Village cover with BCC sessions on Water and Sanitation: Activity reports
- Village cover with BCC sessions on prevention and management of Diarrhoeal Diseases: Activity reports
- Village cover with BCC sessions for food handlers: Activity reports
- Village cover with hygiene standard inspections of food handlers: Supervision reports
- Proportion of schools covered by deworming campaign: Activity reports
- Proportion of children covered by school deworming campaigns: Activity reports
- Coverage of households with access to domestic water: Activity reports
- Proportion of watersources by types of contamination: Lab reports
- Coverage of Households with toilets: Activity reports
- Proportion of campfollowers having access to domestic water: Activity reports
- Proportion of campfollowers having toilets: Activity reports
- Proportion of villages implementing waste management policy: Supervision reports
- Proportion of health institutions implementing waste management: Supervision reports
- Proportion of restaurants and food handlers/vendors complying with hygiene regulations: Supervision reports

Nutrition and micronutrients related issues (Regional Program)

Geographical location:
In the districts of Nakai, Gnommalat and Mahaxay all listed activities will be supported. In Khamkheut, Xebangfai, Nongbok and Xaybuli Districts only Monitoring and Surveillance activities will be supported. However if the monitoring shows an increase in malnutrition or micronutrient deficiencies due to the project the NTPC will support the treatment of these cases.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct BCC regarding adequate nutrition choices to avoid malnutrition and micronutrient deficiencies (including the provision of IEC materials)</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Conduct BCC on correct child weaning and child feeding practices adapted to changed types of food (including the provision of IEC materials)</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Implement Vitamin distribution programs (vitamin A, Folic Acid, FeSu) for children and pregnant women</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Collaborate with local villagers to develop alternate sources of sustainable protein to replace potential losses of fish as a staple in the local diet</td>
<td>HC, DHO, Dep of Agriculture</td>
</tr>
</tbody>
</table>

Therapeutic Activities

- Assure correct treatment of malnutrition and micronutrient deficiencies at HCs and DH: HC, DH
- Provide supplementary feeding for malnourished children: HC, DH, DHO

Capacity Building

- Capacity building of the health care providers of the 8 districts after need assessment in the following domains:
  - National nutrition and micronutrient programs (promotion, prevention, treatment, monitoring, program Management)
  - Behavioural Change Communication

Monitoring and Surveillance Activities
Supervise compliance with established medical diagnostic and treatment protocols for malnutrition and micronutrient deficiencies (Resource: Diagnosis and Treatment in district hospitals, Ministry of Health in Lao P.D.R., 2004)  

Detection and monitoring of nutritional status of "Children under Five" through integrated Primary Health Care Services (Growth monitoring)  

Conduct nutritional status surveys of specific PIA/TG (see section on "Monitoring and Surveillance")

<table>
<thead>
<tr>
<th>Specific Inputs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Fund for nutritional supplements for malnourished cases</td>
</tr>
<tr>
<td>- Vitamin A</td>
</tr>
<tr>
<td>- Ferro Sulphate and Folic Acid</td>
</tr>
<tr>
<td>- Nutritional Surveys</td>
</tr>
<tr>
<td>- Vit A for children (6-59 months) and for postpartum women is financed by UNICEF.</td>
</tr>
<tr>
<td>- This support is conditional to renewal of the country programs of those organisations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease Indicators</td>
<td>VSSS</td>
</tr>
<tr>
<td>Number of Deaths presumed related to malnutrition</td>
<td>Death Register, VSSS</td>
</tr>
<tr>
<td>Proportion of cases of current nightblindness</td>
<td>VSSS</td>
</tr>
<tr>
<td>Proportion of children having received Vit A supplement</td>
<td>Activity reports</td>
</tr>
<tr>
<td>Proportion of pregnant mothers receiving FeSu and FoAc Supplement</td>
<td>Activity reports</td>
</tr>
<tr>
<td>Proportion of health institutions including growth monitoring in their PHC outreach activities</td>
<td>Activity reports</td>
</tr>
<tr>
<td>Proportion of malnourished children receiving supplementary feeding</td>
<td>Activity reports</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Indicators</th>
<th>Activity reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village cover by BCC sessions on nutrition and weaning</td>
<td></td>
</tr>
<tr>
<td>Proportion of children having received Vit A supplement</td>
<td></td>
</tr>
<tr>
<td>Proportion of postpartum mothers having received Vit A supplement</td>
<td></td>
</tr>
<tr>
<td>Proportion of pregnant mothers receiving FeSu and FoAc Supplement</td>
<td></td>
</tr>
<tr>
<td>Proportion of health institutions including growth monitoring in their PHC outreach activities</td>
<td></td>
</tr>
<tr>
<td>Proportion of malnourished children receiving supplementary feeding</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accidents/injuries, chemical exposures and poisoning (Regional Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical location:</td>
</tr>
<tr>
<td>In the districts of Nakai, Gnommalat and Mahaxay all activities will be supported.</td>
</tr>
<tr>
<td>In Khamkheut District the camp-follower camps, the villages near to the workcamps and the transportation corridor will be covered by the promotional and preventive activities, the HCs responsible of those villages will benefit from the treatment, training and monitoring activities.</td>
</tr>
<tr>
<td>Monitoring and surveillance will take place in 5 Districts along the transportation corridor.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide education programs regarding road safety</td>
<td>MTCP at District level, HIB, DHO, PHO</td>
</tr>
<tr>
<td>Provide education programs for electrical safety in the home in collaboration with the MTCP</td>
<td>MTCP at District level, HIB, DHO, PHO</td>
</tr>
<tr>
<td>Provide education programs on correct management of pesticides and fertilizers (see Chapter 3 and Annex M in EAMP)</td>
<td>MoA at District level, DHO, PHO</td>
</tr>
</tbody>
</table>
### Treatment

<table>
<thead>
<tr>
<th>Provide first aid treatment for mechanical and chemical traumas and poisoning at the HCs and DH</th>
<th>HC, DH,</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Gnommalat DH provide 24 hours a day:</td>
<td>DH, DHO, PHO</td>
</tr>
<tr>
<td>− Emergency and Intensive Care Unit (2-4 beds)</td>
<td></td>
</tr>
<tr>
<td>− Blood transfusion services (blood-bank, laboratory)</td>
<td></td>
</tr>
<tr>
<td>− X-ray and ultrasound services</td>
<td></td>
</tr>
<tr>
<td>− Operation theatre assuring intermediate surgical interventions</td>
<td></td>
</tr>
<tr>
<td>Develop and maintain a referral system for cases requiring transfer</td>
<td>HC, DH, PH, DHO, PHO</td>
</tr>
</tbody>
</table>

### Capacity building


### Monitoring and Surveillance

| Monitor number of cases of mechanical and chemical accidents/injuries and exposures through HMIS | HC, DH, DHO, PH, PHO |

### Specific inputs
- Financing of different BCC session
- New Infrastructure in Gnommalat DH
- X-ray machine and table (extremities, spine, and thorax)
- X-ray development equipment
- X-ray consumables
- Ultrasound machine
- Surgical equipment (operation table, suction machine, anaesthesia, instruments, sheets,....)
- Operation theatre and anaesthetic consumables
- Blood bank equipment & furniture (laboratory, fridges)
- Blood bank consumables
- Ambulance 24hrs/24hrs
- Operational budget for ambulance
- Intensive care equipment & furniture
- Intensive care consumables

### Indicators

<table>
<thead>
<tr>
<th>Disease indicators</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of traumas</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of RTA cases</td>
<td>HMIS, VSSS</td>
</tr>
<tr>
<td>Number of poisoning cases</td>
<td>WESR, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to RTA</td>
<td>Death Register, VSSS</td>
</tr>
<tr>
<td>Number of Deaths due to other injuries</td>
<td>Death Register, VSSS</td>
</tr>
<tr>
<td>Number of deaths due to poisoning</td>
<td>Death Register, VSSS</td>
</tr>
<tr>
<td>Number of deaths due to drowning</td>
<td>Death Register, VSSS</td>
</tr>
</tbody>
</table>
Activity indicators
Proportion of persons trained in relation to planned trainings Activity Report
Number small surgery/dressing for injuries HMIS, VSSS
Number of intermediate surgery for injuries HMIS, VSSS
Proportion of cases transferred HMIS
Number of bloodtransfusions for accident related haemorrhage Lab report
Village coverage with BCC sessions on Road and Electrical Safety Activity Report
Village coverage with BCC sessions on safe use of pesticides and fertilizers Activity Report

Psychosocial disorders (Regional Program)
In the districts of Nakai, Gnommalat and Mahaxay all activities will be supported.
Monitoring and surveillance will take place in 8 Districts along the transportation corridor.

<table>
<thead>
<tr>
<th>Promotion and Prevention</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC in schools on substance abuses</td>
<td>Prov. Drug control unit of Min. of Education</td>
</tr>
<tr>
<td>BCC on mental health for villages</td>
<td>DHO</td>
</tr>
<tr>
<td>Prevent uncertainties and stress through adequate information on the future through regular communication and consultation</td>
<td>Project Public Consultation Unit</td>
</tr>
<tr>
<td>Support the development and functioning of the District Committee for Drug Control</td>
<td>NTPC</td>
</tr>
</tbody>
</table>

Treatment
Assure recognition of mental health problems at village level by HC. HC
Assure recognition of mental health problems and limited treatment capacities at DH level and referral if required. DH
Introduce a package of Psychotropic drugs at DH level. Dpt. Of Psychiatry
Assure diagnostic and treatment capacity of PH Thakhek PH

Capacity building
Provide training for health care providers (VHV, HC, DH, PH) regarding preventive strategies, and appropriate diagnostic and treatment protocols for mental health problems. Dpt. Of Psychiatry (Mahosot)
Provide training for resource person of the provincial drug control unit of the MOE (drug abuse education in schools) National Committee for Drug Control

Monitoring and Surveillance
Monitor the mental health situation through surveys MOH, PHO, Dpt. Of Psychiatry (Mahosot)

Specific Inputs
- Development of a mental health training curriculum for HC and DH staff
- Psychotropic Drugs
- Support BCC in Schools
- Training of provincial MOE resource person for the drug control unit
- Support District Committee for Drug Control

Indicators
Source
Disease indicators
Number of cases of mental health problems VSSS
Number of substance abuse cases VSSS
Number of injuries due to violence VSSS

Activity indicators
Proportion of persons trained in relation to planned trainings
Village cover with BCC sessions on mental health
School cover with BCC on substance abuse for schoolchildren
Number of mental health cases correctly treated or referred
Turnover of psychotropic drugs at DH level
Nr activities deployed by the District Committee for Drug Control

Activity reports
Activity reports
Activity reports
Supervision reports
DRF tallies
Activity reports

Cultural Health Practices (Regional Program)
Geographical location:

In Nakai District the utilization of traditional medicine will be monitored at village level.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote cultural sensitivity among hospital staff for traditional rituals (e.g. yu fai, sou khwan)</td>
<td>DH, DHO, PMU</td>
</tr>
<tr>
<td>Ensure BCC messages are congruent with ethno-medical frames of representing disease, cure and prevention.</td>
<td>PMU</td>
</tr>
<tr>
<td>Monitor the Traditional Health Practices and the availability of ingredients of traditional medicines through KAP surveys</td>
<td>MOH, PHO, S&amp;M taskforce</td>
</tr>
</tbody>
</table>

Specific Inputs
None

Indicators

**Activity Indicators**
Correct audience replies to post-session or survey questions: Activity report, surveys
Utilization of Traditional Medicine in villages: VSSS

Support and Development of Public Health Institutions (Regional Program)
Geographical location:
For most support activities the locations will be mentioned. If not mentioned the support will address the institutions of Nakai, Gnommalat, Mahaxay covering the PIA/TG 1-4 and the HC of Khamkheut covering for the campfollower camps and the surrounding villages.

This sector includes the support required for the development and functioning of a provincial programme coordination unit, responsible for planning, support, supervision and reporting.

<table>
<thead>
<tr>
<th>Provide required and adapted technical, administrative management and monitoring systems for DH and DHOs</th>
<th>Implementing Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support improvement of management systems and required forms (see ICHC manual)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Develop the procedures for the referral system</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Provide Training in application of new systems</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Develop a yearly activity plan by institution</td>
<td>HC, DHO</td>
</tr>
<tr>
<td>Assure technical support and supervision</td>
<td>PHO + PMU</td>
</tr>
</tbody>
</table>

Develop and introduce a financing system

| Developing partial financial independence through income revenue systems (DRF, feepaying, community health insurance,) and GOL. | DHO, PHO, PMU |
| Introduce and support a Equity Fund system for poor affected households                               | DHO, PHO, NGO      |
| Initial cost recovery will be based on a DRF                                                        | DHO, PHO, PMU      |
| Decide on development of community health insurance during mid term review                          | DHO, PHO, PMU      |
### Chapter 5: Health Impact Assessment and Public Health Action Plan

<table>
<thead>
<tr>
<th>Task</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapt accounting systems and required forms (see ICHC manual)</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Provide Training in application of new system</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Develop a yearly budget by institution</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Ensure that the HC and the DH have the required number of capable staff</td>
<td>DHO, PHO, PMU</td>
</tr>
<tr>
<td>Ensure 24 hours a day, 7 days a week services at the HC and DH (overtime allowance)</td>
<td>HC, DH</td>
</tr>
<tr>
<td>Provide package of training to HC staff on management of HC and different PHC programs and technical trainings (diagnosis and treatment, DRF management, planning, HC hygiene, HC nursing practices, maternal care, EPI, etc.)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Training of DHO and DH staff will depend on training need assessment (see capacity building plan)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Assure continuity of services</td>
<td></td>
</tr>
<tr>
<td>Assure adequate support and supervision</td>
<td></td>
</tr>
<tr>
<td>Support &amp; supervision visit of DHO and DH by PHO 3 days monthly for team of 4 persons</td>
<td>PHO</td>
</tr>
<tr>
<td>Support &amp; supervision visit of HC by DHO 3 days monthly for team of 3 persons per HC</td>
<td>DHO</td>
</tr>
<tr>
<td>Infrastructure (building including sanitation, water, electricity)</td>
<td></td>
</tr>
<tr>
<td>At Gnommalat DH construction of:</td>
<td>NTPC, PHO, DHO</td>
</tr>
<tr>
<td>- Rooms for X-ray departments</td>
<td></td>
</tr>
<tr>
<td>- Rooms for blood-transfusion department</td>
<td></td>
</tr>
<tr>
<td>- Rooms for 2 bed Intensive Care Unit</td>
<td></td>
</tr>
<tr>
<td>- Rooms for Surgical Department (intermediate surgery)</td>
<td></td>
</tr>
<tr>
<td>- Ward for surgical cases 2 X 5 beds</td>
<td></td>
</tr>
<tr>
<td>At Mahaxay DH rehabilitation of existing hospital</td>
<td>NTPC, PHO, DHO</td>
</tr>
<tr>
<td>Rehabilitation and/or construction of the following HCs</td>
<td>NTPC, PHO, DHO</td>
</tr>
<tr>
<td>- Nadou HC (Mahaxay)</td>
<td></td>
</tr>
<tr>
<td>- Phone Khene HC (Gnommalat)</td>
<td></td>
</tr>
<tr>
<td>- …………………HC (Gnommalat)</td>
<td></td>
</tr>
<tr>
<td>- …………………HC (Khamkheut)</td>
<td></td>
</tr>
<tr>
<td>Provide required medical and non-medical equipment</td>
<td></td>
</tr>
<tr>
<td>Provide Medical equipment and furniture for HC (needs to be assessed)</td>
<td>PHO + PMU</td>
</tr>
<tr>
<td>Provide Medical equipment and furniture for DH (needs to be assessed)</td>
<td>PHO + PMU</td>
</tr>
</tbody>
</table>
Chapter 5: Health Impact Assessment and Public Health Action Plan

### For Gnommalat DH provide equipment and furniture required for:
- X-ray departments
- Blood-transfusion department
- 2 bed Intensive Care Unit
- Surgical Department (intermediate surgery)
- Ward for surgical cases 2 X 5 beds

Provide Non-medical Equipment and furniture for HC (needs to be assessed)

Provide Non-Medical equipment and furniture for DH and DHO (need to be assessed)

Provide office equipment and furniture for PHO NTPC health programme coordination unit.

### Provide vehicles
- Provide a motorbike to each of the covered HC and to the DHO (outreach, supervision), to be replaced after 5 years
- Provide an ambulance vehicle, for ambulance use only, to Gnommalat Inter-DH covering the 3 districts, to be replaced after 5 years
- Provide an utility vehicle to Mahaxay and to Gnommalat DHO (support, supervision, ambulance), to be replaced after 5 years
- Provide an utility vehicle to PHO TKK, for project support and supervision

### Assure financing and steady supply of consumables and operational costs (supplementary to regular GOL support)
- Provide an initial stock of Drugs and medical supplies (DRF) for HC and DH (purchase through PHO)
- Provide annually a fund for operational cost (stationary, office material, cleaning material, electricity, water, telephone, meeting costs)
- Provide annually a fund for functioning and maintenance of the vehicles (motorbike, 3 utility cars and 1 ambulance)
- Provide annually a fund for functioning and maintenance of equipment and infrastructure
- Provide funds for outreach activities (other than integrated) 3 days for 2 persons per month per HC

The HMIS and activity reports will provide all indicators required to evaluate these activities. The indicators will include utilization rates, coverage rates, input/activity indicators.

### 5.13 PROJECT STAFF HEALTH PROGRAM

While not part of this PHAP, it is worth noting the Objectives of the Project Staff Health Programme, which are:

- To ensure Preventive and curative measures safeguarding Health and Safety of his workers and their families; and
- To prevent and Mitigate health effects due to construction works and the influx of project staff on the local population (communicable diseases).

The draft plan of the Project Staff Health Program will be available by in November 2004. Annex L of the EAMP contains the Head Construction Contractor’s Environmental Requirements, which includes the TOR for the Project Staff Health Program.

The HCC will provide health services to their workforce of 4,000 to 5,000, the PIA/TG#6, 2,500 to 3,000 of their workforce might be Lao while others will originate from regional and overseas countries.
Whatever institutions they will use to provide these health services, Lao public health institutions or private dispensaries, HCC is obliged to make timely preparations.

The HCC is required to introduce his draft plan not later than 3 months before Commencement Date.

5.14 SURVEILLANCE AND MONITORING

5.14.1 Introduction

Surveillance and monitoring (S&M) is an integral and essential part of the Public Health Action Plan (PHAP). On the one hand, surveillance and monitoring consist of similar activities, including the systematic collection, analysis and interpretation of health data, and the dissemination of key findings to potential users and various stakeholders. On the other hand, there are important differences between the two activities. For example, surveillance is mainly used to describe continuously the health status of a population, thereby facilitating the detection of early severe health outcomes that can inform health policy and decision maker to implement appropriate interventions. In contrast, monitoring is used to follow-up a clinical and public health intervention with the aim to determine its efficacy and cost-effectiveness. In broad terms, monitoring consists of the systematic follow-up of input, process and output indicators of interventions, as well as the continuous recording of health outcomes. Another common ground of surveillance and monitoring is that outcome indicators of a monitoring system might also be subject to surveillance. It follows that the delimitation of the two activities is not always straightforward.

The importance of a well established and functioning S&M system can not be overestimated. It provides crucial information on the emerging adverse health problems and indicates when, how and where to intervene. In a broader sense it is a tool for health authorities to guide the investment of the resources available to the populations in need.

Moreover, in case of a non-expected magnitude of an emerging disease, S&M is an excellent tool that provides sound evidence to increase the budget needs, a crucial element to convince donor agencies for an increased support.

S&M also allows to measure the efforts undertaken by government to mitigate adverse health outcomes, a most important outcome of this PHAP activity.

Unambiguous definitions of the indicators to be followed and reported are of major importance for an efficient and cost-effective surveillance and monitoring system. The current section presents the necessary background, definitions and information available to date.

Surveillance and Monitoring is so much of a crosscutting issue over the Health Programs that it is presented as a separate section covering all PHAP activities. Monitoring activities are not planned per Health Program. They do however have to be budgeted by the Resettlement and the Regional Health Program. A separate budget is presented in this section, but is already integrated in the Resettlement and the Regional Health program budgets under the budget line Monitoring and Surveillance. For its part, the PSHP has also budgeted to provide workers with initial and yearly follow-up health checks.

5.14.2 Objectives

The overall objective of the surveillance and monitoring (S&M) activity is to provide health information on the populations affected by the Nam Theun 2 (NT2), related to dam construction, filling and subsequent operations, and to assess and quantify progress of the implementation of the public health actions (and interventions) executed. Therefore, regular and systematic collection, analysis, interpretation and dissemination of information on health, disease risk factors and public health actions are mandatory. The information collected must be available in a timely manner to health authorities and PMUto facilitate adequate responses to emerging diseases and health risks. This is certainly the case for data related to outbreaks.

5.14.3 Strategies

The following strategies will be implemented:
Chapter 5: Health Impact Assessment and Public Health Action Plan

1. Establish task force consisting of members of MOH, NTPC health office, health departments, IFMT/SWTI and other institutions responsible for the various activities of the S&M.

2. Establish new and support existing appropriate public health information collection systems and initiate and maintain a steady flow of information (from community to central level and backwards).

3. Initiate and implement appropriate response interventions.

5.14.4 List of Activities

- To establish the task force for S&M: define the members (MOH, NTPC health office, health departments and other institutions) and the role and responsibility of each member (MOH: overall responsibility; NTPC health office: executive secretary; departments and Institutions to be defined).

- To define the meeting schedule of the task force (proposed: bi-annual; extra-ordinary meetings can be called in on request by MOH and NTPC health office).

- To establish the Infectious Disease Detection System

- To define surveillance and monitor indicators.

- To establish routine collection of public health data by re-enforcing existing routine data collection systems.

- To propose, plan and implement specific S&M surveys which complement and enhance routine data collection systems.

- To analyze, interpret and report surveillance data on a regular basis.

- To define and plan specific public health interventions addressing newly identified public health problems

- To inform the Outbreak Response Team when an outbreak emerges

- To initiate and monitor efficacy and cost-effectiveness of new public health interventions.

5.14.5 Description of Activities

Description of major Activities of S&M are described below. More details of these activities including objectives, description, timing, implementing institutions and preliminary budget are provided in the specific activity sheets in 5.12.7

Task Force: Objectives, members and main responsibilities

The objective of the task force is to plan and coordinate the implementation of all S&M activities. The following 10 members of the task force are proposed:

- Chair: Ministry of Health, Hygiene&Prevention: chair (= overall responsibility of all activities)
- Executive secretary: NTPC public health office: executive secretary (practical implementation of all S&M activities in collaboration with members of the task force and further institutions; reporting of activities)
- Members: CMPE, CLE, NSC, IFMT/SWTI, WHO and provincial health departments of Khammouane, Borikhamxay and Savannakhet.

The responsibilities are defined as follows:

- Chair:
  - overall responsibility of S&M activities
  - to chair task force meeting
  - to facilitate S&M activities within the MOH
- Executive secretary:
  - to establish agenda of task force meeting
  - to propose plan of implementation of activities
  - to provide information and feed-back on implemented activities
to coordinate implementation activities between members of the task force
- to provide financial resources
- to facilitate S&M activities with NTPC

Members of task force:
- to propose plan of implementation of activities
- to execute grass-root S&M activities
- to report on activities (including financial statements)
- to facilitate S&M activities within the institution
- to provide scientific and epidemiological support
- to provide feedback information to health institutions

The task force meets bi-annually. Either the chair and/or its secretary are calling for a meeting. Extra-ordinary meetings can be called in by the chair or its secretary. Decisions are made based on majority of votes of partners present in the meeting. Chair and secretary have the right to veto task force decisions.

On the first task force meeting the exact roles and responsibilities of the task force meeting will be discussed and defined. More details of the planning of task force meeting is provided in 5.12.7.1.

The systematic collection of the routine S&M data will be crucial and very time-consuming task. It is of most importance that this work is conducted with a high quality. A full-time position (preferably: medical doctor with post-graduate training and data handling and collection experience, Lao national) will be imperatively required to collect stay in constant contact with the centre of routine data collection and compiling health information all data for the S&M activities. This person will be an assistant to PMU.

More details on this activity is provided in the activity sheet 2 in 5.12.7.2

Data Collection Sources

A comprehensive list of indicators to be followed has been established. The indicators are based on the recommendations of the Health Impact Assessment (HIA)\(^2\) and on the Public Health Action Plan (PHAP)\(^3\).

It is the responsibility of the S&M task force to put in place an adequate data sources collection system. Mainly five data collection sources will be used: the new Health Management Information System (HMIS), the Weekly Epidemiological and Surveillance Report (WESR), the data of vertical programs such as Malaria, TB, Mother Child Health and other. Additional demographic information will be available through the National Statistic Centre (NSC) which conducts national population surveys every 5 and 10 years. S&M surveys on specific important health outcomes and risk factors will be conducted to complement the routine data collection. A summary description of the data sources is provided below. More details are available in the Chapters 5.12.7.1-5.12.7.9 and in the quoted references.

**Health Management Information System (routine data)**

The Health Management Information System (HMIS) is the revised Health Information System (HIS) currently in place. The HIS operates since 1991\(^4\). It further evolved since then. However, a recent review concluded that the current HIS is cumbersome, complicated and provides little useful information to health program managers and planners\(^5\). The current HIS (1) collects a large volume of data which is of limited utility, relevance, accuracy and reliability, (2) case definitions are unclear, (3) no information dissemination feedback mechanism are considered, (4) insufficient analysis and reporting is done\(^6\).

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\(^2\) Nam Theun 2 Hydroelectric Project: Health Impact Assessment and Public Health Action Plan, March 22, 2004

\(^3\) Public Health Action Plan: List of Interventions established joined meetings MOH and NTPC head office. June 2004

\(^4\) HIS Guidelines approved by Ministry of Health, 6th May 1991


\(^6\) More information on current HIS is available in: Health Services Improvement Project, MOH/WB, Baseline Survey Report, conducted by Indochina Research Ltd, March 2004 (Main report, volume 1, chapter 4).
The new HMIS has been developed by MOH over the past several years with support from the World Health Organization (WHO). A full document is available at MOH. The new HMIS has been evaluated in two districts one of which is Hinheub, a district in the province of Vientiane, and the other Bolikhan in the province of Borikhamxay. After the relative success of that first pilot test, the Ministry wishes to monitor progress in a second pilot area before deciding to implement the system on a provincial or wider scale. Such an extension is foreseen in the planned HSIP, supported by the Asian Development Bank (ADB) and the World Bank (WB), respectively. Below, a short description of the HMIS is provided.

The HMIS will collect information at the village level, in the health centers, at the district (hospital and health office) and at provincial level (hospital and health office).

The new HMIS is divided in 5 parts:

1. Village demographic and environmental information: family information (birth, death, water and sanitation, bed net use); summary sheets of this data at village level
2. Registers to record information from health facilities (all levels): data from registers from outpatient, in-patient, maternal and MCH care. Furthermore, information on deliveries assisted by health staff, birth spacing and tetanus vaccination to pregnant women will be obtained.
3. Tally sheets to record health facilities data (monthly): tally sheets for out-patient and in-patient morbidity and MCH and preventive care activities.
4. Reporting forms on morbidity and routine activities of curative and preventive health personnel of district and province (all levels, daily and monthly): daily activity report of health centers, district and provincial hospitals and summary monthly report sheet.
5. Consolidation report on activities and morbidity: an annual report is generated for each facility and for one area.

The information is collected in the health department and sent from village to provincial level. The provincial health office provides all the information to the provincial department of statistics. The Health Statistics Unit of the MOH (HSU) collects summary information sheets. The data sheets are kept locally at village, health centers, district and provincial levels. They serve for health planning activities for local authorities. Only summary data sheets are provided to upper level authorities.

The HMIS was planned to be implemented in the Southern provinces in 2004 or 2005. The Minister has now requested further evidence of the system’s feasibility and effectiveness. Furthermore, the analysis, interpretation and dissemination of information are not specified in the HMIS document. Specific support would be needed to set up these tasks. Since the HMIS only tracks public health disease and activity data, a more appropriate community health surveillance option is discussed below (Village Sentinel Surveillance System).

Weekly Epidemiological Surveillance Report of CLE (WESR, Centre for Laboratory and Epidemiology)

The Weekly Epidemiological Surveillance Report (WESR) is a weekly reporting of cases and death of 18 target diseases (24 indicators). The information is telephoned or faxed by Monday and Wednesday from district to provincial and from provincial to central level, respectively. A bulletin in the form of summary tables is compiled, printed and distributed weekly. The data tables are stratified by diseases, provinces and new and cumulative cases and death. Below, a list of the target diseases is provided.

Cases and death due to the following diseases are reported:


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Chapter 5: Health Impact Assessment and Public Health Action Plan

The WESR is a routine activity performed by CLE. No particular funding agency supports this activity. Working procedures are established. However, quality control, continuous training and feedback mechanism from central to peripheral levels and vice-versa are minimal. Furthermore, the dissemination of the information is hampered as the bulletin is available only in table format and in printed version which makes the interpretation of the data difficult and distribution of the bulletin very tedious. It would be preferred to have the data digitalised. Follow-up graphics of the disease frequencies could be generated automatically every week and the distribution could be made electronically, via email to various institutions. A minimal support for the WESR system to CLE is required in order to optimise the functioning of the system. Details on this support are provided in Activity sheet number 4 in 5.17.2.4.

Sources of Vertical Programs (TB, Malaria, MCH, NCCA)
Various vertical national programs such as the malaria control program, tuberculosis, mother-child-health (MCH) program and the National Centre for the Control of AIDS (NCCA) are collecting their specific data on a routine bases. This information complements information of the HMIS, WESR and the NSC. Therefore it will be important that also these specific centres are included in the routine data reporting, at least on an annual base. Furthermore, these centres possess trained human resources of their domains. For all specific S&M surveys which will be conducted to complement the routine data collection, this expertise will be required to efficiently plan, conduct and analyse these surveys.

The number of sources of expertise might change depending on the detailed work to be conducted. No detailed activity sheets have been established as collaboration with these centres depends on the activities described in Activity sheets 1, 2 and 6 to 9.

Population Surveys of the National Statistic Centre (NSC)
At the national level health and demographic information are collected by the National Statistic Centre (NSC). The NSC has the mandate to perform a Reproductive Health Survey every 5 years (last survey conducted in 2000, next survey is due in 2005) and a national census every 10 years (next survey is due 2010). This is information which will be taken into account for the surveillance of the public health status of the NT2 affected populations.

No additional specific S&M activity sheets need to be defined for the collaboration with the NSC.

Surveillance and Monitoring Surveys
S&M surveys will be implemented to complement routine data collection of the HMIS and WESR. The specific objectives of these S&M surveys are presented below. They focus on monitoring risk factors related to the environment and human behaviour. Of particular interest is the monitoring of risk factors related to sexually-transmitted diseases (STDs), particularly HIV/AIDS, as well as malaria, dengue fever, nutritional status and disorders (food-borne parasitic infections, etc.) and changing human practices (e.g. agricultural land use), which in turn might impact human health.

The available baseline data collected in recent years for the Nakai Plateau population will be complemented for the other target populations.

Gender, ethnicity, poverty, equity and wellbeing levels are highly relevant indicator for the monitoring of a public health intervention. Quality and accessibility of the intervention must be available to all strata of the five variables in equal shares. Unfortunately none of the variable is included in the HMIS and WESR. Therefore S&M surveys need to complement this missing information.

The time schedule and periodicity of the S&M surveys depends on their specific objectives. In general, however, three periods can be distinguished:

1. immediate in-depth analysis of all health information available at this moment (preferable between July – October 2004). This is important for the preparation the S&M system and the specific health S&M surveys.
2. Base-line surveys in Nakai (November 2004 to April 2005): the Nakai population is the primary affected by the construction of the dam, which is starting in a few months time. Therefore the base-line survey are to be performed as soon as possible.
3. **Baseline survey in Xe Bangfai areas and follow-up survey in Nakai and Xebangfai areas (2006 and/or 2007):** The population of Xe Bangfai area will be affected only when the dam is operational, which will be from 2008 onwards. Therefore base-line surveys can be delayed for 1-2 years.

A short description of the main S&M surveys is provided in 5.12.7.7-5.12.7.9.

**Village sentinel surveillance system (VSSS)**

The following discussion considers the establishment of a data collection system that, unlike the preceding sources, would not inherently be biased by a focus on public health service points. As the JICA 2002 Study stated, at least half of household health related expenditure goes to the purchase of medicines from private pharmacies. Population level data are therefore more representative of the actual situation when collected directly from households.

The establishment and running of a longitudinal village sentinel surveillance system (VSSS) in the Project area would allow focused monitoring and surveillance of potential direct, indirect and cumulative impacts. This VSSS would comprise sentinel villages located in at least three areas where potential Project impacts are likely to occur: (i) Nakai plateau, (ii) Gnommalat area where major construction activities and worker camps were located, and (iii) lower Xe Bangfai. The proposed VSSS would provide critical information based on following tasks:

- to monitor longitudinally significant variables with special emphasis on the nine key environmental health areas, including labour trafficking
- to broadly monitor social and economic indicators of development and equity;
- to assess and quantify over time the health impacts of the NT2 project;
- to provide timely and accurate information to key stakeholders; and
- to provide a platform for research programs on health and social policy developments
- to demonstrate responsible public-private sector alliances.

After establishing a functioning and viable VSSS, it would be possible to consider the more rigorous and extensive demographic surveillance system (DSS) under the umbrella of the “International network for the continuous demographic evaluation of population and their health in developing countries” (INDEPTH). The INDEPTH network currently operates in more than 25 sites in different ecological, epidemiological and socio-cultural settings in Asia and Africa (http://www.indepth-network.net).

This DSS would comprise a cluster of sentinel villages, covering a total population of 40,000-50,000 people who live in close proximity to the NT2 project area, and are thus likely to be directly affected by the project. For control purposes, another cluster of sentinel villages, also covering 40,000-50,000 people, would be established in the lower Xe Bangfai area, separated from the construction area, and thus not early on or directly affected by the project. The DSS already established in low-income countries have produced a wealth of high-quality, population-based data that bridge the gap of monitoring health, social and economic variables, including equity considerations.

### 5.14.6 Baseline Disease Indicators

Health related data include disease and activity indicators, as outlined in the Resettlement and Regional Health Programs’ EHA’s (see 5.9.1 and 5.10.2). Activities are tracked using activity, supervision and laboratory reports that are gradually introduced as of project starting date. Following is a description of disease monitoring tasks that need implementation even before such date.

#### Table 5-38: Main PHAP Recommended Disease Indicators

<table>
<thead>
<tr>
<th>Health Area</th>
<th>Disease Indicators</th>
<th>Covered</th>
<th>Status (Oct’04)</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>respiratory</td>
<td>Number of new LRTI cases</td>
<td>HMIS surveyed</td>
<td>VSSS</td>
<td></td>
</tr>
<tr>
<td>respiratory</td>
<td>Number of measles cases</td>
<td>HMIS, WESR</td>
<td>surveyed</td>
<td>VSSS</td>
</tr>
<tr>
<td>vector</td>
<td>Number of malaria cases</td>
<td>HMIS</td>
<td>surveyed</td>
<td>VSSS</td>
</tr>
<tr>
<td>vector</td>
<td>Nr of BS or dipstick done</td>
<td>HMIS</td>
<td>surveyed</td>
<td>VSSS</td>
</tr>
<tr>
<td>vector</td>
<td>Number of malaria negative fever cases</td>
<td>HMIS</td>
<td>surveyed</td>
<td>VSSS</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Source</td>
<td>Method</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>Nr of various STI syndromes diagnosed</td>
<td>HMIS</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of cases of acute diarrhoea</td>
<td>HMIS, WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of cases of dysentery</td>
<td>HMIS, WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of intestinal worm diseases</td>
<td>HMIS</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>nutrients</td>
<td>Number of anemia cases</td>
<td>HMIS, WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of traumas</td>
<td>HMIS</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>psychosocial</td>
<td>Number of cases of mental health problems</td>
<td>HMIS</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>respiratory</td>
<td>Number of diphtheria cases</td>
<td>WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>respiratory</td>
<td>Number of whooping cough cases</td>
<td>WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of pregnant women with malaria</td>
<td>no</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of cases of schistosomiasis</td>
<td>no</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Coverage of LLIBN</td>
<td>no</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of malaria cases correctly treated</td>
<td>no</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of cases of opisthorchias</td>
<td>no</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of hepatitis (A) cases</td>
<td>WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>nutrients</td>
<td>Number of malnutrition cases by type</td>
<td>WESR</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>nutrients</td>
<td>Number of beriberi cases</td>
<td>no</td>
<td>surveyed</td>
<td></td>
</tr>
<tr>
<td>respiratory</td>
<td>Number of deaths due to ARI</td>
<td>HMIS</td>
<td>n.a. to be surveyed</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of deaths due to malaria</td>
<td>HMIS</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of deaths due to dengue</td>
<td>HMIS</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of deaths due to acute diarrhoea</td>
<td>HMIS</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Nr of cases of diarrhoea with severe dehydration</td>
<td>HMIS</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of suspected dengue cases</td>
<td>HMIS, WESR</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>STI treatment in public facilities</td>
<td>HMIS</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of RTA cases</td>
<td>HMIS</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Nr of dengue hemorrhagic fever (DHF) cases</td>
<td>WESR</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of typhus cases</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of meningitis cases</td>
<td>WESR</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>nutrients</td>
<td>Number of night blindness cases</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of leptospirosis cases</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of poisoning cases</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of malaria outbreaks</td>
<td>no</td>
<td>WESR</td>
<td></td>
</tr>
<tr>
<td>vector</td>
<td>Number of dengue outbreaks</td>
<td>no</td>
<td>WESR</td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>Number of outbreaks of food/waterborne diseases</td>
<td>no</td>
<td>WESR</td>
<td></td>
</tr>
<tr>
<td>respiratory</td>
<td>Number of deaths due to TBC</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>nutrients</td>
<td>Nr of deaths presumed related to malnutrition</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>Number of deaths presumed related to AIDS</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of deaths due to RTA</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of deaths due to other injuries</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of deaths due to poisoning</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>Number of deaths due to drowning</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>STI treatments in private pharmacies</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>Condom use by target group (SW, drivers, workers, schoolchildren)</td>
<td>no</td>
<td>NCCA</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>STI prevalence amongst target groups</td>
<td>no</td>
<td>NCCA</td>
<td></td>
</tr>
<tr>
<td>STI</td>
<td>Nr of new HIV infections amongst target group</td>
<td>no</td>
<td>NCCA</td>
<td></td>
</tr>
<tr>
<td>psychosocial</td>
<td>Number of mental health cases in the villages</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>psychosocial</td>
<td>Number of substance abuse cases</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>psychosocial</td>
<td>Number of injuries due to violence</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
<tr>
<td>culture</td>
<td>Utilization of Traditional Medicine in villages</td>
<td>no</td>
<td>n.a. t.b.s.</td>
<td></td>
</tr>
</tbody>
</table>
Table 5-38 gives an outline of the current state of affairs regarding key disease indicators for the main EHA’s.. At institutional level, neither HMIS nor WESR cover all recommended topics. At community level, a significant number of indicators still lack a baseline reference (Oct’04). These missing household data will be documented in a comprehensive survey fielded before FC. That effort will include laying the groundwork for a Village Sentinel Surveillance System. The VSSS initially would try to complete 2 rounds a year, one for each season. Also, over the year 2005, it should further integrate the socio-economic and labour related indices required by various other (EAMP, RAP) chapters of the SDP.

Baseline surveys (once only) and the VSSS (seasonal) constitute the slower household track compared to the more frequent WESR (weekly) and HMIS (monthly) institutional data collections. NT2 can support progressive hybridisation and unification of VSSS, WESR and HMIS by providing data handling expertise and communication technology. Expertise refers to the PMU in the PHO and the S&M Unit at IFMT. Technology points to the DHO’s telephones and computers, allowing access to a Vientiane based Internet server. Handheld computers with keyboards and USB ports run on 2 AA batteries. They carry MS Excel, useful for Health Centre staff to document three (electronic copies of 3 paper) registers.

The first is the consultation register that builds up daily as patients come see their HC caretakers. The second and third grow monthly, after each Village’s Health Volunteer briefed their HC supervisors on recent births and deaths in their villages. If the latter included symptoms preceding death, better still established or at least presumed diagnosis, central authorities would get a monthly update on HC or village level morbi-mortality by cause. Data would retain their full unconsolidated detail, and could be visualised in ongoing graphs and maps administered at central level. Feedback to those providing primary data would reach the province and districts instantly, and the HC or VHV’s monthly. Radiotelephony using the fixed DHO phone line could insert Health Centres in the instant feedback loop. Drug Revolving and Equity Fund management would benefit from the set-up as well.

These propositions are further detailed in Section 5.12.8 (Monitoring Activity Sheets).

5.14.7 Flow of Information

Figure 5-11 depicts the information flow data sources to the surveillance and monitoring task force. The PMU located in the provincial health department in Khammouane province, will contain a centre for data collection and analysis.

Most of the data will be provided by the provincial health department of Khammouane. As NT2 affected areas include also parts of the Northern Boriakhmamay province and Southern Savannakhet province agreements for health data exchange will be obtained from these provinces. Districts directly affected by NT2 will be asked to transmit health data directly to the PMU in Khammouane province for further processing.

Surveys, including the seasonal Village Sentinel Surveillance rounds, will be initiated by the task force and implemented from the community level through to the district and provincial levels.
Figure 5-11: Information Flow

Level | HMIS | WESR | SURVEYS

National |  |  | S&M Task Force
Province |  |  | S&M officer PMU
District |  |  |  
Village |  |  |  
### Figure 5-12: List of Institutions involved in Surveillance and Monitoring

<table>
<thead>
<tr>
<th>ID</th>
<th>MOH/DHHP</th>
<th>PMU</th>
<th>HSU/MOH</th>
<th>CLE</th>
<th>CMPE</th>
<th>IFMT/SwTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Ministry of Health, Department of Hygiene and Health Promotion</td>
<td>Health Officer of the Nam Theun Power Company</td>
<td>Health Statistics Unit, dept. of Planning, Cooperation and Finance, MOH</td>
<td>Centre for Laboratory and Epidemiology</td>
<td>Centre for Malariology, Parasitology and Entomology</td>
<td>Institut de la Francophonie pour la médecine tropical / Swiss Tropical Institute.</td>
</tr>
<tr>
<td>Description of competence</td>
<td>Department of Hygiene and Health promotion at the Ministry of health of Lao PDR. Policy and strategy development and evaluation of matters in the field of Hygiene, Health Prevention and Promotion</td>
<td>Responsible for the implementation of the Public Health Action Plan for NTPC, technical and logistic support to PH activities</td>
<td>HSU of the MOH is the national reference centre for the collection, analysis and dissemination of statistics within the MOH. The data of the HMIS will be collected by the department.</td>
<td>National reference centre for Laboratory diagnosis and epidemiological surveillance of 24 priority diseases. Parasitic disease control except malaria and entomology are the new responsibilities of the centre.</td>
<td>National reference centre for malaria and dengue control and research activities. Coordination of network of malaria stations at provincial and district level with technical staff.</td>
<td>IFMT: Regional Institute for tropical medicine. Training is main activity (post-graduate course in tropical medicine). In addition service support and research projects are implemented. SwTI is a research, training and service support institution in Switzerland supporting IFMT since 2000.</td>
</tr>
<tr>
<td>Location</td>
<td>Vientiane</td>
<td>Vientiane</td>
<td>Vientiane</td>
<td>Vientiane</td>
<td>Vientiane</td>
<td>IFMT: Vientiane; SwTI: Basel, Switzerland</td>
</tr>
<tr>
<td>Responsibility</td>
<td>(1) overall responsibility and coordination of S&amp;M activities.</td>
<td>(1) overall responsibility of implementation of S&amp;M activities for NTPC, (2) assistance to MOH/DPH for implementation PHAP</td>
<td>(1) collection of HMIS, (2) reporting to PMU and MOH/DPH</td>
<td>(1) collection of WESR, (2) reporting to PMU and MOH/DPH</td>
<td>(1) implementation of malaria and dengue related surveys (disease and vectors) through the network of malaria stations and technical personnel reporting to MOH/DPH</td>
<td>(1) epidemiological and clinical expertise to S&amp;M activities, (2) implementation of specific S&amp;M surveys, (3) reporting to PMU and MOH/DPH</td>
</tr>
<tr>
<td>Contact</td>
<td>Dr Bounlay Phommasack</td>
<td>Health Officer, NGOs</td>
<td>MOH, Dept. Planning/Finance, Dr Zawadi</td>
<td>Dr Sithat Insisiengmay</td>
<td>Dr Samlane Phompida</td>
<td>IFMT: Pr M Strobel SwTI: Pr M. Tanner</td>
</tr>
</tbody>
</table>

The different Provincial Health Offices will be responsible for the collection and forwarding of routine data in their provinces. They will be consulted and participate in the different surveys. WHO will be requested to participate and/or advise on technical issues.
Figure 5-13: Organizational Chart of S&M Task Force
5.14.8 Monitoring Activity Sheets

### Activity Sheet 1: Biannual S&M Task Force Meeting

<table>
<thead>
<tr>
<th>Activity Sheet 1</th>
<th>Biannual S&amp;M Task Force Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To conduct a biannual task force meeting in Vientiane.</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Plan prepare and document the biannual S&amp;M task force meeting.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>PMU will have to gather all the members of the task force meeting every 6 months which will last for 1 full day, preferably conducted at the MOH in Vientiane. The preparation of the meeting will take considerable time as well as the compiling of the minutes and follow-up of the documents. The preparation of the meeting will be conducted by the PMU. This activity will last up to 2014 (2 years longer than the other activities) in order to allow the S&amp;M of late emerging adverse impacts.</td>
</tr>
<tr>
<td><strong>Target Pop</strong></td>
<td>S&amp;M task force members (10 members)</td>
</tr>
<tr>
<td><strong>Implementing Institution</strong></td>
<td>MOH/DHHP in collaboration with PMU</td>
</tr>
<tr>
<td><strong>Time period</strong></td>
<td>From January 2005 onwards for 8 years, and 2 years follow-ups; end: 2014</td>
</tr>
<tr>
<td><strong>Person-time/activity</strong></td>
<td>10 members of the S&amp;M task force in each meeting</td>
</tr>
<tr>
<td><strong>Material</strong></td>
<td>---</td>
</tr>
</tbody>
</table>

### Activity Sheet 2: PMU : Routine Data Collection, Analysis and Reporting

<table>
<thead>
<tr>
<th>Activity Sheet 2</th>
<th>PMU: Routine Data Collection, Analysis and Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To assist the PMU (most probably located in provincial health office of Khammouane) to fulfill this task.</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Routine data collection, analysis and reporting under the supervision of the PMU and with scientific support of IFMT/SwTI.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>A technical local assistant (preferably medical doctor with a degree in public health or similar) will have to be engaged for the routine data collection, analysis, interpretation and reporting. This work will be conducted under the supervision of the PMU in charge of implementation of all the PHAP. These activities will last two years longer as activity no 1 (reason see above).</td>
</tr>
<tr>
<td><strong>Target Pop</strong></td>
<td>---</td>
</tr>
<tr>
<td><strong>Implementing Institution</strong></td>
<td>PMU (technically supported by the IFMT/SwTI S&amp;M Unit)</td>
</tr>
<tr>
<td><strong>Time period</strong></td>
<td>Start January 2005, end 2014 (as activity no 1)</td>
</tr>
<tr>
<td><strong>Person-time/activity</strong></td>
<td>1 Lao medical doctor (preferably with post-graduate degree in public health), full-time</td>
</tr>
<tr>
<td><strong>Material</strong></td>
<td>1 computer and software</td>
</tr>
</tbody>
</table>
### Activity Sheet 3: Implementation of a VSSS in Khammouane Province

<table>
<thead>
<tr>
<th>AS 3</th>
<th>Implementation of a VSSS in Khammouane Province</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To develop a Village Sentinel Surveillance System in Khammouane Province.</td>
</tr>
</tbody>
</table>
| **Activities** | - To provide the necessary reporting technology  
- To train all involved personnel in the management of the VSSS  
- To support the set up and priming of a VSSS in Khammouane province |
| **Description** | The complementary baseline survey design (cf. AS 8) can include stratification and selection of a representative sub sample of households in the project affected areas. Birth, death, in and out migration numbers are required to know the statistical denominator. From the baseline surveyors a subgroup is selected and supported to fill out the VSSS questionnaires seasonally. Ethical clearance and informed consent is needed from central and sentinel authorities and households. Analytic formats are derived from the full baseline dataset analysis. Indicators used by other NT2 programs are progressively added in. |
| **Target Pop** | The VSSS will be implemented in the districts affected by NT2 of Khammouane and Borikhamxay province. It will start in districts affected by construction and resettlement (4 districts). From 2007 onwards it will include downstream areas (Xebangfai river area) and comprise 8 districts in all. Health authorities in Khammouane province and in Vientiane will be concerned |
| **Implementing Institution** | IFMT/SwTI, PHO and MOH (supported by PMU) |
| **Time period** | Dec-Feb'05 design, Mar-May'05 collection, Jun-Sep'05 analysis, then seasonal follow-up till mid-term review- to decide further extension in time/space |

### Activity Sheet 4: Improvement of WESR/HMIS

<table>
<thead>
<tr>
<th>AS 4a</th>
<th>Improvement of the WESR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To improve the quality and likely expand the function of the WESR</td>
</tr>
</tbody>
</table>
| **Activities** | - To analyse the functioning of the WESR in Khammouane province and identify improvement possibilities in terms of reporting, analysis, interpretation and reporting of the results.  
- To digitalise (adequately) the WESR for Khammouane  
- To explore the possibility of expanding the target data range (cf. HMIS) |
| **Description** | The WESR provides weekly information reports on 20 target health outcomes which require a prompt response. Little support to this reporting system did not allow up to now to analyse the functioning, identify solutions of improvement and to modernize the system. As S&M in Khammouane will depend largely on this system, this task will be conducted for the Khammouane province. Improvement in the collection and handling of the data has already been identified as unsatisfactory. New data sheets should be established, reporting schedules improved and central database digitalised and reporting and dissemination of information optimised. |
| **Target Pop** | The hybrid WESR will be implemented in the districts affected by NT2 of Khammouane and Borikhamxay province. It will start in districts affected by construction and camp followers (4 districts). From 2007 onwards it will also include downstream areas (Xebangfai river area) and comprise 8 districts in all. Health authorities in Khammouane province and Vientiane will be concerned. |
| **Implementing Institution** | CLE, HSU and IFMT/SwTI |
| **Time period** | October-December 2004, some follow-up in 2005 & 2006, follow-up in 2009 |
### Activity Sheet 5: Outbreak Detection & Response Preparedness for Khammouane

<table>
<thead>
<tr>
<th>AS 5</th>
<th>Development and functioning of the Outbreak Detection and Response Preparedness System for the province of Khammouane</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To establish within the provincial health office of Khammouane a unit of rapid responds system dealing with emergency outbreak interventions of the province which comprises the investigation of outbreaks and the initiation (and coordination) of the response (intervention).</td>
</tr>
</tbody>
</table>
| **Activities** | - To set-up an outbreak detection and rapid response unit in the health office of Khammouane provincial health office  
- To train the unit.  
- Provide a stock of protective clothing and diagnostic instruments required for investigations (masks, gloves, fast thermometers  
- Provide a contingency fund for the urgent purchase of items required for the outbreak interventions (ORS, Antibiotics, Blood transfusions, etc.)  
- To follow-up routine data system, identify and investigate outbreaks  
- To initiate and coordinate response interventions. |
| **Description** | Rapid response is to be set up in the PHO. The head of the unit will be the director of provincial health. The PMU will assist the unit with initial training and contribute to the organization and implementation of the response activities in the first years. |
| **Target Pop** | Authorities in Khammouane and population of Khammouane province |
| **Implementing Institution** | CLE & Khammouane provincial health department |
| **Time period** | Jan-Feb 2005, routing follow-up 2005-2012 |
| **Material** | Emergency materials |

### Activity Sheet 6: Scientific Support for Data Collection, Analysis and Reporting

<table>
<thead>
<tr>
<th>AS 6</th>
<th>Scientific support for data collection, analysis, interpretation and reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To provide adequate support and assistance in all scientific aspects S&amp;M activities in order to guarantee a high degree of scientific rigour in the implementation of all S&amp;M activities.</td>
</tr>
</tbody>
</table>
| **Activities** | - to set-up a scientific support unit at IFMT, supported scientifically, administratively and financially by Swiss Tropical Institute (SwTI)  
- to provide scientific support to all aspects of S&M |
## Chapter 5: Health Impact Assessment and Public Health Action Plan

### Activity Sheet 7: Analysis of Existing Health Data of the Nakai Population

<table>
<thead>
<tr>
<th>AS 7</th>
<th>Analysis of existing health data of Nakai population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To analyse and report on all baseline health survey on Nakai population.</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>To analyse and all available reports and data on health data on the Nakai population.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>A series of documents on the health status of the Nakai Population has been conducted over the past years (since 1996). In addition in 2001 a comprehensive socio-economic survey was conducted. No comprehensive integral analysis of all this information has been compiled. Furthermore, there are still highly relevant raw data available which have not been properly analysed and reported. It of major importance to conduct a proper analysis and integral compilation of all this information and data before starting any further detailed data collection. The available data will highlight what, how, when and how much of future data collection is required and will be the basis of all S&amp;M activities proposed in the chapter.</td>
</tr>
</tbody>
</table>

| **Target Pop** | --- |
| **Implementing Institution** | IFMT/SwTI |
| **Person-time/activity** | - will be specified later |
| **Material** | hard– and software for Lao epidemiologist |

### Activity Sheet 8: Baseline Surveys on Priority Health Issues

<table>
<thead>
<tr>
<th>AS 8</th>
<th>Implementation of baseline surveys on priority health issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>To perform additional baseline surveys on missing indicators</td>
</tr>
</tbody>
</table>
| **Activities** | - Plan, implement and analyse qualitative and quantitative base-line surveys. 
- Coordinate the surveys with all national and international institutions concerned (CMPE, NTC, NCCA, CLE, SwTI). |
| **Description** | A detailed description of additional surveys is not yet available. Protocols will be designed between October and December 2004. Undocumented diseases include typhus, meningitis, leptospirosis, dengue (hemorrhagic form), poisoning, violent |
injuries, substance abuse and mental health disorders. Complementary surveys will be conducted as soon as possible. Activity no 7 is the bases for these surveys. Implementation will start for the Nakai population as it is the first affected by NT2 (during construction). Further base-line studies (Xe Bangfai area) can be delayed until 2006 or 7 as these areas are affected only marginally by the construction period. Course participants following an international postgraduate course at IFMT will have the chance to participate in the survey either as in groups or individually. No personnel budget is necessary for these as course members have scholarships.

<table>
<thead>
<tr>
<th>Target Pop</th>
<th>Nakai population : 2005 Xe Bangfai river basin population (selected high risk areas): 2006/7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing Institution</td>
<td>Coordination: IFMT/SwTI Participation: CMPE, NTC, CLE, NCCA</td>
</tr>
<tr>
<td>Time period</td>
<td>November 2004 – June 2005 Nakai plateau, 2006/7: Xe Bangfai area</td>
</tr>
</tbody>
</table>

**Activity Sheet 9: Follow-up Surveys on Priority Health Issues**

**AS 9** Follow-up surveys on priority health issues  
**Objective** To perform follow-up surveys on priority health outcomes.

**Activities**
- Explore the links or possible substitution by the VSSS, or other
- Plan, implement and analyse qualitative and quantitative follow-up surveys in the affected populations.
- Coordination of the follow-up surveys with the all national and international institutions (CMPE, NTC, NCCA, CLE, SwTI).

**Description** As for the base-line surveys, the protocols are not established but be set-up in between October and December 2004. The periodicity of the follow-up survey depends on the indicators.

<table>
<thead>
<tr>
<th>Target Pop</th>
<th>2007 : Nakai population 2009-12: Nakai and Xe Bangfai river basin population (selected high risk areas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing Institution</td>
<td>Coordination: IFMT/SwTI Participation: CMPE, NTC, CLE, NCCA</td>
</tr>
<tr>
<td>Time period</td>
<td>Follow-up survey are planned for 2007, 2009, 2011 and 2012.</td>
</tr>
</tbody>
</table>

5.15 **CAPACITY BUILDING**

Many documents recognise the poor skill and training levels of Lao Health professionals as one of the most important weaknesses of the Lao Public Health System. This problem is even worse in the rural and remote areas were the three Health Programs will be active. Therefore the PHAP regards capacity building as a major strategy for realising its objectives.

Skills required for implementing the PHAP activities include the following:

**Technical Areas:**
- Diagnosis and Treatment in District or Higher Hospitals for DH and HC staff
- Intermediate surgery, specifically addressing Accidents but also for Emergency Obstetric Care
- Emergency and Intensive Care (stabilization of seriously injured patients requiring transfer)
- Disaster Management (multiple person accidents)
- Maternal Care, normal deliveries, complicated deliveries, Emergency Obstetric Care
- Blood transfusion
- Laboratory services
- X-ray
- Ultrasound
- Sexual Transmitted Infections
- Mental Health (Recognition, Treatment, Referral)
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- Nutrition and growth monitoring
- Family Planning
- School deworming program
- Basic Nursing Skills
- Behavioural Change Communication
- Counselling

Managerial and administrative areas:
- ICHC management systems (Family file Management, Community participation study tour, all management aspects)
- Outbreak Response Preparedness
- Drug Revolving Fund management
- Health Program Management
- Management of Ambulance Services
- Inspection of food handlers
- Medical Waste Handling

The above list is not exhaustive and needs to be reviewed during detailed yearly planning. A training needs assessment would be more constructive in its planning than in its intelligence aspects: the low attendance numbers (cf. Annex 5-6) currently observed at district and lower health facilities correlate with poor or diminishing skills of its staff in most of the areas listed. More cost-effective is to have training needs assessed as an integral part of on-the-job training, where the first week’s performance is compared to the last’s. Hands-on training generates confidence, and is best conducted at Provincial or National level, so as to increase the caseload and enhance nascent skills.

First training topics should be addressed as soon as possible. Some of the urgently needed skills (intermediate surgery, radiology, etc.) might require training periods of up to nine months. Therefore the MOH will need to post health professionals with those specific skills, even temporary, while other staff is being trained.

The training budget has been calculated based on current Khammouane staff numbers and using the unit training costs carefully calculated by the HSIP. The same project also provided a list of courses, institutions and teachers available for capacity building (cf. infra) The PHAP training component will follow this road map as feasible and as required.

At present the Resettlement Health Program proposes to train 4-6 persons from the resettled communities as Primary Health Care workers. A three year training which will be conducted in Thakhek Public Health School and is specifically targeting ethnic minority people. These persons will later be employed by the MOH and posted to the 2 new Integrated Community Health Centres of the resettlement area and the Nakai District Hospital. The Regional Health Programme proposes to fund a 6m training for Thakhek Hospital staff in skills related to the NT2 expected impacts, i.e. emergency medicine (2 doctors), bacteriology (2 lab assistants) and wound dressing (2 auxiliary nurses).

The PMU will be responsible for organising and supervising implementation and quality of the trainings.

5.16 Technical Assistance

Following table illustrates how technical assistance could be distributed over the various activities and tasks the PHAP foresees. Many of the required interventions would find useful documents and materials already available, and these could readily be adapted. Others are less so, and only an initial literature review can ascertain whether original research is warranted.
Table 5-39: PHAP activities in need of TA

<table>
<thead>
<tr>
<th>Role</th>
<th>Activities</th>
<th>Duration (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TMRC Staff</strong></td>
<td>Monitor traditional health practices and ingredients for traditional medicines</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Set up a botanical garden/ herbarium with medicinal plants near Nakai DH</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Create a Traditional Medicine Department at the District Hospital</td>
<td>1</td>
</tr>
<tr>
<td><strong>Epidemiologist</strong></td>
<td>Set up a scientific support unit at IFMT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Analyse WESR functioning in Khammouane and identify improvement possibilities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Run an STD surveillance program for P&amp;DCCA staff in STI control &amp; data management</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Develop a food / water borne illness outbreak response plan &amp; investigation procedures</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Develop and implement the cohort Village Sentinel Surveillance System</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Monitor the mental health situation through surveys</td>
<td>3</td>
</tr>
<tr>
<td><strong>Laboratory Technician</strong></td>
<td>Conduct Quality Controls for malaria laboratory examinations</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Improve the TB laboratory diagnostic capabilities in collaboration with the 3 Districts</td>
<td>2</td>
</tr>
<tr>
<td><strong>Medical Anthropologist</strong></td>
<td>Together with the MTCPC, design education messages and programs re road safety</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Design BCC messages and formats for prevention and management of ARI and TBC</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Monitor traditional health practices and ingredients for traditional medicines</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Design BCC messages and sessions on food sanitation awareness for local restaurants and open stall markets / Design BCC messages and programs regarding fecal/oral transmission of diseases and helminths</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Design messages &amp; methods to improve treatment of STI by private pharmacies / Design messages &amp; methods to sensitize private pharmacies re data collection on STI’s</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Design education messages and programs regarding prevention &amp; treatment of dengue</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Design IEC messages &amp; campaigns re preventing murine / scrub typhus &amp; leptospirosis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Design BCC messages on correct child weaning/feeding with changing food types</td>
<td>2</td>
</tr>
<tr>
<td><strong>Health Logistics Officer</strong></td>
<td>Develop procedures for a patient referral system</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Conduct training in dengue vector control, incl. use of insecticide and spray equipments for DHO and HC staff in case of outbreak</td>
<td>3</td>
</tr>
<tr>
<td><strong>Health Manager / Economist</strong></td>
<td>Provide technical, administrative, management &amp; monitoring systems for HC, DH, DHO</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Adapt ICHC accounting and management systems &amp; required forms (cf. ICHC manual)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Design a system for cost recovery of consumables and operations (HC, DH)</td>
<td>10</td>
</tr>
<tr>
<td><strong>Psychological Anthropologist</strong></td>
<td>Identify adapted HIV counseling content and techniques for volunteer testers</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Design BCC messages and campaigns on mental health for villagers</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Design IEC messages for schools on substance abuses</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Train staff on diagnosis and treatment of psychosocial disorders in PH Thakhek</td>
<td>3</td>
</tr>
</tbody>
</table>

Management expertise is best transferred through on-the-job training, and can then quickly phase out foreign assistance. ICHC techniques have been amply documented in various application manuals. The various medical research institutes can provide all pertinent laboratory expertise. The Traditional Medicine
Research Centre has been setting up herbal gardens and medicinal hospital departments elsewhere. They’re also well versed in monitoring practices and ingredients.

It should also be noted that in particular BCC cannot be effective if the messages brought are not both compatible with current cultural representations, and delivered by a person whom the audience relates to (preferably using their mother tongue and revisiting regularly). Just telling people what to do without answering the questions implied by their way of understanding events, has no effect on behaviour change. Posters have often been found to be the least appealing channel for information dissemination, a visiting curative team to be the best.

**Not least, a comprehensive mid-term evaluation must be budgeted for (6 person-months).**
Annex 5-1: Selected National, Regional and Provincial Health Indicators

Following table summarizes selected health indicators for Lao PDR with statistics aggregated at the national, and regional level (Central) and, where appropriate, at the provincial level (Khammouane).

Table 5-40: Selected National, Regional and Provincial Health Indicators (as of mid 1990’s).

<table>
<thead>
<tr>
<th>Selected health indicators</th>
<th>National</th>
<th>Central region</th>
<th>Khammouane province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within last 2 weeks (%)</td>
<td>1.9</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>With symptoms suspected of malaria</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive blood tests of those who sought healthcare (%)</td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td><em>Plasmodium falciparum</em> prevalence assessed by rapid test/dipstick (%)</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Morbidity (per 1000 population)</td>
<td>48.5</td>
<td></td>
<td>104.7</td>
</tr>
<tr>
<td>Acute respiratory infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illness with cough, accompanied by rapid/difficult breathing, chest problem, blocked nose in previous 2 weeks</td>
<td>1%</td>
<td>&lt;5</td>
<td>10.7 (incidence rate)</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 3 watery stools per day among children aged 6-5 years</td>
<td>6.2</td>
<td>7.2</td>
<td></td>
</tr>
<tr>
<td>&lt; 5 years (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vital statistics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude birth rate (per 1,000 population)</td>
<td>34</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Crude death rate (per 1,000 population)</td>
<td>6.4</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>Maternal mortality rate, related to pregnancy, delivery and 6 weeks post-partum (per 100,000 live births)</td>
<td>530</td>
<td>440</td>
<td></td>
</tr>
<tr>
<td>Neonatal mortality rate (within 28 days) (per 1,000 births)</td>
<td>36.2</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td>Infant mortality rate (per 1,000 live births)</td>
<td>82.2</td>
<td>75.7</td>
<td>91.5</td>
</tr>
<tr>
<td>Under-5 mortality rate (per 1,000 live births)</td>
<td>106.9</td>
<td>98.9</td>
<td>116.2</td>
</tr>
<tr>
<td>Micronutrient deficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitamin A supplementation to children aged 6-59 months (last 6 months) (% of age group)</td>
<td>28.8</td>
<td>26.2</td>
<td></td>
</tr>
<tr>
<td>Low serum retinol in all age groups (&lt; 0.7 µmol/l) (%)</td>
<td>30.9</td>
<td>31.7</td>
<td></td>
</tr>
<tr>
<td>Goiter among children aged 6-12 years (%)</td>
<td>9.1</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Urine iodine secretion among children aged 8-12 years (&lt; 5 µg/dl)</td>
<td>7.1</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Iron deficiency among all age groups (&lt; 7 g/dl)</td>
<td>1.2</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Child malnutrition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stunting (%)</td>
<td>40.7</td>
<td>37.0</td>
<td></td>
</tr>
<tr>
<td>Wasting (%)</td>
<td>15.4</td>
<td>12.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Ministry Of Health, 2001)

The next data sheets (Tables 5.11 – 5.13) are derived from the 2003 World Bank survey tables, hence are intended to provide the latest available statistics for Lao PDR, both at the national and provincial level (World Bank, 2004). Presentation of statistics is restricted to those three provinces where the NT2 Project will be implemented, namely Khammouane, Bolikhamxai and Savannakhet.
### Table 5-41: Baseline Demographic Data for the 3 Provinces Affected by the Project

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Khammouane</td>
</tr>
<tr>
<td></td>
<td>Bolikhamxai</td>
</tr>
<tr>
<td></td>
<td>Savannakhet</td>
</tr>
<tr>
<td>Population (in 1,000)</td>
<td>310.0</td>
</tr>
<tr>
<td>Number of districts</td>
<td>9</td>
</tr>
<tr>
<td>Total villages</td>
<td>450</td>
</tr>
<tr>
<td>Number of households</td>
<td>55,231</td>
</tr>
<tr>
<td>Average household size</td>
<td>5.7</td>
</tr>
<tr>
<td>Life expectancy (years)</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>57</td>
</tr>
<tr>
<td>Females</td>
<td>54</td>
</tr>
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</table>


### Table 5-42: Baseline Vital Statistics for 3 Provinces and Corresponding National Figures.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Province</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Khammouane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bolikhamxai</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Savannakhet</td>
<td></td>
</tr>
<tr>
<td>Crude birth rate</td>
<td>37.0</td>
<td></td>
</tr>
<tr>
<td>Neonatal mortality rate</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>91.5</td>
<td></td>
</tr>
<tr>
<td>Under-5 mortality rate</td>
<td>116.2</td>
<td></td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>5.4</td>
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</tr>
</tbody>
</table>

### Table 5-43: Baseline Disease Rates and Selected Health Indicators in 3 Lao Provinces

<table>
<thead>
<tr>
<th>Disease rates and other health indicators</th>
<th>Province</th>
<th>National</th>
<th>Data source</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Khammouane</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Bolikhamxai</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Savannakhet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td></td>
<td></td>
<td>CMPE, 2002</td>
</tr>
<tr>
<td>Total cases</td>
<td>34,379</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total slides examined</td>
<td>32,738</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cases at hospital</td>
<td>1,641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total severe cases</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria-attributable death</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide positivity rate (%)</td>
<td>4.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morbidity (per 1,000)</td>
<td>104.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality (per 1,000)</td>
<td>5.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage rate ITNs (%)</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population protection rate (%)</td>
<td>83.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarrhoea (children &lt; 5 years)</td>
<td></td>
<td></td>
<td>EU, 2002</td>
</tr>
<tr>
<td>Total cases</td>
<td>1,476</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence rate (per 1,000)</td>
<td>2.8</td>
<td></td>
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</tr>
<tr>
<td>Severe cases</td>
<td>118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated at health care facility (%)</td>
<td>80.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute respiratory infection</td>
<td></td>
<td></td>
<td>EU, 2002</td>
</tr>
<tr>
<td>Total cases children &lt; 5 years</td>
<td>5,562</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence rate (per 1,000)</td>
<td>10.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td></td>
<td></td>
<td>MoH, 2002</td>
</tr>
</tbody>
</table>

124
People with HIV infection 92 9 487 1,102 NCCA, 2003
Total AIDS cases 17 9 286 599 LRHS, 2000
Know how HIV is transmitted (%) 65.5 49.6 81.3 69.3 LRHS, 2000
Know how STIs are transmitted (%) 36.2 49.0 52.0

Water supply and sanitation
Households with access to clean water (%) 38 65 66 50 LECSII, 1998
Households without improved sanitation (%) 78 89 71 LECS 2

Nutrition
Households with iodised salt (%)
Child aged 6-59 months who received 2 doses of vitamin A

Table 5-42: Medical Personnel in the Project Area Districts (Source: World Bank, 2004).

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>District health office staff</th>
<th>District health staff</th>
<th>District health beds</th>
<th>Medical doctors</th>
<th>Health centre</th>
<th>Health centre staff</th>
<th>Village health voluntee</th>
<th>Traditional birth attendant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khammouane</td>
<td>Nakai</td>
<td>12 11 15 2 5 15 72 114</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gnommalat</td>
<td>22 15 15 2 5 6 71 71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mahaxai</td>
<td>17 16 15 0 6 12 91 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Tahket</td>
<td>19 18 26 2 13 22 220 64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nongbok</td>
<td>21 28 15 4 11 21 72 72</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Xe Bangfai</td>
<td>24 13 15 2 7 12 105 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Bolikhamxai</td>
<td>Khamkeut</td>
<td>19 69 60 8 9 25 169 36</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savannahhet</td>
<td>Xaybuly</td>
<td>5 10 14 1 10 25 97 88</td>
<td></td>
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<td></td>
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November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1
Annex 5-2: Background Data Source Materials


Cross-sectional survey carried out among 501 individuals from 5 villages located in the reservoir area in 1989/1990. High prevalences were found for intestinal parasites (Ascaris lumbricoides: 46%, hookworm: 25%, Opisthorchis viverrini: 22%, Trichuris trichiura: 21%) and malaria (Plasmodium falciparum: 53%, P. vivax: 44%, P. malariae: 1.1%).

“Snail-Mediated Diseases of Nam Theun 2 Project in Khammouane and Bolikhamsai Lao PDR, 15 April 1996 Draft” and “Freshwater Snails in the Nam Theun 2 Project Area of Khammouane and Bolikhamsai Provinces, Lao PDR, Revised April 1997”. Author: Chantima Lohachit, Mahidol University, Bangkok, Thailand.

These two studies (draft version of 1996 and revised version of 1997) demonstrated that 10 mollusk species of medical importance were identified and located. The snail intermediate host of Schistosoma mekongi, namely Neotricula aperta (gamma race), were found in the Xe Bangfai at Nakio and Mahaxai villages. Snail screening in field laboratories by the shedding method, and rigorous examination of trematode cercariae in a reference laboratory revealed that snails showed no natural infection. The snail intermediate host of O. viverrini, namely Bithynia siamensis goniomphalos, was found in 2 of the 13 sampling stations within the Project area. Laboratory investigations revealed no natural infection.


- Malaria: employing the rapid ParaSight™ diagnostic test in 5 villages located across the Mahaxai, Gnommalat and Nakai districts, a malaria prevalence of 8.6% was found (42 positive results out of 487 individual tested).
- Opisthorchis infection: the intermediate host snail of O. viverrini (Bithynia spp.) was present and identified at multiple sampling locations.
- Schistosomiasis: the intermediate host snail of S. mekongi (N. aperta gamma race) was found abundantly in one site (Nam Gnom river, located in the village of Thatthot) at the undersurface of small stones.

“The Health Status of Resident Populations in the Nam Theun 2 Project Area, Khammouane Province, Lao PDR”. Author: Khamliene Pholsena and colleagues, Chiang Mai University, Chiang Mai, Thailand, April 1996 (draft) and 1997 (revision).

- A comprehensive study carried out between March and April 1996 among 1,455 people living in nine villages in the impoundment area, including physical examination, rapid clinical nutritional assessment, stool examinations for intestinal parasites and blood smear examinations for malaria parasites


- This document is a comprehensive overview of the epidemiology of malaria in the Mekong river basin (Lao PDR, Cambodia, Myanmar, Thailand, Viet Nam, and the Yunnan Province of the People’s Republic of China), as of the late 1990s utilizing geographical information systems (GIS). Key data on malaria rates, vector species and resistance profiles in Lao PDR are summarized in the overall malaria presentation in Section 5.6.


- Country-wide health data published by region (i.e. North, Central and South) rather than on a provincial level. Consequently, these data have limited utility for the Project.
“Nakai Plateau Health Survey, 2001”. Author: Resettlement Management Unit (RMU).

- The Nakai plateau household survey was an extensive effort and covered 857 households (total population 5,101) from all 17 villages that are proposed for resettlement. As part of the overall household survey, a wealth of health issues, including some medical testing and anthropometric data collection, were performed. Thus far, these data have not been analysed in detail, and hence are not available in published format. Our HIA team has made every effort possible to extract the most relevant data from the electronically available files. The key results are summarized and discussed in Section 5.6, alongside the ones obtained from the extensive household survey carried out in the Xe Bangfai area (see next paragraph).


- The Xe Bangfai household survey was an extensive effort and covered 1,680 households (total population 10,031) from 112 villages located over the entire Xe Bangfai area that is potentially impacted by the Project. As part of the overall survey, a specific health survey, including some medical testing and anthropometric data collection, were performed. These data are summarized and discussed in detail in Section 5.6.


- The most systematic and currently available published prevalence rate data covering a variety of different high-risk groups including long-haul truckers and service workers.

“Interim Report on the Intestinal Parasite Control among Primary School Children in Lao PDR, 2000-2002”. Author: Korea Association of Health Promotion, in collaboration with MOH (Lao PDR) and WHO.

- Comprehensive nation-wide survey carried out between May 2000 and June 2002 to investigate the epidemiology of intestinal parasitic infections among schoolchildren in Lao PDR. To our knowledge, these are the most recent data of intestinal parasites, covering some of the critical PIAs described in the NT2 HIA; hence, they are summarized and discussed in detail in Section 5.6.

“Pest Management Plan, Supplement Annex to the Social Development Plan December, 2003”.

- The pest management plan was a detailed survey of cultivation, fertilization and pesticide use in the Project areas. Frequency of pesticide and fertilizer applications was surveyed in multiple villages throughout the major rice growing regions potentially affected by the Project. In addition, the specific commercially available pesticide products in Lao PDR were determined. A mitigation plan for pesticide and fertilizer use was proposed.

“Health Service Improvement Project. Draft Baseline Survey Report, January 2004”. Authors: MOH Project Coordination Unit.

- This report contains some of the most current provincial and district level health data for hospital staffing, malaria reporting, and immunization rates.

“Field Visit Data Collection for HIA of the NT2 Project”. Authors: HIA Team, February 2004.

- For the preparation of this report, our team surveyed numerous villages across the PIA and collected up-to-date data on the health care delivery system and the most critical diseases at the village, district and provincial level.
Annex 5-3: Health Equity Fund

Most Lao health institutions are depending more and more for their financing on the charging of user fees. Certain health institutions offer staff incentives which are financed by their revenue. This increases the problem of financial accessibility for the many poor people certainly in our target areas. Officially, poor people are exempted from paying fees. However, required drugs or medical supplies are often not available at the institutions and need to be purchased by patients from private pharmacies.

In reality each exempted patients has to be regarded as a financial loss to the institution and indirectly to the staff. As such health institutions are not encouraged to recognise patients as poor.

Moreover most poor patients face important indirect costs such as transport and food, and the opportunity cost of their lost time. This represents a heavy financial burden on them.

A Health Equity Fund takes care of financing the health service related costs of poor persons needing health care. It is responsible for identifying poverty status and for reimbursing expenses. The support might cover direct costs such as examination or intervention fees or fees for drugs or medical consumables, but also indirect costs such as food, cooking utensils and reimbursement of transport costs.

In order to solve the conflict of interests, when health institutions have to identify and exempt poor people or when they have to decide how to use available funding for the poor, a health equity fund works through a third party, creating a so-called purchaser-provider split. Often such a party grants entitlement identity cards, plastified and showing the holder's photograph, in order to dissolve ambiguity upon arrival at a health service. These ID's are the object of an IEC campaign, ensuring that all concerned are aware and comply with their meaning, and endorsing the entitlement decision taken by the village leadership on who is considered “poor” within the village context. The medical expenditure bills are collected monthly and checked by the third party, after which the health service is paid back the amount credited. Indirect costs are settled during supervision visits at village level.

The programme will include all “poor” families in the Resettlement Area (some 75% of whom have been found to belong to that category – cf. HSIP Baseline Survey Report/March 2004). Poor households covered by the Regional Health Plan will need to have a disease that the third party involved recognizes as related to the Project works or to the Dam’s impact itself. The Programme must identify which organisation could play the role of third party as no Lao NGO’s exist in Lao PDR. The LWU, LYU or INGO’s could play a role in performing this function.
## Annex 5-4: Proposed Training Schedule

Ministry of Health  
Project Management Unit of Health  
Services Improvement Project

### SCHEDULE OF LONGER-TERM TRAINING
**FOR HSIP YEAR ONE**

<table>
<thead>
<tr>
<th>No.</th>
<th>Time schedule</th>
<th>Training site</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Mahosot hospital</td>
</tr>
<tr>
<td>1</td>
<td>October - December 2004</td>
<td>Laboratory Radiology</td>
</tr>
<tr>
<td>3</td>
<td>January - March 2005</td>
<td>Pediatrics</td>
</tr>
<tr>
<td>4</td>
<td>April - June 2005</td>
<td>Nursing Emergency ORL</td>
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<tr>
<td>5</td>
<td>July - September 2005</td>
<td>Ultrasound</td>
</tr>
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</table>

### Annex II(b): Detailed description of the content, beneficiaries, and cost of short-term training

<table>
<thead>
<tr>
<th>Training courses (in chronological order) by level, proposed topics, and existing learning materials</th>
<th>Trainers</th>
<th>Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Principal trainers</td>
<td>Potential resource persons</td>
</tr>
<tr>
<td><strong>CENTRAL LEVEL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MG 1 Retraining of DHO core training teams</td>
<td>NIOPH</td>
<td>NIOPH</td>
</tr>
<tr>
<td>1 District health management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Hospital management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Village committee and VHVs/VHP/TBAs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>91 Pedagogy</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROVINCIAL LEVEL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MG 2 TOT of PHO staff to train DHO staff in District Health Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Planning / Budgeting</td>
<td>DHO core training team</td>
<td>PHO Planning and Budget</td>
</tr>
<tr>
<td>2 TOT for DRF management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Supervision to DHO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Health Zone Development</td>
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</tr>
<tr>
<td>5 HMIS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Chapter 5: Health Impact Assessment and Public Health Action Plan

#### Technical Office

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>Pedagogy (PHC)</td>
</tr>
<tr>
<td>96</td>
<td>Operational steps for Drug and Medical Equipment Supply (2000)</td>
</tr>
<tr>
<td>103</td>
<td>Framk Work for District Health Management Team</td>
</tr>
<tr>
<td>104</td>
<td>Review of HMIS (2002)</td>
</tr>
<tr>
<td>107</td>
<td>Supervision from District Level to HC Level</td>
</tr>
<tr>
<td>122</td>
<td>PHC management on provincial and district level</td>
</tr>
<tr>
<td>127</td>
<td>Manual on Procedure of Making the Planning and Management of Gov-Invest (1990)</td>
</tr>
<tr>
<td>128</td>
<td>Manual of Health Management (1990)</td>
</tr>
</tbody>
</table>

#### OU 1

| TOT of PHO staff to train DHO staff to train Village Committees and VHV/VHP |
|-----------------------------|-----------------------------|-----------------------------|
| PHC                         | MCH                         | PHO Technical Office         |
| Peer education (Village, Village health committee, Village reader) |
| 33                          | Savannakhet                 |
| PHO PMU                     |
| Basic Knowledge for Health Education |
| 82                          | Champassack                 |
| Question and Answers for Health (2003) |
| 83                          | PHO MCH                      |
| Pedagogy (PHC)              | PHO FDD                      |
| 91                          | PHO Finance                  |
| Manual on Village Health Committee |
| 125                         | PHO PMU                      |

#### OU 4

<table>
<thead>
<tr>
<th>TOT of PHO (MCH) and PH staff to train TBA and DHO supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCH Mahosot Hsp</td>
</tr>
<tr>
<td>PHO MCH</td>
</tr>
<tr>
<td>Khammouane</td>
</tr>
<tr>
<td>MCH Hsp</td>
</tr>
<tr>
<td>PH staff Champassack</td>
</tr>
<tr>
<td>128 Manual of Health Management (1990)</td>
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#### DISTRICT LEVEL

<table>
<thead>
<tr>
<th>MG 3 Training of DHO staff in District Health Management</th>
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</thead>
<tbody>
<tr>
<td>Planning/Budgeting PHO (2)</td>
</tr>
<tr>
<td>DHO Xaysomboun</td>
</tr>
<tr>
<td>HMIS</td>
</tr>
<tr>
<td>DHO Administration Bolikharmxay</td>
</tr>
<tr>
<td>Personnel management (Job description)</td>
</tr>
<tr>
<td>DHO Finance Khammouane</td>
</tr>
<tr>
<td>4 DRF Management</td>
</tr>
<tr>
<td>DHO Statistics Savannakhet</td>
</tr>
<tr>
<td>Supervision DHI/HCV/HVH/VHP/TBA</td>
</tr>
<tr>
<td>DHO Technical Office Saravanh</td>
</tr>
<tr>
<td>24 Training on Basic knowledge on health education (IEC)</td>
</tr>
<tr>
<td>DHO PMU Champassack</td>
</tr>
<tr>
<td>70 Manual on management for health center staff (2000)</td>
</tr>
<tr>
<td>Sekong</td>
</tr>
<tr>
<td>PHC policy Attapeu</td>
</tr>
<tr>
<td>78 PHC management at Provincial &amp; District Levels</td>
</tr>
<tr>
<td>79 Management for PHO &amp; DHO</td>
</tr>
<tr>
<td>88 Manual on Monitoring</td>
</tr>
<tr>
<td>92 Public Health Management (2003)</td>
</tr>
<tr>
<td>103 Frame work for District Health Management Team</td>
</tr>
<tr>
<td>104 Review of HMIS (2002)</td>
</tr>
<tr>
<td>107 Supervision from District Level to HC Level</td>
</tr>
<tr>
<td>128 Manual of Health Management (1990)</td>
</tr>
</tbody>
</table>

#### MG 5 Training of IDH/DH staff in Hospital Management

<table>
<thead>
<tr>
<th>PHO (1) Director or Deputy Yaysomboun</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HMIS</td>
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</table>

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### Chapter 5: Health Impact Assessment and Public Health Action Plan

**Table:**

<table>
<thead>
<tr>
<th>HS</th>
<th>Training of DHO staff for provider in MCH</th>
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<tbody>
<tr>
<td>4</td>
<td>Manual for Diarrhoeal Patient Care</td>
</tr>
<tr>
<td>6</td>
<td>Training Manual for Nutrition Education</td>
</tr>
<tr>
<td>11</td>
<td>Principle for Practical Delivery</td>
</tr>
<tr>
<td>12</td>
<td>Managing Complications in Pregnancy &amp; Child Birth</td>
</tr>
<tr>
<td>15</td>
<td>Counselling on Breast Feeding</td>
</tr>
<tr>
<td>16</td>
<td>IMCI (introduction, diagnosis, treatment)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HS</th>
<th>TOT of DH staff to train HC staff in diagnosis and treatment of common illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>TOT on Standard treatment guidelines</td>
</tr>
<tr>
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<td>TOT on nursing guidelines</td>
</tr>
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<td>16</td>
<td>IMCI (introduction, diagnosis, treatment)</td>
</tr>
<tr>
<td>30</td>
<td>Manual STD</td>
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<td>Case management for STD</td>
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<td>35</td>
<td>Counselling</td>
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<td>43</td>
<td>Management of complicated malaria</td>
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<td>45</td>
<td>Diagnosis and treatment guidelines for uncomplicated malaria</td>
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<td>84</td>
<td>Diagnosis and treatment for district hospital</td>
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<td>87</td>
<td>Diagnosis and treatment for 7 diseases</td>
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<td>93</td>
<td>National treatment guideline Vol 2</td>
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<td>Clinical guideline for HC staff</td>
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<td>106</td>
<td>National treatment guideline Vol 1</td>
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</table>

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<th>TOT of DHO staff to train Village Committees and VHV/VHP/TBA</th>
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<tr>
<td>29</td>
<td>Manual for village health committee</td>
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<td>82</td>
<td>Basic knowledge for health education</td>
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<tr>
<td>89</td>
<td>Training of Trainers for TBA</td>
</tr>
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<td>Manual on Basic Principles for DKV</td>
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<tr>
<th>HEALTH CENTER LEVEL</th>
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<th>Training of Management</th>
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<tr>
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<td>Training of basic knowledge on health education (IEC)</td>
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<td>Manual on using IBN in malaria control (1997)</td>
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### Chapter 5: Health Impact Assessment and Public Health Action Plan

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<td>PHC policy (9 elements of PHC) DHO (1) MCH and one other 3 DHOs Xay</td>
</tr>
<tr>
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</tr>
<tr>
<td>10</td>
<td>Delivery Technique 9 DHOs Cha</td>
</tr>
<tr>
<td>6</td>
<td>Training Manual for Nutrition Education (2001) 15 DHOs Sav</td>
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<td>13</td>
<td>Guidelines on Family Planning Service for Health Provider (2003) 8 DHOs Sar</td>
</tr>
<tr>
<td>16</td>
<td>IMCI (introduction, diagnosis, treatment, counseling, follow-up) (??) 10 DHOs Cha</td>
</tr>
</tbody>
</table>

### HS 4 Training of HC staff in diagnosis and treatment of common illness

| 5    | PHC policy (9 elements of PHC) DHO (1) Curative and one other 3 DHOs Xay |
| 7    | Standard treatment guidelines DH (1) 6 DHOs Bol |
| 8    | Nursing guidelines 9 DHOs Kha |
| 9    | Supervision VHV/VHP/TBA 15 DHOs Sav |
| 12   | DRF management 8 DHOs Sar |
| 4    | Manual for Diarrhoeal Patient Care (MCH) (1991) 10 DHOs Cha |
| 16   | IMCI (introduction, diagnosis, treatment) 4 DHOs Sek |
| 33   | Peer education |
| 34   | Case management for STD |
| 42   | Diagnosis and treatment guideline for uncomplicated malaria (1999) |
| 45   | Diagnosis and treatment guideline for uncomplicated malaria (2003) |
| 71   | Curriculum of diarrhoea diseases control and ARI for HC staff |
| 75   | Nursing guideline for HC staff |
| 77   | Training course on nursing management (2003) |
| 100  | Clinical guideline for HC staff |
| 106  | National treatment guideline (Vol 1, FDD) (2003) |
| 122  | PHC management at provincial and district level (2004) |
| 126  | Manual on direct observed TB therapy short course (DOTS) for HC staff |

### VILLAGES

<table>
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<tr>
<th>OU 3</th>
<th>Training of Village Health Committee members</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>Manual on malaria knowledge for primary school teacher PHO/Khammouane</td>
</tr>
<tr>
<td>123</td>
<td>Manual on village health committee PHO/Savannakhet</td>
</tr>
</tbody>
</table>

### Training of Village Health Volunteers (VHV) / Village Health Providers (VHP)

| 3    | Training Manual for Oral PHO/Bolikhambay |
### Chapter 5: Health Impact Assessment and Public Health Action Plan

#### Rehydration (MCH)

| 5 | Basic Knowledge on Diarrhoea (MCH) (1996) | PHO/Khammouane |
| 7 | Training Manual on Child Sickness (cold, cough, ARI) (MCH) (2001) | PHO/Savannakhet |
| 8 | Guideline on Mother & Child Health Care for Health Provider (2003) | PHO/Saravanh |
| 19 | IMCI/Management of Sick Infant (1 week to 2 months)(MCH)(??) | PHO/Sekong |
| 24 | Training on Basic Knowledge on Health Education (IEC) | PHO/Attapeu |
| 25 | Manual for Villager Health Education (IEC) | |
| 26 | Basic Knowledge on Health Education (IEC) | |
| 33 | For VHV peer education (2003) | |
| 47 | Manual for VHV on malaria, diarrhea and respiratory system infection | |
| 74 | Curriculum for PHC Worker | |
| 98 | Manual on Basic Principles for DKV | |

#### Training of Traditional Birth Attendants (TBA)

| OU 5 | Training of Traditional Birth Attendants (TBA) | PHO/MCH | PH | TBA | PH/Xaysomboun |
| 108 | TBA guideline | | | | PH/Bolikhamsay |
Annex 5-5: Nakai Indigenous Medicine Changes

(Extract from “Identification of Traditional Health Practices and Medicines: Phase 1” (NTPC Consultancy Report))

Health-seeking on the Plateau

People in Ban Nakai Tai say that 3 to 4 out of 5 now prefer biomedical drugs to traditional herbal remedy. This has become feasible since the NT2 Project provided them with a 26-item Drug Revolving Fund (DRF) back in 2000. The preference seems to have spread to all, whether poor or rich, mother or father, young or old. Only elders still prefer consulting first the spirits with the help of a Moh Yao. Younger people rather borrow money for pills than go pick herbs for treatment. Ban Nong Boua villagers confirm this attitude. But even though having a DRF, they continue to use medicinal plants. In Ban Done severity of presenting symptoms (high fever, abdominal pains, seizures) decides whether to start with herbs or drugs. Conveniently, the District Hospital is a mere 40 minutes ride away (at 5000 kp/p). Nong Boua lies at just 30 minutes away. And prevention goods like impregnated bed nets are now bought from the District Health Office for 8500 kip, against 30,000 when sold in the market.

Makong women in Nong Boua exemplified the most modern attitude to cure. A feverish toddler is given paracetamol on day one, gets a blood check on day two and might return sleep at the hospital as of day three. This usually means getting an intravenous drip, known to be quickly effective. Before, in the old village, caretakers started with herbs until someone returned two hours later with pills. Both sorts were then given jointly, without fear of conflict between them. In fact, health-seeking behaviour generally relies on trial and error until cure or death. Initially, symptoms are given up to 48 hours to abate, before a new remedy or health provider is sought. In roadside villages, this often means just changing the antibiotic. In remote ones natural, biomedical and spiritual means alternate or combine in increasingly rapid succession to ward off imminent death.

A shared view exists on what herbs and drugs have going for or against them. Herbs are free and always somewhere at hand. They show fewer side effects than medicines. Remarkably people find that “when herbs heal, they do it well and the disease doesn’t return”. But preparing an herbal concoction may take up to 48 hours (if e.g. 7 ingredients are all found at distant spots) and isn’t often pleasant to swallow. In addition, few people know enough about formulas and locations to collect a reasonably potent remedy. Not all villages have their herbalist. Since the last one died in the previous Nong Boua, no successor has – yet? - arrived.

In e.g. Ban Done biomedicine was introduced in 2000 and the drug fund has kept revolving thanks to rules strictly applied by the health worker. Drugs work fast, work most of the time, are easy to purchase, easily swallowed and include contraceptives. Diagnosis seems more reliable. But they are not free, must be bought from afar, often give side effects, and steadily lose quality. If used wrongly, they’re outright dangerous. Yet on the whole people trust biomedicine more (a disease may “return” following poor drug regime compliance – and anything, including herbs, will cure a viral 3d fever). Herbal cure takes longer to surface, and only does so half of the time.

A way of preserving tradition officially endorsed by the Ministry of Health is to include industrial as well as natural formulations in revolving drug kits. Conversely, training herbalists to administer a DRF seems quite acceptable. Such a person could decide faster when to change remedies, and one needn’t locate a second person to avail of both functions. If of course s/he were absent, one again would wish for decoupled skills! Certainly a Traditional Birth Attendant, possibly even a Moh Mohn might usefully add drug therapy to their trade. The main criterion for these responsibilities was felt to be literacy and intelligence, not age or experience. Having the educated work with the experienced was called optimal.

Modernizing the Plateau
No struggle was noted in finding Tai Lao names for common herbs. The Ban Done herbalist doesn’t know Makong names for the plants he uses. Though over 60yr he doesn’t speak the language himself. Also e.g., it has been a while since Nong Boua residents replaced burial with cremation. “True, we are Brou (also known as Makong a.k.a. Alem a.k.a. Kha)”, says the health worker, “but we willingly trade our tradition and customs for those of the Lao”.

This process of dilution seems at work in the domain of medicinal knowledge too. Each herbal doctor vanishing without a successor (“Pou nom khi khaan bien, khi khaan khalam” – young people don’t bother with study or discipline) leaves a compendium of medicinal wisdom to lay persons, who patchily apply what little they remember. “Ancient Moh Yah knew what time of the day, the week or the moon to take what part of a plant. We here just go and take what we need and know enough about.” In Nong Boua elders could still cite therapeutic indications, but younger people mostly knew but the names of common medicinal plants.

As ancient practice phases out, modern ways phase in. The young (15-45y) and educated are first to take pills (“Women somewhat later, they're not as often ill”). Once introduced the contagion spreads throughout the household. Ya luang (great medicine) works well and fast, and is promoted by the Ministry. Though Nong Boua’s leader thinks an intelligent Moh Yao might make a good health worker, he doubts a spirit conversely would think of possessing a health worker to call her into divining. (“Science and tradition don’t mix well”). Thus the trend becomes irreversible.

Nakai Tai’s leader (knows he must) fight superstition and runs his village’s DRF. He feels that once the current Moh Yao are gone, no new recruits will step forward, “Or just maybe, if a teenager acts crazy enough and remembers it shows possession. But by then no one might take phi seriously anymore!” But the elders protest: “A diviner is nice to you, not like those in the hospital! Everyone is now cured using drugs but before, everybody got just as well just using plants!” Or against the notion that spirits fear needles: “The phi is there even after a drip starts running; he’ll leave only once he’s properly been fed. “Possibly nevertheless, herbal abortion teas will grow further in popularity, despite their religious prohibition as sinful (bahb), most likely in anomic cities. No honourable Moh Yah could bring himself to prescribe them.

Whether phi flee the needle, or drips drown the pathogen,“ even just pills can cure you, you don’t even need a needle!” Black magic, still practiced some 30 years ago, has likewise lost appeal, "otherwise we’d all be dead by now! (says a Tai Bo man in Nong Boua). The current generation has electricity and thus spots far less, or actually no more phi. “Before, whether you tied your baby’s wrist or not, they still all died anyway!” (as a Makong woman said: I had 11 children, still 6 now”).

In the western technological panoply it isn’t just intravenous drips or impregnated nets that sap the might of spirits. As Moh Bouapha told us: “We used to worship so many phi – the phi nam boh (fountain, ruler of the stream), the phi phon puak (termite hill, ruler of the fields), the phi dong (great tree, rulers of the forest) – but what happened to their power? Sources are channelled, termite hills bulldozed and in minutes the greatest trees get chain sawed. No one prays. Nothing ever happens.”

CONCLUSION

A preliminary survey draws preliminary conclusions. Phase 2 data may dis/confirm these. What follows is tentative and does not state hard facts or verified situations.

Domestic healing practice is either spiritual or medical. At times, spiritual taboos overlap with biomedical advice e.g. against taking infants out in the fields or near decaying corpses. The indigenous frame could in fact be borrowed to spread health education messages. Even not taking a corpse back to its village makes good sense in case of cholera, where sweat and vomit carry pathogens. Blocking phi by marking foreheads or tying strings is not harmful except by unduly reassuring the inexperienced. ‘Tying wrists’ builds on the concept of khwan, a core cultural construct not just in Lao that is certain to survive the Plateau’s immersion.

Yu fai may gradually weaken under modernization but seems worthwhile preserving if not promoting. Notably district hospitals might consider adapting procedures to accommodate a physically, socially and culturally beneficial ritual. Less commendable are some of the tied-in food taboos, or the practice of
feeding newborns chewed rice. Other fire-related practices like *ya horm* do not appear to play a major role. Certainly tourist sauna stations aren’t yet on people’s minds. Massage techniques seem too unskilled at present to combine at such a station.

The preliminary impression is that traditional medicinal remedies fade out under the use of convenient and effective biomedicines. This must be greeted certainly, but some natural formulations hold cure for diseases biomedicine cannot handle. Most aware of this potential is Vientiane’s Traditional Medicine Research Centre (TMRC). It has growing experience with studying (side) effects of traditional substances. It organises workshops to show newly confirmed formulas or ingredients, and making the Moh Ya’s art more reliable. Similarly, Moh Tamnye receive central support for spreading hygienic newborn care. This often means training young literate people to be Traditional Birth Attendants. A good case can nevertheless be made for having youngsters train alongside (illiterate but) more experienced Moh Tamnye (Ban Nong Boua has such an optimal midwife duo).

The Moh Khwan and Moh Sout will help carry the *khwan* meme far into the future. The social support and harmony it seeks fosters individual and collective well-being. A Moh Mohn’s power to heal is nowhere ranked very high, and will likely diminish further under biomedical pressure. Diviners will surely go on giving sense to the “*why*” or “*why me*” questions modern medicine only answers by naming coincidence and risk. Where Moh Yao don’t oppose or delay biomedical compliance, negative impact may be limited.

It would appear a strong trend exists for traditional knowledge, attitudes and beliefs to retreat into the elderly or less educated strata of village life. This uphill battle with science likely will leave the Moh Ya, Tamnye and Khwan standing. While the latter are thriving, the need is for promoting medicinal remedies that bear the test of cure. Phase 2 will identify ingredients if any, unique to the Plateau in order to transplant them in herbaria, plant gardens and appropriate habitats above 538 E.L. Lao or colonial era treatises may suggest promising research topics for the TMRC. In this connection the University of Chicago’s International Biodiversity Group should be funded to further examine how to promote valuable healing practices indigenous to the Plateau. How animal ecology will evolve after the flood no one can say. Excepting some unknown insects and bacteria, unimportant to indigenous medicine, it seems unlikely medicinal species exist that would disappear because of the floods. Using these animals as ingredients does not contribute to their survival either.

Western technology conspires with official ideology to weaken “countryside superstition”. Certainly the young and educated don’t really fight back. Neither do strong self-identity nor clear gender roles seem priorities to the villagers encountered. Only long-term participant observation might qualify this claim. Cultural assimilation may move at this fast pace not least because the concerned actively embrace majority culture and eventually, it would appear, identity. But should valuable indigenous healing power disappear alongside it?
Annex 5-6: Health Related Design Requirements

Project design measures related to the environmental management plan are described in the EAMP, Annex L. Some of these areas mentioned within Annex L also have health implications if designed improperly. Therefore, within this Annex are outlined specific health-related design measures and the applicable table within Annex K that the measures apply to.

Decisions regarding camp sitings shall be made with regard to good drainage options, access to safe water and improved sanitation, sewage disposal, and limited disease transmission potential, particularly malaria and food/water borne illnesses.

Construction work camps
Design specifications for living and working environments include:

- living areas, office environments and enclosed work areas shall be mosquito and fly proof;
- windows should be located to allow natural light in all areas of the unit and should be constructed with 16 mesh screens;
- non-mosquito proof living quarters will be avoided, all living quarters will be provided with ITNs.
- at least 4.6 m² of floor space will be provided per occupant in construction camp living quarters;
- single beds shall be no closer than 1 m laterally and end to end, and double decked beds are spaced not less than 1.2 m both laterally and end to end, and the clear space between the lower and upper bunk is at least 0.68 m;
- there are no triple-deck bunks;
- if wooden flooring is used, floors are elevated at least 30 cm (1 foot) above the ground level; and
- adequate heating (when applicable), air conditioning and ventilation is provided.

Restrooms, showers and toilet facilities are constructed according to the following criteria:

- located within 61 m of each sleeping area, and not closer than 30 m to any sleeping, dining or kitchen area;
- provided with windows screened with 16 mesh material;
- toilet ratio is 1 per 15 persons;
- urinal ratio is 1 per 25 men;
- shower heads are available 1 for every 10 persons;
- hand wash basins are 1 per 10 persons with soap dispensers;
- urinals/toilets are provided with adequate water flush;
- urinal troughs in privies drain freely into the pit or vault and the drain excludes flies and rodents from the pit; and
- floor drains are available in all shower baths and shower rooms.

Medical facilities should be designed to accommodate the anticipated volume, with:

- separate examination, treatment, waiting and isolation areas;
- bedrest area;
- sink with hot and cold potable water in treatment, examination and isolation areas;
- electrical outlets for refrigerator/freezer and autoclave equipment;
- restroom equipped with a sink delivering potable water;
- eyewash station;
- emergency power supply and communication;
- adequate ventilation, lighting and emergency lighting;
• ground/air vehicle available, appropriate for site conditions, and able to accommodate and secure a stretcher; and
• medical waste is separately collected, managed and incinerated at 1,000ºC

Catering facilities shall be designed, at a minimum, to accommodate these requirements:
• provide food service facilities for breakfast, lunch and dinner for each person residing on the location;
• provide for frozen, cold and dry food storage as required to meet local re-supply alternatives with open corrosion resistant shelving to allow air circulation;
• provide floor drains in kitchen areas;
• provide for dry stores area with appropriate temperature (maximum of 3ºC) and humidity (maximum of 60% relative humidity) controls;
• provide for lockable storage for cutlery, china and glassware, linens and any equipment;
• kitchen and food preparation area floors must be non-porous, free of cracks, with smooth cleanable surfaces having rounded cove base molding to at least 10 cm;
• waste food disposal drains must be provided;
• dedicated hand wash sink available in kitchen with hot (43ºC) and cold water;
• doors to outside areas are self-closing;
• food service facilities have back-up sources of electricity and potable water;
• kitchens must have an independent air handling system, or, if on a common system, shall not circulate to other areas; and
• an exhaust ventilation system, including fire protection devices, must be provided for all cooking facilities.

Catering equipment shall, at a minimum, include the following:
• food preparation equipment must be easy to disassemble to encourage frequent and thorough cleaning;
• food handling equipment must meet appropriate international standards;
• counter mounted equipment must be 10 cm above the counter;
• floor mounted equipment must be 15 cm above floor or sealed to the floor;
• all food contact surfaces must be free of pits, crevices, and ledges, inside treads and shoulders, bolts and rivet heads;
• freezer temperatures capable of being maintained at below -18ºC with external thermometers present;
• refrigerators with temperatures maintained at 4ºC with external thermometers present;
• cold food-holding equipment maintains food at 4ºC or lower;
• hot food holding equipment maintains food at 4ºC or higher, whereby holding units and service units must be equipped with sneeze guards;
• pot washing sinks shall be configured with 3 separate sink compartments, namely wash, rinse and sanitize or high temperature;
• ceiling and walls must be light coloured and washable (non-porous); and
• dishwashing and ware washing machines provided that can accommodate either high temperature or chemical sanitizing.

Laundry facilities shall:
• have a concrete floor with trench drain system or a piped manifold washer drain system;
• all equipment shall be stainless steel and of commercial grade;
• hot water is provided to the washers at 71ºC for a minimum of 25 minutes during the wash cycle;
• the water supply shall have a local shut off valve in the laundry room for each washer;
• the dryer area shall be vented with an exhaust fan to remove excess heat build up; and
• facilities are designed to permit space for insecticide treatment of clothing in a well-ventilated area.

Drinking water and sanitation plans shall be provided for construction camps and shall include provisions for safe sources of drinking water compliant with WHO guidelines for drinking water quality (WHO, 2003a). In this context, “safe” refers to a water supply that is of a quality which does not represent a significant health risk, is of sufficient quantity to meet all domestic needs, is available continuously, is available to all the population, and is affordable. These conditions can be summarized with five key words, namely (i) quality, (ii) quantity, (iii) continuity, (iv) coverage, and (v) cost.

The drinking water and sanitation plan shall address:
• water sources;
• water treatment processes by source;
• disinfection procedures;
• testing frequency and plan;
• water reserves;
• distribution networks; and
• emergency water supply and treatment.

Waste Management Plan, EAMP Annex L
The following items should be added to the existing requirements:
• the number of garbage cans and dumpsters provided are sufficient to hold accumulated garbage;
• garbage is stored in rodent proof containers, and with tight fitting lids; and
• sanitary and solid waste is collected daily and covered daily with a solid layer of soil (15-30 cm) or incinerated to prevent insect and rodent access.

On-site traffic and access management plan, EAMP Annex L
Add to existing requirements for the traffic and access management plan to be submitted:
• driver safety training requirements and vehicles standards (seat belts front and back, regular maintenance schedule, etc.);
• pre-employment and annual medical exam requirements for drivers (e.g. vision and hearing tests);
• detailed dust control measures; and
• coordinate with GOL for area access control plan to prohibit the establishment of camp follower villages.

Facilities layout plans
The HCC shall submit layout of temporary facilities including construction camps, sanitary facilities, catering and laundry facilities, and spontaneous resettlement areas to conform to internationally accepted health and sanitation standards and in accordance with applicable international labour regulations.
## Annex 5-7: Core Package of Services

### Core Package of Services (HSIP)

#### A. Village Level

<table>
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<th>Service/Activity</th>
<th>Contents</th>
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<tr>
<td>Health Education, IEC, Communication for behavioral change</td>
<td>Personal hygiene, Sanitation, Prevention of communicable diseases including sensitization on STIs/HIV and EPI, Nutrition, Safe Motherhood promotion.</td>
</tr>
<tr>
<td>Communicable Disease Control</td>
<td>Early detection of cases and referral. Treatment of uncomplicated cases using drug kit. Support for IBN distribution and re-dipping. Support for gradual devolution to villages of DOTS implementation. Support for EPI campaigns.</td>
</tr>
<tr>
<td>Basic Curative care</td>
<td>Appropriate use of drug kits (treatment of uncomplicated cases of fever, pain, diarrhea, coughing, small wounds, skin infections, intestinal worms).</td>
</tr>
</tbody>
</table>

#### B. Health Centers

<table>
<thead>
<tr>
<th>Service/Activity</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Education, IEC, Communication for behavioral change</td>
<td>Personal hygiene, Sanitation, Prevention of communicable diseases including sensitization on STIs/HIV and EPI promotion, Nutrition, Safe Motherhood.</td>
</tr>
<tr>
<td>Communicable Disease Control</td>
<td>Early detection of cases (including microscopy for TB and Malaria) treatment of uncomplicated cases and referral of complicated cases. IBN distribution and re-dipping. Devolution of DOTS implementation to HCs and Villages. Delivery of EPI with fix and portable cold chain. Diagnostic and treatment of STIs.</td>
</tr>
<tr>
<td>Basic Curative Care</td>
<td>Appropriate use of HC drugs (treatment of uncomplicated cases of fever, of uncomplicated malaria, anemia, pain, diarrhea, coughing, small wounds, skin infections, intestinal worms). Minor surgery and referral.</td>
</tr>
<tr>
<td>VHV, TBAs, VHPs: Training, Supervision and Support</td>
<td>See previous table on VHV, TBA and VHP tasks.</td>
</tr>
</tbody>
</table>
### C. District Hospitals (Inpatient and Outpatient Services).

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<thead>
<tr>
<th>Service/Activity</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Education, IEC, Communication for behavioral change</strong></td>
<td>Prevention of communicable diseases including sensitization on STIs/HIV and EPI promotion, Nutrition, Safe Motherhood, Birth spacing.</td>
</tr>
<tr>
<td><strong>Communicable Disease Control</strong></td>
<td>Early detection of cases (including microscopy for TB and Malaria). Treatment of cases and referral of severe complicated cases. DOTS implementation and devolution to HCs and Villages. Diagnostic and treatment of STIs. Blood testing for HIV and other diseases. Immunization and logistic support to HCs and VHPs for immunization, organization of ITN campaigns, Sanitation, IEC.</td>
</tr>
<tr>
<td><strong>Safe Motherhood and Birth spacing</strong></td>
<td>Contraceptive distribution including condoms. Insertion of IUDs. STIs detection and case management. Antenatal and Post-natal care of selected complicated pregnancies and post-partum complications. <strong>District Hospitals Type A:</strong> Manual removal of placenta. Emergency treatment of incomplete abortion. Assistance to complicated deliveries including C Sections and other basic obstetrics procedures, blood transfusion, antibiotic treatment. <strong>District Hospitals Type B:</strong> Basic non-surgical obstetric care and referral.</td>
</tr>
<tr>
<td><strong>Curative Care</strong></td>
<td>Minor surgery and emergency case management and referral. Diagnostic and treatment of internal medicine, pediatrics, infectious diseases patients including complicated and cerebral Malaria, Dengue, ARI, Diarrhea, DOTS (TB).</td>
</tr>
<tr>
<td><strong>Training, Supervision &amp; Support to HCs</strong></td>
<td>See previous table on HC services.</td>
</tr>
</tbody>
</table>

### D. Inter-District Hospitals (Inpatient and Outpatient Services).

<table>
<thead>
<tr>
<th>Service/Activity</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Education/IEC &amp; Communication for behavioral change</strong></td>
<td>Prevention of communicable diseases including sensitization on STIs/HIV and EPI promotion, Nutrition, Safe Motherhood, Birth spacing, Infectious disease outbreaks and case management.</td>
</tr>
<tr>
<td><strong>Communicable Disease Control</strong></td>
<td>Early detection of cases (including microscopy for TB and Malaria). Treatment of cases of severe complicated cases including cerebral malaria, severe dengue fever, typhoid, tetanus, meningitis. DOTS implementation and devolution to HCs and Villages. Diagnostic and treatment of STIs. Blood testing for HIV and other diseases. Immunizations: technical and logistic support to HCs and DHs.</td>
</tr>
<tr>
<td><strong>Safe Motherhood and Birth spacing</strong></td>
<td>Contraceptive distribution including condoms. Insertion of IUDs. Female and male sterilization. STIs detection and case management. Antenatal and Post-natal care of complicated pregnancies and post-partum complications. <strong>Emergency obstetrics:</strong> Manual removal of placenta. Emergency treatment of incomplete abortion and ectopic pregnancy, including curettage.</td>
</tr>
</tbody>
</table>

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8 In DHs type A with trained staffed in basic obstetrics and adequately equipped.
<table>
<thead>
<tr>
<th>Train., Supervision &amp; Support</th>
<th>Assistance to complicated deliveries including C-sections and other basic obstetrical procedures, blood transfusion, antibiotic treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curative Care</td>
<td>Emergency surgery and emergency case management and referral. Includes: intestinal occlusion, stomach perforation, peritonitis, hernia, appendicitis, stone bladder, amputation, fracture reduction and immobilization. Diagnostic and treatment of internal medicine, pediatrics, infectious diseases patients including complicated and cerebral Malaria, Dengue, ARI, Diarrhea, DOTS (TB). Laboratory diagnostic services: blood cells counting, hemoglobin, malaria parasite identification, azotemia, glycemia, liver function tests, stool tests, urine examination.</td>
</tr>
<tr>
<td>See previous tables on DH and HC services.</td>
<td>See previous tables on DH and HC services.</td>
</tr>
</tbody>
</table>
Annex 5-8: Example of an Official Consultation Meeting

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Health
Department of Hygiene and Prevention

No /DOHP

Minute of the NT2 HIA Consultation meeting
Public Health Action Plan proposal
in Khammuane province
15-17/06/04

The meeting was held:
- On Tuesday 15/06/04, at Nakai and Mahaxai districts
- On Wednesday 16/06/04, at Gnommalath district
- On Thursday 17/06/04, at Khammuane province

Number of participants are attached (see list attached)

I Objectives of the consultation:

- To inform provincial, district, local authorities and concerned communities on HIA and public health action plan to mitigate the adverse impacts to the health of the local people of NT2 during the construction, reservoir filling and during the operation phase.
- To collect comments from Khammuane province, Nakai, Mahaxai and Gnommalath districts on Public Health Action Plan and report to the Ministry of Health.

II The following recommendations for the project to be considered:

1. From the Khammuane Provincial Governor:
   - The creation of awareness and knowledge of local people on health prevention and health promotion is very important and should be considered as primary tasks in parallel with other preparation works. Prevention activities should start from now such as what need to done in terms of prevention when we build the new market? Latrines, water supply etc...We have to prepare our plan right now.
   - Request NT2 Project to contribute for the improvement of Khamkeut, Nakai and Gnommalath district hospitals in order to ensure adequate health care service for the increased number of workers, and population. We should start the works from now, in the year 2004-2005, because it is a very urgent matter.
   - Organize Health Education campaign to the local people from now. The establishment of awareness among communities regarding prevention of disease, health education to all people, especially local people who have limited knowledge on prevention.
   - Setting up of provincial health team to work with the Ministry and with the NT2.

2. Recommendations from Nakai, Gnommalat and Mahaxai districts.
   - Establishment of outbreak response team is very urgent. The team should have competence surveillance system on communicable diseases
   - To improve health infrastructure:
     - Increase the number of health care services in order to insure adequate service to the increase number of people.
- To improve the existing facilities and/or construct new district hospitals for the disease burden that will emerge from the NT2 works.
- Train of staffs and supply adequate medical equipment, provision of necessary drugs to district hospital/health center.
- Provision of ambulance

- District hospital should be able to provide health care service in an acceptable manner for emergency or before refer patients to provincial hospital.

- **Access to clean water is very important during the construction of the dam**, provision of public piped water to the district municipality in order to response to the development of the district in the future. The district should have good system of waste management and treatment of water.
- **Capacity building for district health as well as health centres staff and village health volunteer to improve the quality of services.**
- **Provision of communication equipment to facilitate communication between health center and district.**
- **Construction of paved road with traffic signal**
- **Install public telephone to facilitate to the communication with health network**
- **Provision of health equipment: echography, small operation room.**
- **Protection of medicinal plants and combine tradtional medicine with conventional medicine.**
- **For the follower’s camps and restaurants, there is a need to provide clean water and construction of latrines. These works should be prepared and started from now.**
- **In order to protect against malaria and dengue fever we have to provide impregnated bednets and larvicide.**
- **Organize campaign of health education for the prevention of HIV/AIDS/STI among risk groups.**
- **Health check up for workers and their followers.**

3. **Recommendations from Provincial Health Service.**

- **Suggest NT2 to contact and work with Khammuane Provincial Service for any activities related to health, particularly in the resettlement area, some construction of jars for collecting water may be useful for daily use, but it can be harm or any outbreak of dengue fever, if the concerned community do not get information on how to prevent dengue.**
- **Request NT2 to inform the province as well as plan to be cooperated and implemented with the provinces. The plan should be agreed upon with the Ministry, the provincial health service and the NT2.**
- **The province will organize the team for working with the Ministry and NT2.**

Vientiane, 18 June 2004

Deputy Director General
Head of Technical Team

Vientiane, 18 June 2004

Dr Sengdara Vongsouvan
Annex 5-9: Summary of Key Baseline Health Data (Census 2000) on Khammouane Province

<table>
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<tr>
<td>Number of WCBA likely to become pregnant in given year</td>
<td>3,009</td>
<td>3,009</td>
<td>3,009</td>
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<tbody>
<tr>
<td>No. of Children aged 0 - 11 months</td>
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<td>Number of Skywalker villages and % of total villages</td>
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<td>No. of villages &gt;3 hours from a Health Facility</td>
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<th>Xiangkhouang</th>
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<tbody>
<tr>
<td>No. of deliveries at Provincial Hospital attended by trained HS</td>
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<td>741</td>
<td>741</td>
<td>741</td>
<td>741</td>
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<th>Xiangkhouang</th>
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<th>Hinboun</th>
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<th>Hinboun</th>
<th>Xiangkhouang</th>
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</thead>
<tbody>
<tr>
<td>No. of children aged 0-5 yrs who died from ARI</td>
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<td>7</td>
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<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
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</table>
### Malaria

| No. of Malaria cases, as % of “Population at risk” | 1 | 661 | 0.9% | 773 | 3.0% | 228 | 0.9% | 822 | 1.6% | 835 | 3.4% | 398 | 2.0% | 523 | 2.8% | 750 | 3.2% | 810 | 4.8% | 5,902 | 1.9% |
|-------------------------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| No. of Positive slides, and NPR (%)              | 1 | 2 | 2.6% | 54 | 0.1% | 53 | 0.1% | 25 | 2.2% | 56 | 1.3% | 58 | 1.3% | 15 | 3.8% | 7 | 1.9% | 14 | 106 | 498 | 2.2% |
| No. of beds (old and new) and Ave. persons per bed | 1 | 14,200 | 4.0 | 5,794 | 4.0 | 9,410 | 4.0 | 7,718 | 3.7 | 8,590 | 2.3 | 3,243 | 4.0 | 4,075 | 3.0 | 3,641 | 58,135 | 4.0 |
| No. nets impregnated in last 12 mths., and % pop. protected | 1 | 3 | 54.4% | 5,794 | 100.0% | 9,410 | 100% | 0 | 100% | 7,718 | 100% | 8,590 | 100% | 3,243 | 100% | 4,075 | 100% | 3,441 | 100% | 58,135 | 100% |
| No. malaria deaths as % of cases | 1 | 0 | 0.0% | 0 | 0.0% | 1 | 0.1% | 0 | 0.0% | 2 | 0.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.4% | 0 | 0.1% |
| Other Diseases | No. of Pulmonary TB cases diagnosed | 1 | 6 | 35 | 17 | 18 | 2 | 19 | 48 | 132 |
| Health Staff | Provincial Health Office | 3 | 102 |
| | Provincial Hospital | 3 | 198 |
| | District Health Office | 1 | 31 | 15 | 20 | 22 | 16 | 13 | 23 | 43 |
| | District Hospital | 1 | 29 | 14 | 14 | 22 | 12 | 13 | 16 | 149 |
| | Health Centre(s) (Suksala’s) | 1 | 41 | 7 | 20 | 36 | 8 | 11 | 11 | 147 |
| | Total Health Staff | 1 | 59 | 53 | 70 | 89 | 42 | 49 | 36 | 51 | 37 | 763 |
| | Trained health staff/1000 population | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Trained VHW’s | 1 | 220 | 91 | 72 | 77 | 71 | 50 | 108 | 69 | 905 |
| | Trained TBAs | 1 | 64 | 13 | 72 | 36 | 71 | 10 | 70 | 10 | 66 | 430 |

### DATA SOURCES

- **District Health Office**: 1
- **District Planning & Finance Section**: 2
- **Provincial Health Office**: 3
- **Provincial Planning & Finance Department**: 4
- **National Statistics Centre**: 5
- **Maternal Child Health Centre**: 6
- **Centre for Malaria, Parasitology and Entomology**: 7
- **National TB Program**: 8
- **National HIV/AIDS Program**: 9
- **HSIP Project Coordination Unit, MOH**: 10
- **Department of Personnel, MOH**: 11
- **Department of Food and Drugs, MOH**: 12
- **Proxy Data**: 9
### Annex 5-10: Summary of Key Baseline Health Data (Census 2000) on Bolikhamsay Province

**District-**

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<th>Number</th>
<th>Rate or %</th>
<th>Number</th>
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<th>Rate or %</th>
<th>Number</th>
<th>Rate or %</th>
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<td><strong>Total Population</strong></td>
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<td>5</td>
<td>100%</td>
<td>5</td>
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<td>100%</td>
</tr>
<tr>
<td><strong>Male</strong></td>
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<td>15,394</td>
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<td>9,738</td>
<td>50.2%</td>
<td>6,218</td>
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<tr>
<td><strong>Female</strong></td>
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<td>19,365</td>
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<td>13,127</td>
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<td>9,662</td>
<td>49.8%</td>
<td>6,938</td>
<td>49.8%</td>
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<tr>
<td><strong>Women of Child Bearing Age (WCBA)</strong></td>
<td>6</td>
<td>23.0%</td>
<td>9,738</td>
<td>23.0%</td>
<td>6,218</td>
<td>23.0%</td>
<td>4,454</td>
<td>23.0%</td>
<td>7,958</td>
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<td><strong>Married women as a % of WCBA</strong></td>
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<td>6,218</td>
<td>70.4%</td>
<td>4,454</td>
<td>70.4%</td>
<td>3,136</td>
<td>70.4%</td>
<td>5,902</td>
<td>70.4%</td>
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<tr>
<td><strong>No. of WCBA likely to become pregnant in given year</strong></td>
<td>6</td>
<td>16.0%</td>
<td>1,454</td>
<td>16.0%</td>
<td>1,010</td>
<td>16.0%</td>
<td>674</td>
<td>16.0%</td>
<td>1,182</td>
<td>16.0%</td>
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<td><strong>Children 0 - 11 months as a % of population</strong></td>
<td>6</td>
<td>3.4%</td>
<td>411</td>
<td>3.4%</td>
<td>313</td>
<td>3.4%</td>
<td>217</td>
<td>3.4%</td>
<td>411</td>
<td>3.4%</td>
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<tr>
<td><strong>Children 0 - 11 months as a % of population</strong></td>
<td>6</td>
<td>1.7%</td>
<td>1,454</td>
<td>1.7%</td>
<td>1,010</td>
<td>1.7%</td>
<td>674</td>
<td>1.7%</td>
<td>1,182</td>
<td>1.7%</td>
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<tr>
<td><strong>Children 12 - 23 months as a % of population</strong></td>
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<td>3.7%</td>
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<td><strong>Children &lt;5 years old as a % of population</strong></td>
<td>6</td>
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<td>6,461</td>
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<td>4,616</td>
<td>15.7%</td>
<td>2,957</td>
<td>15.7%</td>
<td>6,461</td>
<td>15.7%</td>
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</table>

**Health Facilities and Services**

| Number of beds at Provincial Hospital and BED | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **No. of consultations at Outpatients** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **No. of consultations at Outpatients** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |

**Womens Health**

| No. of pregnant women attending ANC cons. at Hospital | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **No. of deliveries at Provincial Hospital attended by trained HS** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |

**Childrens Health**

| No. and % of children <5yrs who died from ARI | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **No. of cases of Diarrhoea in children <5yrs** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |

**Village Details**

| Number of Villages | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **Number of Villages with Poverty Rating** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **Number of Households in total population, and ave. per HH** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **Number of IBN villages and % of total villages** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **Population "at risk" of Malaria, and % of total population** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |
| **No. of Villages >3 hours from a Health Facility** | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      | 5      | 100%      |

**Data Source**

- Pakxaen
- Thaphalath
- Pakkading
- Bolikham
- Khamkeuth
- Vienghong
- TOTAL

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**Table 3:** Summary of Key Baseline Health Data (Census 2000) on Bolikhamsay Province.
### Malaria

<table>
<thead>
<tr>
<th></th>
<th>No. of Malaria cases, as % of &quot;Population at risk&quot;</th>
<th>No of Positive slides, and SPR (%)</th>
<th>No. nets impregnated in last 12 mths, and % pop. protected</th>
<th>No. malaria deaths as % of cases</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>37 0.2%</td>
<td>1 5 1.6%</td>
<td>1 86.5%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>3</td>
<td>69 0.3%</td>
<td>0 0.0%</td>
<td>2,377 35.4%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>6</td>
<td>336 0.3%</td>
<td>0 0.0%</td>
<td>1,456 34%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>365</td>
<td>219 1.7%</td>
<td>12 1.1%</td>
<td>1,456 34%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>276</td>
<td>738 2.2%</td>
<td>39 3.0%</td>
<td>1,456 34%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>276</td>
<td>72 1.8%</td>
<td>72 7.6%</td>
<td>2,295 46%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>276</td>
<td>1,693 1.6%</td>
<td>142 2.2%</td>
<td>2,295 46%</td>
<td>0 0.0%</td>
</tr>
</tbody>
</table>

### Other Diseases

<table>
<thead>
<tr>
<th></th>
<th>No. of Pulmonary TB cases diagnosed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0%</td>
</tr>
<tr>
<td>3</td>
<td>0.0%</td>
</tr>
<tr>
<td>5</td>
<td>0.0%</td>
</tr>
<tr>
<td>6</td>
<td>5.0%</td>
</tr>
<tr>
<td>39</td>
<td>3.0%</td>
</tr>
<tr>
<td>72</td>
<td>7.6%</td>
</tr>
<tr>
<td>142</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

### Health Staff

<table>
<thead>
<tr>
<th></th>
<th>Provincial Health Office</th>
<th>Provincial Hospital</th>
<th>District Health Office 1</th>
<th>District Health Office 2</th>
<th>District Hospital</th>
<th>Health Centre's (Suksala's)</th>
<th>Total Health Staff</th>
<th>Trained health staff/1000 population</th>
<th>Trained VHV's</th>
<th>Trained TBA's</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>3 95</td>
<td>1 15 17 17 28 7 14 90</td>
<td></td>
<td></td>
<td></td>
<td>30 41 40 51 49 34 393</td>
<td>0.7 1.6 1.0 1.7 0.8 1.8 1.8</td>
<td>1 95</td>
<td>0 4 66 87 36 73 67 36 24 314</td>
</tr>
</tbody>
</table>

### DATA SOURCES

- District Health Office 1
- Provincial Health Office 2
- Provincial Planning & Finance Department 4
- National Statistics Centre 5
- Maternal Child Health Centre 6
- Centre for Malariology, Parasitology and Entomology 7
- National TB Program 8
- National HIV/AIDS Program 9
- HSIP Project Coordination Unit, MOH 10
- Department of Personnel, MOH 11
- Department of food and Drugs, MOH 12

Proxy Data: P Health Centre consultation was based on a PROXY of 4% of Population
### Annex 5-11: Summary of Key Baseline Health Data (Census 2000) on Savannakhet Province

#### District-wise Summary of Key Baseline Data

<table>
<thead>
<tr>
<th>District:</th>
<th>Khanthabouly</th>
<th>Xaybuly</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>104,008</td>
<td>50,229</td>
<td>782,617</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>51,536</td>
<td>24,888</td>
<td>387,787</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>52,472</td>
<td>25,341</td>
<td>394,830</td>
</tr>
<tr>
<td><strong>Women of Child Bearing Age (WCBA)</strong></td>
<td>23,922</td>
<td>14,553</td>
<td>180,002</td>
</tr>
<tr>
<td><strong>Married women as a % of WCBA</strong></td>
<td>16,844</td>
<td>8,133</td>
<td>126,721</td>
</tr>
<tr>
<td><strong>No. of WCBA likely to become pregnant in given year</strong></td>
<td>3,837</td>
<td>1,833</td>
<td>28,872</td>
</tr>
<tr>
<td><strong>Crude Birth Rate (CBR)</strong></td>
<td>3,838</td>
<td>1,833</td>
<td>28,879</td>
</tr>
<tr>
<td><strong>Children 0 - 11 months as a % of population</strong></td>
<td>6,838</td>
<td>3,771</td>
<td>28,879</td>
</tr>
<tr>
<td><strong>Children 12 - 23 months as a % of population</strong></td>
<td>6,744</td>
<td>3,708</td>
<td>28,174</td>
</tr>
<tr>
<td><strong>Children &lt;5 years old as a % of population</strong></td>
<td>16,329</td>
<td>7,886</td>
<td>122,871</td>
</tr>
<tr>
<td><strong>Village Details</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Villages</strong></td>
<td>94</td>
<td>0</td>
<td>1,546</td>
</tr>
<tr>
<td><strong>Number of Villages with Poverty Rating</strong></td>
<td>0</td>
<td>2</td>
<td>519</td>
</tr>
<tr>
<td><strong>Number of Households in total population, and ave. per/HH</strong></td>
<td>16,739</td>
<td>8,084</td>
<td>125,955</td>
</tr>
<tr>
<td><strong>Number of IBN villages and % of total villages</strong></td>
<td>16</td>
<td>31</td>
<td>867</td>
</tr>
<tr>
<td><strong>Population &quot;at risk&quot; of Malaria, and % of total population</strong></td>
<td>6,903</td>
<td>19,399</td>
<td>352,785</td>
</tr>
<tr>
<td><strong>No. of Villages &gt;3 hours from a Health Facility</strong></td>
<td>0</td>
<td>40</td>
<td>356</td>
</tr>
<tr>
<td><strong>No. of villages with Village Drug Kit (with 4 essential drugs)</strong></td>
<td>0</td>
<td>3</td>
<td>317</td>
</tr>
<tr>
<td><strong>No. Population with WES, and % of Total Pop.</strong></td>
<td>104,008</td>
<td>50,229</td>
<td>671,184</td>
</tr>
<tr>
<td><strong>Health Facilities and Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Beds at Provincial Hospital and BOR</strong></td>
<td>160</td>
<td>160</td>
<td>77.4</td>
</tr>
<tr>
<td><strong>Number of Consultations at Outpatients</strong></td>
<td>35,735</td>
<td>35,735</td>
<td>160</td>
</tr>
<tr>
<td><strong>Number of inpatient days</strong></td>
<td>45,190</td>
<td>10</td>
<td>61.8</td>
</tr>
<tr>
<td><strong>Number of Beds at District Hospital and BOR</strong></td>
<td>10</td>
<td>6,543</td>
<td>235</td>
</tr>
<tr>
<td><strong>Number of Consultations at Outpatients</strong></td>
<td>2,254</td>
<td>58,283</td>
<td>63.1</td>
</tr>
<tr>
<td><strong>Number of inpatient days</strong></td>
<td>0</td>
<td>4,852</td>
<td>45,785</td>
</tr>
<tr>
<td><strong>No of functioning Health Centre's (Suksala's)</strong></td>
<td>13</td>
<td>0</td>
<td>97</td>
</tr>
<tr>
<td><strong>Number of General Consultations</strong></td>
<td>7,122</td>
<td>13,069</td>
<td>90,384</td>
</tr>
<tr>
<td><strong>Number of pregnant women in catchment area, and as % of total pop.</strong></td>
<td>104,008</td>
<td>50,229</td>
<td>617,184</td>
</tr>
<tr>
<td><strong>Womens Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. of pregnant women attending ANC cons. at Hospital</strong></td>
<td>165</td>
<td>413</td>
<td>7,934</td>
</tr>
<tr>
<td><strong>No. of pregnant women attending ANC cons. at HC</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>No. and % of pregnant women having at least 2TT</strong></td>
<td>805</td>
<td>274</td>
<td>5,420</td>
</tr>
<tr>
<td><strong>No. and % of women practicing modern FP methods</strong></td>
<td>3,482</td>
<td>1875</td>
<td>32,729</td>
</tr>
<tr>
<td><strong>No. of deliveries at Provincial Hospital attended by trained HS</strong></td>
<td>1,652</td>
<td>1,652</td>
<td>25.8</td>
</tr>
<tr>
<td><strong>No. of deliveries at Hospital attended by trained HS</strong></td>
<td>1</td>
<td>75</td>
<td>1,438</td>
</tr>
<tr>
<td><strong>No. of deliveries at a Health Centre attended by trained HS</strong></td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td><strong>No. of deliveries at home attended by Trained Health Staff</strong></td>
<td>425</td>
<td>1356</td>
<td>7,162</td>
</tr>
<tr>
<td><strong>Childrens Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. and % of children &lt;1 immunised with DPT3</strong></td>
<td>1,474</td>
<td>1102</td>
<td>190,888</td>
</tr>
<tr>
<td><strong>No. and % of children 12-23 m. immunised with MSV</strong></td>
<td>171</td>
<td>716</td>
<td>10,920</td>
</tr>
<tr>
<td><strong>No. and % of children 12-23 m. fully immunised</strong></td>
<td>153</td>
<td>917</td>
<td>8,568</td>
</tr>
<tr>
<td><strong>No. and % of children &lt;5yrs who died from ARI</strong></td>
<td>4</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td><strong>No. of cases of Diarrhoea in children &lt;5yrs</strong></td>
<td>94</td>
<td>257</td>
<td>2,912</td>
</tr>
<tr>
<td><strong>No. and % of children &lt;5yrs who died from Diarrhoea</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Malaria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. of Malaria cases, as % of “Population at risk”</strong></td>
<td>94</td>
<td>59</td>
<td>4,086</td>
</tr>
<tr>
<td><strong>No of Positive slides, and SPR (%)</strong></td>
<td>94</td>
<td>29.3</td>
<td>4,086</td>
</tr>
<tr>
<td><strong>No. of beds (old and new) and Ave. persons per bed</strong></td>
<td>1,929</td>
<td>4,125</td>
<td>110,521</td>
</tr>
<tr>
<td><strong>No. nets impregnated in last 12 mths, and % pop. protected.</strong></td>
<td>1,929</td>
<td>4,125</td>
<td>110,521</td>
</tr>
<tr>
<td><strong>No. malaria deaths as % of cases</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Other Diseases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. Pulmonary TB cases diagnosed.</strong></td>
<td>13</td>
<td>16</td>
<td>350</td>
</tr>
</tbody>
</table>
## Health Staff

<table>
<thead>
<tr>
<th></th>
<th>Provincials Health Office</th>
<th>Provincials Hospital</th>
<th>District Health Office</th>
<th>District Hospital</th>
<th>Health Centre's (Suksala's)</th>
<th>Total Health Staff</th>
<th>Trained health staff/1000 population</th>
<th>Trained VHVs</th>
<th>Trained TBAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province Health Office</td>
<td>3</td>
<td>180</td>
<td>3</td>
<td>307</td>
<td>1</td>
<td>22</td>
<td>0.4</td>
<td>123</td>
<td>57</td>
</tr>
<tr>
<td>District Health Office</td>
<td>1</td>
<td>19</td>
<td>11</td>
<td>22</td>
<td>26</td>
<td>45</td>
<td>1.0</td>
<td>107</td>
<td>74</td>
</tr>
<tr>
<td>Health Centre's</td>
<td>1</td>
<td>15</td>
<td>174</td>
<td></td>
<td></td>
<td>48</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Health Staff</td>
<td>1</td>
<td>45</td>
<td>48</td>
<td></td>
<td></td>
<td>1,201</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trained health staff/1000 population</td>
<td>0.4</td>
<td>1.0</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## DATA SOURCES

- District Health Office
- District Planning & Finance Section
- Provincial Health Office
- Provincial Planning & Finance Department
- National Statistics Centre
- Maternal Child Health Centre
- Centre for Malaria, Parasitology and Entomology
- National TB Program
- National HIV/AIDS Program
- HSIP Project Coordination Unit, MOH
- Department of Personnel, MOH
- Department of Food and Drugs, MOH
- Proxy Data P
Annex 5-12: Program Management Unit

NTPC should create a Public Health Unit with will be responsible for the functioning of the Program Management Unit (PMU). The PMU will coordinate, support, supervise and report on the implementation of the NTPC Public Health Action Plan activities

The major responsibilities of the PMU are following:

**Program Management Structure**

The project management structure consists of the Provincial Health Director and the Project Manager (=International Public Health Expert). It will be based in Thakhek, preferably in the PHO. Both the Provincial Health Director and the Project Manager are responsible for the good functioning of the PMU.

The Provincial Health Management Team (PHMT) meeting is the forum to negotiate and organize the linkage between the Project and the government structure. It is where project management happens between the Provincial Health Director and the Project Manager within the limitations of the PHAP, approved by the Project Steering Committee (PSC). The Project Manager (=Public Health Expert) will become a member of the Provincial Health Management Team.

Any major change to the PHAP has to get prior approval from the PHMT before submitting it to the Project Steering Committee. Official minutes will be written by the Provincial Health Office under direct supervision of the Project Director and will be signed by all the members of the PHMT.

**Mandate of the Program Management Unit (PMU):**

1. Organization, coordination and supervision of the implementation of Public Health Action Plan activities; (Civil works, procurement, training, referral system, support the Health Districts with the implementation of the service delivery, Surveillance and Monitoring);
2. Collection and analysis of the health data on project activities, achievements, problems, and impacts. Support the implementation of different health surveys. Forward data and reports to the S&M Taskforce. This with the scientific support of the IFMT/STI;
3. Oversee the different components of the Resettlement and the Regional Health Plan and assure that their implementation is in line with the PHAP and the PSC agreements;
4. Organize and supervise the implementation of trainings as proposed by the PHAP and the training need assessment;
5. Give Public Health advice to the PHO and DHO direction and implementing staff;
6. Attend the Provincial Health Management Team Meetings;
7. Assist the District Health Office of the project area to prepare their annual District Health Plan and Budget;
8. Prepare a yearly plan and budget for project activities based on the PHAP and consistent with the development of the project;
9. To present the yearly plan and budget for approval, first by the PHMT and finally by the PSC;
10. Administrative and financial management of the project according to the official procedures, this includes procurement of goods and services;
11. Assume responsibilities of the project accounts (cash and bank) for transactions in line with the PHAP, the NTPC financial procedures, the Project Steering Committee (PSC) agreements, and the MOU;
12. Control project finances of the implementing partners (DHO, NGOs, training institutions, etc.);
13. Coordination of different implementing agencies: MOH departments, NGOs, Training Institutions, national organizations;
14. Evaluate the quality of the services delivered by the different implementing agencies;
15. Adaptation of project planning in line with the project’s development, propose required changes to the PHAP to the PSC;

16. Agenda setting for the Project Steering Committee Meeting;

17. Inform the PSC Chairperson about the need for an extraordinary PSC meeting;

18. Preparation of the written invitations to attend the Project Steering Committee Meeting, together with the dissemination of preparatory documents for these meetings to members within the given timescale;

19. Attend the PSC meetings;

20. Secretariat of Project Steering Committee Meetings.

21. On request by NTPC assist the Environmental Management Unit verifying whether the HCC implements and respects the requirements of the Owner as well as his own approved plan regarding the Project Staff Health Program and possibly other health related environmental issues.

The minimum composition of the Public Health Unit/Project Management Unit (PMU) should consist of:
– one International Public Health Expert
– one Medical Doctor, Lao Technical Assistant
– one secretary with accounting skills
– one translator/office assistant
– one driver

The International Public Health Expert should have experience in the field of Public Health (District Health Management, Health System Reform, Health training, Primary Health Care) and with Project Management (planning, budgeting, reporting, evaluation, procurement, management of resources) (see TOR).

The NTPC office will support the PMU with specific administrative tasks (accounting, procurement, custom clearance, legal, auditing, inspection of civil works, etc.).

Ideally the PMU office should be located within the Khammouane Provincial Health Office.
Annex 5-13: TOR and Qualifications Required of Program Management Unit Personnel

**Project Team Leader**

Appointed: by NTPC (approved by MOH)

Location: Based part time in Thakhek, part time in Vientiane, conducting field visits in all of the NT2 project district

Responsibilities: Manager of the NTPC

Timing of required services: Full time 48 months

**Specific Functions:**

1. Organization, coordination and supervision of the implementation of Public Health Action Plan activities; (Civil works, procurement, training, referral system, support the Health Districts with the implementation of the implementation of the service delivery, Surveillance and Monitoring)

2. Supervise the collection and analysis of the health data on project activities, achievements, problems, and impacts. Support the implementation of different health surveys. Forward data and reports to the S&M Taskforce. This with the scientific support of the IFMT/STI;

3. Oversee the different components of the Resettlement and the Regional Health Plan and assure that their implementation is in line with the PHAP and the PSC agreements;

4. Give Public Health advice to the PHO and DHO direction and implementing staff;

5. Coordination of different implementing agencies: MOH departments, NGOs, training institutions, national organizations;

6. Evaluate the quality of the services delivered by the different implementing agencies;

7. Organize and supervise the implementation of trainings as proposed by the PHAP and the training need assessment;

8. Administrative and financial management of the project according to the official procedures, this includes procurement of goods and services;

9. Assume responsibilities of the project accounts (cash and bank) for transactions in line with the PHAP, the NTPC financial procedures, the Project Steering Committee (PSC) agreement, and the MOU;

10. Liaise with the Director Provincial Health Office of Khammouane and the Director of the Social Department of NTPC for project related decisions:

    a. Procurement of goods or services surpassing a certain amount;

    b. Minor changes to the planned activities of the PHAP not requiring PSC approval;

11. Control project finances of the implementing partners (DHO, NGOs, training institutions, etc.);

12. Attend the Provincial Health Management Team Meetings;

13. Assist the District Health Office of the project area to prepare their annual District Health Plan and Budget;

14. Prepare a yearly plan and budget for project activities based on the PHAP and consistent with the development of the project;

15. To present the yearly plan and budget for approval, first by the PHMT and finally by the PSC;

16. Agenda setting for the Project Steering Committee Meeting;

17. Inform the PSC Chairperson about the need for an extraordinary PSC meeting;
18. Preparation of the written invitations to attend the Project Steering Committee Meeting, together with the dissemination of preparatory documents for these meetings to members within the given timescale;

19. Attend the PSC meetings;

20. Secretariat of Project Steering Committee Meetings;

21. Report and brief the Director of the Social Development Plan of the NTPC on achievements and problems on a regular base (monthly);

22. Liaise with different departments of the MOH at central level regarding project issues related to their specific departments;

23. Organizing, managing and supervise the PMU Office and its staff.

Qualifications Required:

- Medical Officer with more than 10 years in experience in Public Health, more specifically in the field of Operational Health Districts, Primary Health Care, Epidemiology, Referral systems, financing systems and health personnel training). Preferably with a Master in Public Health;
- Previous experience with project and personnel management;
- Experience with contracting is preferred;
- Experience in South East Asia is preferred;
- Fluency in English, good working knowledge of French;
- Knowledge of Lao culture is an advantage;
- Good computer skills (Word, Excel, PowerPoint, MS Project, Email)

Good personality, communication skills and ability to work with national and international personnel

Technical Assistant, Lao Medical Doctor

Appointed: by NTPC (approved by MOH)

Location: Based in Gnommalath, with frequent visits in all of the NT2 project district and to Vientiane

Reporting to: Manager of the Social and Resettlement Division, NTPC, through the Project Team Leader

Timing of required services: Full time, 48 months

Specific Functions:

1. Coordinate the collection and analysis of the health data on project activities, achievements, problems, and impacts with MOH, Province and District health staff. Support the implementation of different health surveys. Forward data and reports to the S&M Taskforce. This with the scientific support of the IFMT/STI;

2. Give Public Health advice to the PHO and DHO staff;

3. Organize and supervise the implementation of trainings of PHO and DHO staff as proposed by the PHAP and the training need assessment;

4. Liaise with the Heads of District Health Offices in Khammouane Province and the Manager of Social and Resettlement Division of NTPC for project related decisions:
   - Procurement of goods or services surpassing a certain amount;
   - Minor changes to the planned activities of the PHAP not requiring PSC approval;

5. Attend the Provincial Health Management Unit meetings as well as other relevant meetings;
6. Assist the District Health Office of the project area to prepare their annual District Health Plan and Budget;

7. Prepare a yearly plan and budget for project activities within the districts based on the PHAP and consistent with the development of the project;

8. Agenda setting for the Project Steering Committee Meeting;

9. Inform the PSC Chairperson about the need for an extraordinary PSC meeting;

10. Attend the PSC meetings;

11. Report and brief the Manager of the Social and Resettlement Division of the NTPC on achievements and problems on a regular basis (monthly).

**Qualifications Required:**

- Medical Officer with more than 5 years in experience in Public Health, more specifically in the field of Operational of Health Districts, Primary Health Care, Health Surveys, Epidemiology, Referral Systems);
- Previous experience with project management;
- Experience in working with the government health system;
- Fluency in English;
- Good computer skills (Word, Excel, PowerPoint, MS Project, Email);
- Good personality, communication skills and ability to work with national and international personnel.

**Project Accountant / Secretary**

**Category: HIRED BY NTPC**

Responsibilities: responsible for Project Office: accounting & Secretariat

Timing of required services: Full time 48 months

Specific Functions:

- Project office accounting;
- Check PHO and DHO accounting, including monitor the cash advances and certify the liquidation reports;
- Secretariat function for Project Manager;
- Answering letters in English and Lao;
- Writing reports in Lao and English, including translation;
- Able to make simultaneous translation;

**Qualifications:**

- Degree in office management, business administration and/or accounting;
- Familiarity with medical terminology is an advantage;
- Fluency in oral and written Lao, English, good working knowledge of French will be an advantage;
- Computer literate Excel, Word; PowerPoint, email; especially in Lao typing skills
- Good personality, communication skills and ability to work in team with national and international staff;
- Willingness to live in a province.
Memorandum of Understanding

The responsibilities, authorities, rights and contributions of the different partners and the procedures for the implementation of the PHAP should be clearly specified and established. The Memorandum of Understanding (MOU) commits all the agreements and engagements to paper.

MOU Partners: the MOH, the NTPC, the Provincial Health Office of Khammouane

Content of the MOU should cover at least the following issues:

- Approval of the PHAP and the institutional framework for its implementation (the creation of the Project Steering Committee, Project Management Unit, Surveillance and Monitoring Taskforce, exchange of health data for monitoring purposes, etc.);
- Specify the mandate of the PMU;
- Staffing of the Public Health Institutions in the Project area;
- The procedures for financing of the different operational costs of the implementing public health institutions. (Reporting, and accounting responsibilities);
- Transparency of the DHO and DH financial systems (sources, taxes, revenue and expenses);
- Whether taxes should paid or are to be exonerated on civil works, equipment, vehicles, consumables, salaries and incentives;
- Procurement procedures of the NTPC (different procedures depending on the expected amount of the purchase or contract);
- Any restrictions on the use and maintenance of project funding, vehicles (private use??), equipment;
- Handing over procedures and dates of equipment and infrastructures;
- Activity Reporting obligations (what, by who, to whom, frequency);
- Whether the PMU can use office space of the PHO building;
- Visas for personnel of NGO or other implementing organisations
- Final evaluation procedures

For Development of MOU existing MOUs of NGOs and other organisations (Handicap International Belgium, Handicap International France, Health Unlimited, WHO, EU) could be studied.
Annex 5-15: References


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CHAPTER 6
ORGANIZATIONAL FRAMEWORK AND RESPONSIBILITIES

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6 ORGANIZATIONAL FRAMEWORK AND RESPONSIBILITIES

6.1 OVERALL ORGANISATION AND COORDINATION OF RESPONSIBILITIES

Nam Theun 2 (NT2) is the largest and most complex development project in which the Lao Government has been involved, in cooperation with the private sector. In response to the Projects resettlement component, GoL has established a specific resettlement organizational structure, which comprises:

- a Resettlement Committee (RC),
- a Resettlement Management Unit (RMU),
- seven District Resettlement (or Compensation) Working Groups (DRWGs/DCWG)
- and Village Resettlement and/or Development Committees (VRCs)

Collectively, these organizations form the GoL agencies responsible for implementing, in cooperation with the NTPC, the NT2 Projects Social Development Plan (SDP). On its side, the Nam Theun Power Company (NTPC) has established a Social and Resettlement Division, or Resettlement Office, to manage and implement NTPC’s responsibilities in the furtherance of the SDP.

While detailed descriptions of these institutions, including their responsibilities and staffing, are presented later in this chapter, the relationship and coordination between the GOL, which was first outlined in the CA of 3/10/02, has now been refined. A new overall organization chart for social and resettlement matters on the NT2 Project has been adopted, as shown in Figure 6-1. Within this overall framework, and through their parallel agencies, the GoL and the NTPC are jointly responsible for the planning, implementation and outcomes of the social and resettlement program of the NT2 Project. However, GoL or NTPC will take specific or primary responsibility for certain program components, or have equally shared responsibilities for other components, as summarised below

- NTPC has primary responsibility for infrastructure design and construction, with GoL support as required;
- GoL has primary responsibility for consultations with villagers, and for community development, with NTPC support as required;
- NTPC has primary responsibility for budget preparation, disbursements and acquittals;
- NTPC and GoL share joint responsibility for program scheduling and monitoring;
- GoL and NTPC share joint responsibility for livelihood development such as agriculture, livestock, forestry and fisheries; and
- NTPC and GoL share joint responsibility for the conduct of surveys etc, although NTPC takes the lead in data analysis.

The Concession Agreement, Schedule 4, Part 1, Clause 7 to 12 provides another level of detail of the respective GoL and NTPC responsibilities for detailed social and resettlement activities, as contemplated in 2002 (with some modification), and this matrix is attached as annex 6-1.

Mechanisms in place to ensure close coordination and cooperation between the GoL and NTPC include:
- the NTPC will become an official member of the RC, as co-Chairman;
- NTPC will act as procurement agent, and is the source of funding for the program;
- all plans and budgets are developed reviewed and approved by both the RO and the RMU;
- the RC has the right (duty?) to review and provide approval or no-objection to all plans; and
- the NTPC’s RO and the GoL’s RMU share the same office in Nakai.
Figure 6-1: Revised Overall Organization for the Social & Resettlement Components of the NT2 Project
6.2 GOI RESETTLEMENT ORGANIZATIONS

Until recently, no formal administrative structure existed in Lao PDR to deal with involuntary resettlement caused by large development projects. For a small number of cases, which involved involuntary resettlement, ad hoc institutional arrangements had been made at the project level for resettlement implementation. The 2003 draft National Policy on Involuntary Resettlement and Compensation designates the Science, Technology and Environment Agency (STEA) as the regulatory Agency charged with the responsibility for policy oversight. STEA is authorised, in this policy, to (a) disseminate information, (b) review, evaluate and approve or otherwise Resettlement Plans, (c) review monitoring reports; and (d) provide technical guidelines to Implementing Agencies.

STEA is also charged with assisting GoL to prepare technical guideline on the various aspects of resettlement plan preparation and implementation. While Implementing Agencies remain responsible, it will receive assistance from other ministries or agencies, and in the case of the NT2 Project these include the Ministry of Industry and Handicrafts, Ministry of Communication, Transport, Post and Construction, the Ministry of Information and Culture and the Ministry of Agriculture and Forestry, who will provide inputs for resettlement planning and delivery of economic rehabilitation assistance. However, STEA’s role in resettlement’s still relatively new, and was established after the NT2 projects organisation was established.

In the case of the Nam Theun 2 Project, the Government has established specific units (or committees) to work with the NTPC to plan and implement the Project, including:

- the Resettlement Committee;
- the Resettlement Management Unit; and
- the District Resettlement and Compensation Working Groups

These units or committees are staffed by current GoL staff who are seconded to work either full time or part time for the Nam Theun 2 Project, except in the case of GoL engaging hired staff during peak periods of activity.

6.2.1 The Resettlement Committee

To effectively organize and coordinate resettlement activities for the NT2 Project, the GoL, through the Committee for Planning and Cooperation (CPC), established the NT2 Resettlement Committee (RC) by Decree 12/CPC, signed by the Deputy Prime Minister on January 25, 1995. This Resettlement Committee was initially led by the Director of the Rural Development Committee at the State Planning Committee. Following establishment, the RC has been actively involved in all resettlement related activities, including:

- Preparation of Draft National Resettlement Policy, and preparation of NT2 Resettlement Policy (approved by State Planning Committee on February 5, 1998);
- Organization and direction of the RMU;
- Liaison within GoL at central, provincial and district levels;
- Liaison with NTPC;
- Consultations at National and Regional Levels.

After receiving the RAP of July 1998, the Government, after taking into account that the duties and responsibilities of the RC with regard to the implementation and monitoring of resettlement, recognised a need for the RC to be strengthened and to have a greater involvement of Provincial officials. On November 4, 1998, the Government issued decision No. 64/PMO (see Box 6.1) to appoint new members to the Committee and to clarify and expand its role and responsibilities. This new committee membership resulted in:

(a) All three affected Provinces being represented on the RC; and,
(b) The RC being chaired by the Governor of the Khammouane Province, in which most of the resettlement and related activities would occur.
Soon after its appointment, the new constituted RC organized and chaired the RAP National Public Consultation Workshop in January 1999, and has taken a coordinating role in the review and endorsement process of the RAP.

The RC is responsible to the Vice Prime Minister, who is the chairman of the national level Nam Theun 2 Project Steering Committee.

The joint World Bank and Asian Development Bank pre-appraisal mission of October 2004 has recommended that the NTPC become a member of the NT2 Resettlement Committee, in the position of co-Chairman.

**Box 6.1 (English Translation)**

Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity
---------------------
Prime Minister's Office
No. 64/PMO
Date: November 4, 1998

DECISION ON THE APPOINTMENT OF THE NAM THEUN 2 PROJECT RESETTLEMENT COMMITTEE

Based on the requirements of activities provided under the decision No. 023/SPC of February 5, 1998 on the policy for the resettlement and establishment of livelihoods for the population within the context of the Nam Theun 2 Project,

The Deputy Prime Minister, Standing Member of the Government decides:

**Article 1:** To appoint the committee in charge of the resettlement of the population within the Nam Theun 2 Project area, comprising of the following persons:

1. The Governor of Khammouane Province as Chairman.
2. The Deputy Governor of Savannakhet or/and Director of Industry & Handicraft Department, as members.
3. The Deputy Governor of Bolikhamsay Province, as member.
4. The representative of GOL’s NT2 Project Office (in charge of environmental & social issues) as member.
5. The head of the Resettlement Management Unit, as secretary.

**Article 2:** General mandate: Represent the Government in directing, guiding, managing the resettlement of the population affected by Nam Theun 2 Project in accordance with the Decision 023/SPC of February 5 1998 on the resettlement policy for the Nam Theun 2 Project.

**Article 3:** Tasks:

1. To determine work plan and policies related to resettlement within the context of the Nam Theun 2 Project.
2. To organize the Resettlement Management Unit (RMU) from the provincial level to the district and village level, and outline with a systematic structure, clear roles and responsibilities.
3. To determine the rights and responsibilities of all parties involved in the resettlement implementation relating to the Nam Theun 2 Project, and specifically the responsibilities of the Resettlement Management Unit (RMU) and the Resettlement Unit of the project developers (NTPC).
4. To set a budget for resettlement based on the funds provided from different sources and more particularly from the project developers and the World Bank in compliance with the above mentioned work plan and policy.
5. Outline procedure for using such budget in an efficient and transparent manner.
6. To solve disputes that may arise between the Resettlement Management Unit (RMU) and the Resettlement Unit of the project developers (NTPC).
   - To bring solutions to grievances of the population.
   - To apply procedures for mediation, consultation, education and guidance.
   - In the event that disputes may not be solved through mediation, the issue shall be submitted to higher authorities for consideration.
7. Monitor and control the resettlement activities carried out by different parties with the view of ensuring goods results, and provide reports.
Article 4: The Resettlement Committee will receive the following treatment:

1. Members of the Committee will remain civil servants assigned to their respective original positions and shall continue to receive normal treatment from their original agencies.
2. When performing actual activities, such as participating in meetings, supervising field works, members of the Committee shall receive per diems, travelling cost and other allowances from the Project.
3. Treatment of the Resettlement Management Unit shall be separately considered by the Committee in accordance to the budget plan.

Article 5.

The Resettlement Committee is entrusted to issue internal rules, allocates responsibilities among each member as appropriate with the view of achieving the committee's mandate and ensuring external coordination, and more specifically with the World Bank and other external organizations.

Article 6.

The hereby appointed Resettlement Committee shall account directly to the Government for resettlement within the context of the Nam Theun 2 Project.

Article 7.

This Decision is effective from the date of signing and replace the decision No. 12/SPC of January 25, 1995 on the appointment of the Nam Theun 2 Project Resettlement Committee.

Deputy Prime Minister,
Standing Member of the Government,
Bounyang VORACHIT

cc: Party Central Committee Office
    State Planning Committee
    Ministry of Industry & Handicraft
    Ministry of Agriculture & Forestry
    Science, Technology and Environment Organization
    Khammouane, Savannakhet, Bolikhamxay Provinces
    Nam Theun 2 Electricity Consortium (NTEC)

6.2.2 Roles and Functions of Resettlement Committee

The RC is responsible for ensuring that those aspects of the SDP that are GoL’s responsibility to implement are carried out on time and on budget. In addition, the RC has overall responsibility for all resettlement and compensation activities, even though many may be carried out by others, NTPC included, which will be made more practical by the inclusion of the NTPC in the RC.

The Concession Agreement, Schedule 4, Part 1, clause 4 specifies that the RC has the overall responsibility for directing, guiding, and managing the Resettlement Process, and its main roles and functions include:

- Preparing, or advising the RMU and RO in the preparation, of plans and policies relating to resettlement in order to ensure the achievement of the Resettlement Objectives;
- Coordinating with the GoL Nominated Representative in relation to the Resettlement Process;
- Coordination and liaison with the NTPC;
- Allocating roles and responsibilities for relevant agencies involved in the Resettlement Process, including the RMU, the DRWGs and the VRCs;
- Preparing and issuing the Resettlement Regulations and internal rules;
- Monitoring and supervising the implementation of the obligations of both the GoL and the NTPC with respect to the Resettlement Process, including providing no-objections or approvals to activities carried out by RMU, other GoL agencies and the company's RO (no-objection);
- Appointing an independent monitoring agency;

1 These roles and responsibilities are a paraphrase of those appearing in the CA, after some modifications have been made.
Facilitating transparency and accountability of management and activities undertaken under the RC’s supervision; and

Liaison with external organisations on resettlement issues relating to the project;

Reviewing and resolving issues arising among the various Government Agencies and the Company, including disputes which may arise between the RMU and RO, before it is deemed a dispute and thus resolution is required according to the Consultation and Dispute Procedure

Distributing entitlements to PAPs and ensuring the view of PAPs are heard and incorporated into Project design.

Setting an annual resettlement budget, with the participation of NTPC in compliance with the work plans and policies mentioned above; and

Providing guidelines for the allocation of the budget:

In addition, the RC has the right to review and approve all Resettlement Works (which include the budgets), either those in the regular (monthly, quarterly and annual) plans or ad hoc plans, prepared by the RMU or Company's RO, before they are undertaken.

The resettlement committee meets every 6 months to review the past 6 months activities, and the work plan and budget for the following 6 months. In between these bi-annual meetings, the chairman (the Provincial Governor of Khammoune) is the standing member and takes all decisions, and provides signatures, for all matters relating to or under the responsibility of the RC.

6.3 RESETTLEMENT MANAGEMENT UNIT

In January 1997, the RC issued an administrative notice defining the main responsibilities of the RMU, which were further elaborated on in the Concession Agreement (CA) between the NTPC and GoL.

6.3.1 Responsibilities of RMU

The responsibilities of RMU, under the leadership of the RC, and in close coordination with the RO, include the following (according to the CA of 2002, with some modification):

(i) Coordinating, in partnership with the RO, the planning and implementation of the Resettlement Process;

(ii) Work with the Companies RO in day-to-day management of the Resettlement Process in accordance with the general policies and specific directions of the RC;

(iii) Organising, coordinating and facilitating GOL authorities to participate in resettlement planning by carrying out socio-economic surveys of the affected people, consulting with affected villages, investigating potential resources and developing livelihood scenarios;

(iv) Carry out public consultations throughout the Resettlement Process to help identify needs and solutions to potential problems and generally keeping PAPs informed;

(v) Managing the designated GoL implementation budget for the Resettlement Process;

(vi) Obtaining and allocating resettlement budgets to DRWGs, and through them, to affected villages and households, or to other agencies (public or private) directly involved in resettlement implementation;

(vii) Providing guidance and training for DRWG staff and other GOL institutions

(viii) organizing community participation and skills training for PAP;

(ix) monitor the progress of implementation of the obligations of GOL and ensure their programs and completed within the agreed schedule;

(x) In collaboration with the DRWGs coordinate the civil works with the RO, organise technical training from various institutions for PAPs, organising them to develop their allocated farm plots and arranging the logistics for the physical relocation of the households;

(xi) Ensuring that the Lao Women’s Union (LWU) is able to participate in the Resettlement Process and to address gender issues and initiate income generating activities targeted to women;
(xii) Ensuring that the Lao National Front (LNFC) is able to participate in the Resettlement Process and to address ethnic minority issues; and
(xiii) Participating in the Grievance Procedure.

The RMU, together with the RO as appropriate, will coordinate the whole resettlement process, and manager of field resettlement activities which are actually undertaken by the DRWG/DCWGs. Obviously, the staff of the RMU will work in close partnership with both the RO and the DRWGs/DCWGs.
Figure 6-2: Detailed Organization of GoL for the Social and Resettlement Components of the NT2 Project

- Provincial Governor: Khammoune (Chairman)
- Deputy Prov Gov: Khammoune (Deputy Chair)
- Deputy Prov Gov: Bolikhamsai, member
- Deputy Prov Gov: Savannakhet, member
- NT2 Office: member
- Head/Deputy Head, RMU: Secretaries

Resettlement Committee

Resettlement Management Unit

Head: Deputy 1 and Deputy 2:

Livelihood SMS
- Agricultural Officer
- Forestry Officer
- Fisheries Officer
- Livestock Officer
- Irrigation

Social/Cultural Unit (SMSs)
- Health officer
- Ethnic Dev officer

Consultation & Disclosure Unit
- Consultation officer

Infrastructure SMS
- Engineer - Design: Construction
- Engineer - Construction

Public services
- Community Development
- Education
- Health

District Working Group: Nakai
- DWG Cabinet
- Finance

RCP and Census
- Village consultation
- Censustrata

PLC: Survey/agreement
- Lands registers
- Agreement register
- Others as req’d by NTPC

Livelihoods
- Forestry officers
- Agriculture officers
- Livestock officers
- Fisheries officers
- Irrigation officers

Name Katang/Nam Phu
- S-E survey and monitoring
- Livelihood compensation

DCWG: Khamkut
- DWG Cabinet
- Finance

RCP and Census
- Village consultation
- Relocation coordinator

PLC: Survey/agreement
- Lands registers
- Agreement register
- Others as req’d by NTPC

Public services
- Community Development
- Education
- Health

District Working Group: Gnommalath
- DWG Cabinet
- Finance

District Working Group: Mahaxai
- DWG Cabinet
- Finance

PLC: Survey/agreement
- Lands registers
- Agreement register
- Others as req’d by NTPC

District Working Group: Xebangfai
- DWG Cabinet
- Finance

XBF compensation
- Fisheries
- Agriculture/Livestock
- Irrigation
- Infrastructure

DCWG NongBok
- DWG Cabinet
- Finance

XBF Monitoring
- S-E survey and other studies
- Fishery monitoring

Legend:
XBF = Xe Bangfai
PLC = Project Land Compensation Scheme
RCP = Resettlement Compensation and Planning
SMS = Subject Matter Specialists
DWG = District Working Groups
6.3.2 Staffing and Organization of RMU

RMU staff will generally be experienced national and provincial level managers and professionals able to coordinate and advise on a range of key activities. They will also be required to report on the plans and progress of activities to the RMU cabinet and directly to the RC, as required. The RMU will be composed of a cabinet and eight technical and administrative units, as shown in Figure 6-2 and as described below. The positions are scheduled in Table 6-1.

(i) RMU Cabinet - Comprised of a Manager, and two deputy managers, with at least one being seconded from the LWU. The Cabinet is responsible for the coordination of activities and providing management assistance to the technical units and DRWG/DCWG as required. The Cabinet will be required to amalgamate the annual, and quarterly plans of each DRWG/DCWG into one plan and budget and present to the RC, through the RO. Similarly, they will work with NTPC to acquit budget expenditures on a monthly, quarterly and annual basis. They will also be responsible for an on-going review of policies relating to relocation, resettlement and compensation entitlements etc,

(ii) Infrastructure Development Unit - This Unit will contain two professional or technical staff to assist RO engineers. They will be responsible for:
- Assisting RO engineers in the concept design, and then drafting and BoQ estimation of houses, roads, electricity, irrigation and other infrastructure;
- Assisting RO in the contracting process and then in the supervision of the construction of houses, roads, electricity and irrigation and other infrastructure;

(iii) Livelihood Development and Training Unit - This Unit will comprise staff responsible for coordinating the Agricultural program on behalf of the provincial authorities. It will comprise an Agronomist, a Livestock Specialist, a Field Irrigation Engineer, a Fisheries Specialists, Foresters and a Training Coordinator. They will be Government staff from either Province or District, seconded to the RMU and based in Nakai. In coordination with the RO agricultural, forestry and fisheries experts and advisors, they will be responsible for:
- coordination of the field level activities that are implemented by the Agricultural Extension Workers (AEWs), Livestock Extension Workers (LEWs), Village Irrigation Assistants (VIAs), Fisheries Extension Workers (FEWs) and Village Forestry Agents (VFAs);
- facilitating the conduct of the Farmer Field Schools (FFSs) organised by the AEWs and LEWs;
- assisting in the procurement of inputs for the Agricultural & Livestock Development Programs;
- monitoring the progress of implementation and the rate of uptake of improved crop and livestock production practices and the extent of irrigated dry season cultivation.

(iv) Social Services Development Unit - This unit of two staff will comprise a Health Officer and an Ethnic Development Officer. They will be responsible for:
- Ensuring customary rituals are followed in relocation activities;
- Ensuring ethnic and cultural aspects are fully considered in resettlement and compensation planning and implementation;
- Monitoring and facilitating the resolution of any issues which may affect community cohesion;
- Managing the health program (the Health officer); and
- Assisting in education activities, as required.

(v) Consultation and Disclosure Unit - This unit will consist of 1 staff, the Consultation Program Manager, who will be responsible for:
- Organising and coordinating, with NTPC, in the conduct of training to prepare for villages consultations;
• Organising, and coordinating with NTPC in the preparation of consultation materials and facilities; and
• Organising and assisting DRWGs in the conduct of the village consultations.

(vi) Land Asset Registration and Titling Unit - This unit will work with NTPC Project Lands team, or their contractors (who will take the lead in surveys and registration) and be responsible for GoLs input and responsibilities in this program, mainly assets registration. On the plateau, this officer will coordinate with Provincial and District agencies responsible for land titling.

(vii) Monitoring and Evaluation Unit
2 This unit will have one staff concerned with Demographic and Socio-Economic databases, and they will be responsible for:
• Maintenance of the GoL database (in coordination with NTPC) of socio-economic data, registered populations, resettlement or compensation entitlements of PAPs, and completed resettlement and compensation delivery;
• Informing the finance unit with regard to compensation payments payable; and
• Providing information to internal and to the external monitoring organizations.

(viii) Administration and Finance Unit - This unit will have about 4 staff who will work closely with NTPC’s administration and finance officers, to ensure the effective and prudent operation and financing of all social and resettlement activities. It will also provide assistance and training to administration and finance staff in each District in the development of monthly and quarterly budget plans and acquittals, and the monitoring of expenditure on a daily and monthly basis.

Table 6-1: Scheduling of RMU Staff Positions up to COD.

<table>
<thead>
<tr>
<th>Section / Position</th>
<th>2005 (qtr)</th>
<th>2006 (qtr)</th>
<th>2007 (qtr)</th>
<th>2008 (qtr)</th>
<th>2009 (qtr)</th>
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<td>4</td>
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<td>Head</td>
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<td>Deputy 1</td>
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<td>Agriculture Officer</td>
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<tr>
<td>Forestry Coordinator</td>
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<tr>
<td>Fisheries Coordinator</td>
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<tr>
<td>Livestock Coordinator</td>
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<tr>
<td>Irrigation Coordinator (part time)</td>
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<tr>
<td>Health Coordinator</td>
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<tr>
<td>Ethnic/CD Coordinator</td>
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<tr>
<td>Consultations Manager</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Land/Assets Officer</td>
<td></td>
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</tr>
<tr>
<td>Monitoring/Evaluation officer</td>
<td></td>
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<tr>
<td>Database Officer</td>
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</tr>
<tr>
<td>Senior Administration Officer</td>
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<tr>
<td>Senior Finance Officer</td>
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<tr>
<td>Junior Admin Officer</td>
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<td></td>
</tr>
<tr>
<td>Junior Finance Officer</td>
<td></td>
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</tr>
</tbody>
</table>

2 While the Social and Cultural Development and the Compensation, Monitoring and Evaluation Units will have branches in each District, the RMU and the NTPC will maintain control over finances and databases.

November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1
6.3.3 Location of RMU

The RMU head office will be located in the Nakai District Centre, where it will share the same office as the NTPC's RO. From this Nakai office, the RMU will coordinate activities in all of the Districts of Nakai, Gnommalath, Mahaxai, Xe Bangfai, Nongbok and Xaibouly, and Khamkeut Districts.

6.3.4 RMU Activities to Date

The RMU has been in existence for six years (since 1997), and during this period it has been responsible for and involved in a wide range of key activities. Table 6-2 below gives an indication of the range of activities facilitated or managed by the RMU over the last four years.

Table 6-2: RC, RMU and DRWG/DCWG Key Activities since October 1999

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Parties</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary &amp; Extraordinary RC meeting to endorse Activities Report, Registration Booklet and selection of Ban Nong Boua as Pilot Village.</td>
<td>RC, RMU</td>
<td>March 2000</td>
<td>Sept' 2000</td>
</tr>
<tr>
<td>Governor of Khammouane Province was appointed as chairman of RC.</td>
<td>RC</td>
<td>December 2000</td>
<td></td>
</tr>
<tr>
<td>Census Booklet distribution to the households.</td>
<td>RMU, DRWG</td>
<td>October 2000</td>
<td></td>
</tr>
<tr>
<td>Ag extension to plateau villages- Farm equipment and seeds distribution and training to plateau villages.</td>
<td>DWG, RO</td>
<td>1999</td>
<td>On going</td>
</tr>
<tr>
<td>Health support to plateau villages mosquito net distribution, establishment of medicine revolving funds.</td>
<td>DWG, RO</td>
<td>2000</td>
<td>On going</td>
</tr>
<tr>
<td>Theun Douane and Nakai Neua Farm Evaluations.</td>
<td>RC, RMU, DRWG</td>
<td>October 2000</td>
<td></td>
</tr>
<tr>
<td>Study tours:</td>
<td>RC, RMU, DWG, VRC</td>
<td>2001 - 2004</td>
<td></td>
</tr>
<tr>
<td>&gt; villager study tour to Pakson agriculture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; staff study tour to Luang Prabang sloping land agriculture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; staff study to Houay Ho Resettlement program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural training for the youth from plateau villages at Nakai Neua Farm.</td>
<td>RO, DWG, VRC</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>Facilitating the 2001 Forestry survey and inventory.</td>
<td>RO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitating the Soil survey of the Pilot Village.</td>
<td>RO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Consultation on Pilot village layout (all people of Ban Nong Boua + 15 people from 3 neighbouring villages)</td>
<td>RMU, RO, DWG, VRC</td>
<td>April 2001</td>
<td></td>
</tr>
<tr>
<td>Health check (baseline) of reservoir households.</td>
<td>DRWG, RO, NGO</td>
<td>January 2001</td>
<td>On going</td>
</tr>
<tr>
<td>Pilot village site clearing, fencing.</td>
<td>RO, VRC</td>
<td>January 2001</td>
<td>On going</td>
</tr>
<tr>
<td>Pilot village: Obtain Provisional land certificate from Provincial government.</td>
<td>RMU, DRWG</td>
<td>2001</td>
<td>On going</td>
</tr>
<tr>
<td>Community Forest; various consultations and meetings at village, district and province level.</td>
<td>RMU, RO, DRWG, VRC</td>
<td>February 2001</td>
<td>Sept' 2001</td>
</tr>
<tr>
<td>Pilot Village: Rice bank establishment in Pilot Village</td>
<td>DRWG, RO, VRC</td>
<td>2001</td>
<td>On going</td>
</tr>
<tr>
<td>School support: Ban Sop Hia and Ban Sop Phene (equipment and teacher support)</td>
<td>RO, DRWG</td>
<td>2001</td>
<td>On going</td>
</tr>
<tr>
<td>Survey's along Xe Bang Fai survey.</td>
<td>RMU, DRWG, RO</td>
<td>August 2001</td>
<td></td>
</tr>
<tr>
<td>Ethnic survey on Nakai Plateau</td>
<td>RMU, DRWG, RO</td>
<td>January 2002</td>
<td>On going</td>
</tr>
<tr>
<td>Ethnic survey along the XBF</td>
<td>RMU, DRWG, RO</td>
<td>mid 03 - early 04</td>
<td></td>
</tr>
<tr>
<td>Population census on the plateau</td>
<td>RMU, DRWG, RO</td>
<td>May-July 2003</td>
<td></td>
</tr>
<tr>
<td>Official handover oh houses to Pilot villagers</td>
<td>RMU, DRWG</td>
<td>March 2004</td>
<td></td>
</tr>
<tr>
<td>2nd round of consultation on plateau, and along Xe Bangfai</td>
<td>RMU, DRWG, RO</td>
<td>May - August 2004</td>
<td></td>
</tr>
</tbody>
</table>

6.4 DISTRICT RESETTLEMENT (OR COMPENSATION) WORKING GROUPS

DRWGs have been established in three Districts: Nakai, Khamkeut and Gnommalath Districts. In the other four Districts - Mahaxai, Xe Bangfai, Nongbok, Xaibouly - DRWGs were originally formed, but they have name been re-designated as DCWGs, as the use of the term 'resettlement' in these Districts was confusing local villagers.
The DRWG/DCWGs are responsible for implementing, in cooperation with villagers, and under the technical direction of the RMU and RO, the relocation, rehabilitation, compensation and development activities specific to their Districts, as summarized in Table 6-3 below.

### Table 6-3: Main Activities of Respective District Resettlement/Compensation Working Groups

<table>
<thead>
<tr>
<th>Main Activities of DRWG, DCWGs</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undertake consultations with affected villages and individuals regarding the resettlement entitlements;</td>
<td>All</td>
</tr>
<tr>
<td>Organizing and facilitating the process of identifying resettlement sites, designing village layout, as well as plot allocation and distribution;</td>
<td>Nakai, Khamkeut</td>
</tr>
<tr>
<td>Facilitating relocation, and providing relocation and transitional assistance</td>
<td>Nakai and Khamkeut</td>
</tr>
<tr>
<td>Implementing the livelihood program for the villages, and assisting in the related training activities.</td>
<td>Nakai and Khamkeut</td>
</tr>
<tr>
<td>Assistance in Project land PAP asset surveys, socio-economic surveys and PLP asset registration</td>
<td>All Districts, except Nongbok</td>
</tr>
<tr>
<td>Assistance in Planning and implementing the Project Lands compensation activities</td>
<td>All Districts, except NongBok</td>
</tr>
<tr>
<td>Xe Bangfai surveys (socio-economic, fisheries, livelihoods).</td>
<td>Mahaxai, Xe Bangfai, Nongbok, Xaibouly</td>
</tr>
<tr>
<td>Xe Bangfai consultations and disclosure</td>
<td>Mahaxai, Xe Bangfai, Nongbok, Xaibouly</td>
</tr>
<tr>
<td>Xe Bangfai compensation and development</td>
<td>Mahaxai, Xe Bangfai, Nongbok, Xaibouly</td>
</tr>
<tr>
<td>Reporting on the progress of all activities to the RMU.</td>
<td>All</td>
</tr>
</tbody>
</table>

The District Resettlement (and Compensation) Working Groups will be directly responsible, under the direction of the RMU, for implementing the relocation and rehabilitation work in their district, including:

- Carrying out consultations on resettlement and compensation entitlements among PAPs;
- Organising and facilitating the process of identifying Resettlement Sites, designing village layout and plot allocation and distribution;
- Organising the implementation of the required livelihood programs for the villages;
- Arranging logistics for the relocation and providing relocation and transitional assistance;
- Providing progress reports to the RMU and the district governments;
- Participating in the Grievance Procedure; and
- Supervising the VRCs.

The staff of the DRWG/DCWGs are drawn from local district staffing allocation, seconded to work, generally full time, on the NT2 Project activities. However, during peak staff requirements the GOL will have to recruit a large number of extra 'hired' staff who will in most cases be recruited from recent University graduates. The type and number of staff depends on the types and scale of resettlement tasks in that particular district. Table 6-6 indicates the type, number and scheduling of staff required in Nakai District, and Table 6-4 the type, number and scheduling of staff in other Districts.

The main requirement for increased staff at the District level will be on the Nakai plateau. where 15 new villages and the livelihoods of 1,100 families will be have to developed over a period of at least 5 years. A staff needs assessment undertaken in August 2003 developed the following general guidelines for Government extension staff requirement on the Nakai plateau:

- For agriculture/crops extension: 1 staff per village (or 50 families, approximately)
- For Community Development: 1 staff per village (or 50 families, approximately)
- For irrigation: 1 staff per 100 families
- For forestry: 8 staff (survey: 4, logging (same 4), sawmill: 2, nursery: 4)

These staff will be assigned to specific villages (for agriculture and CD, for example) or Units (infrastructure, forestry, for example) and will supported by the RMU officers and coordinators, and especially by the TA employed by the NTPC. As a general rule, the offices of the various DRWG/DCWGs...
will be in the normal offices of the administration and line agencies involved. However, the NTPC will provide funds for those offices that will need to be extended and/or renovated to accommodate increased staff (especially on Nakai plateau) and increased activity. As of June 2003, the designated staff of the GoL resettlement organizations total 12 full time and up to 25 part-time staff, as shown in Table 6-7.

Table 6-4: Scheduling of Nakai GoL (DWG) Staff in relation to village relocation, development.

<table>
<thead>
<tr>
<th>Section / Position</th>
<th>2005 (qtr)</th>
<th>2006 (qtr)</th>
<th>2007 (qtr)</th>
<th>2008 (qtr)</th>
<th>2009 (qtr)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRWG cabinet (3)</td>
<td></td>
<td></td>
<td>Financial Close</td>
<td></td>
<td>COD</td>
<td></td>
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<tr>
<td>Admin and Finance(4)</td>
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<tr>
<td>DTPC - Infrastructure</td>
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<tr>
<td>Snr Village Construction Off.</td>
<td></td>
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<td></td>
<td></td>
<td>Talang</td>
</tr>
<tr>
<td>Snr Village Construction Off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sopphen</td>
</tr>
<tr>
<td>Snr Village Construction Off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sopma</td>
</tr>
<tr>
<td>Village Construction Off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SopHia</td>
</tr>
<tr>
<td>Village Construction Off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N. Bouakham</td>
</tr>
<tr>
<td>Village Construction Off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nakai Dtai</td>
</tr>
<tr>
<td>Village Construction Off.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Nakai Neua</td>
</tr>
<tr>
<td>Village Construction Off.</td>
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<td></td>
<td>Bouama</td>
</tr>
<tr>
<td>Village Construction Off.</td>
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<td></td>
<td>Phonsavang</td>
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<tr>
<td>Village Construction Off.</td>
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<td>SopOn</td>
</tr>
<tr>
<td>Village Construction Off.</td>
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<td></td>
<td></td>
<td>Done</td>
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<tr>
<td>Village Construction Off.</td>
<td></td>
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<td></td>
<td></td>
<td>Khon Kaen</td>
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<tr>
<td>DAFO: Agriculture and livestock</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td>Talang</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td>Sopphen</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td>Sopma</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td>SopHia</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td>N. Bouakham</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td>Nakai Dtai</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td>Nakai Neua</td>
</tr>
<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td></td>
<td>Bouama</td>
</tr>
<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td>Phonsavang</td>
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<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td></td>
<td>SopOn</td>
</tr>
<tr>
<td>Village Agric/Livestock Off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Done</td>
</tr>
<tr>
<td>Village Agric/Livestock Off.</td>
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<td></td>
<td>Khon Kaen</td>
</tr>
<tr>
<td>Community Development</td>
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<tr>
<td>CD Officer</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Talang</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Sopphen</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sopma</td>
</tr>
<tr>
<td>CD Officer</td>
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<td></td>
<td>SopHia</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
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<td></td>
<td>N. Bouakham</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Nakai Dtai</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
<td></td>
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<td>Nakai Neua</td>
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<tr>
<td>CD Officer</td>
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<td>Bouama</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
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<td></td>
<td>Phonsavang</td>
</tr>
<tr>
<td>CD Officer</td>
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<td>SopOn</td>
</tr>
<tr>
<td>CD Officer</td>
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<td></td>
<td></td>
<td>Done</td>
</tr>
<tr>
<td>CD Officer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Khon Kaen</td>
</tr>
<tr>
<td>DAF0: Forestry</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Senior Lao TA x 3</td>
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</tr>
<tr>
<td>Junior Lao TA x 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Table 6-5: Indicative positions and Scheduling of downstream District GoL staff.

<table>
<thead>
<tr>
<th>Section / Position</th>
<th>2005 (qtr)</th>
<th>2006 (qtr)</th>
<th>2007 (qtr)</th>
<th>2008 (qtr)</th>
<th>2009 (qtr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Gnomarlart DWG</td>
<td>Cabinet 2</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Admin/Finance: senior 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Admin/Finance: junior 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Census and database 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PL Livelihoods compensation 3</td>
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</tr>
<tr>
<td></td>
<td>PL Infrastructure compensation 2</td>
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<tr>
<td></td>
<td>(Nam Phit/Katang)</td>
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<tr>
<td></td>
<td>Monitoring 2</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Livelihood/fisheries compensation 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahaxai DWG</td>
<td>Cabinet 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Admin/Finance: senior 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Admin/Finance: junior 1</td>
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Table 6-6: Indicative person-month requirement (of NTPC, RMU and District Resettlement/Compensation Working Groups) from the start of 2005 to COD (late 2009)

<table>
<thead>
<tr>
<th>NTPCs RO</th>
<th>Position</th>
<th>VTE</th>
<th>Nakai</th>
<th>RMU*</th>
<th>Nakai DRWG*</th>
<th>Khamkerd DRWG*</th>
<th>Gnomarlart DRWG*</th>
<th>Mahaxai DCWG*</th>
<th>XeBangfai DCWG*</th>
<th>Nongbok DCWG*</th>
<th>Xaibouly DCWG*</th>
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<td>111</td>
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<td>57</td>
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<td>69</td>
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<td>210</td>
<td>168</td>
<td>168</td>
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</tbody>
</table>

indicative, total person months input required (from start 2005 to COD)

|                      |                    | 321 | 3,312 | 990 | 1,955 | 405 | 489 | 630 | 345 | 306 | 306 |

Chapter 6: Organizational Framework and Responsibilities

November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1
### Table 6-7: GoL Staff Allocation to NT2 Social and Resettlement Activities (as of June 2003)

<table>
<thead>
<tr>
<th>Location, and name</th>
<th>Normal position</th>
<th>Position in NT2</th>
<th>tenure</th>
<th>ethnicity</th>
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<tr>
<td><strong>Khammoune Province</strong></td>
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<tr>
<td>1</td>
<td>Mr Le Kakaanya</td>
<td>Province Governor</td>
<td>President RC</td>
<td>Kaleung</td>
</tr>
<tr>
<td>2</td>
<td>Mr Thaivaphone Singhthong</td>
<td>Deputy of Province Governor</td>
<td>Deputy of President RC</td>
<td>PT Phouthai</td>
</tr>
<tr>
<td><strong>Bolikhamsai Province</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Mr Khamphan Souldhidsampha</td>
<td>Deputy of Province Governor</td>
<td>Member RC</td>
<td>Meoi</td>
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<tr>
<td><strong>Savannakhet Province</strong></td>
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</tr>
<tr>
<td>1</td>
<td>Mr Soukkaseum Phothisan</td>
<td>Deputy of Province Governor</td>
<td>Member RC</td>
<td>Kaleung</td>
</tr>
<tr>
<td></td>
<td>Inthanalongsin</td>
<td>Secretary</td>
<td>PT</td>
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<tr>
<td><strong>RMU</strong></td>
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<tr>
<td>1</td>
<td>Mr Hoy Phomvisouk</td>
<td>NT2</td>
<td>Head of RMU</td>
<td>PT Thai deang</td>
</tr>
<tr>
<td>2</td>
<td>Mr Maniveng Phetoudom</td>
<td>Director of LIL project</td>
<td>Deputy of RMU</td>
<td>PT Phouthai</td>
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<tr>
<td>3</td>
<td>Ms Keoosala Soulyadeth</td>
<td>Deputy head of Prov LWU</td>
<td>Deputy, Women’s affairs</td>
<td>PT Kaleung</td>
</tr>
<tr>
<td>4</td>
<td>Mr Keonouam</td>
<td>Finance Prov Department</td>
<td>Land officer</td>
<td>PT Phouthai</td>
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<tr>
<td>5</td>
<td>Mr Vanphim Phommalin</td>
<td>Finance Prov Department</td>
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<td>PT Phouan</td>
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<td>Mr Thonekeo</td>
<td>Dep. Head of District Cabinet</td>
<td>Head of RDWG</td>
<td>PT Thai deang</td>
</tr>
<tr>
<td>2</td>
<td>Mr Sengkeo</td>
<td>Head: Construction off..</td>
<td>Deputy head of RDWG</td>
<td>PT Phouthai</td>
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<tr>
<td>3</td>
<td>Mr Khamming Boualaphan</td>
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<td>Coordinator</td>
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<tr>
<td>4</td>
<td>Mr Khameua Soulyanpom</td>
<td>Head, Justice/Court Office</td>
<td>Pilot Village manager</td>
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<tr>
<td>5</td>
<td>Mr Inthasone</td>
<td>Head, DAFO</td>
<td>Member</td>
<td>PT Phouan</td>
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<tr>
<td>6</td>
<td>Mr Siansouang</td>
<td>Head of welfare</td>
<td>Member</td>
<td>PT Thai deang</td>
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<tr>
<td>7</td>
<td>Mr Bounthiang</td>
<td>Head of Youth Union</td>
<td>Member</td>
<td>PT Phouthai</td>
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<tr>
<td>8</td>
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<td>Mr Bounmy Phomouvong</td>
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<td>Member</td>
<td>PT Phouthai</td>
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<td>10</td>
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<td>Member</td>
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<td>Deputy of DWG</td>
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<tr>
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<tr>
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<td>6</td>
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<td>Deputy head of Health</td>
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<td>7</td>
<td>Mr Somphao</td>
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<td>Member</td>
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<td>Deputy, RDWG</td>
<td>PT</td>
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<td>Member</td>
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</table>

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3 Since 2003 GOL officers in all these positions may have changed.
6.5 NTPC's Resettlement Organization

NTPC is responsible for preparing the SDP jointly with the resettlement organizations from GoL. The NTPC has established a Resettlement Office (RO) to be specifically responsible for all social and resettlement activities of the NTPC, in close cooperation with the GoLs RC and RMU.

The NTPC's Resettlement Office will be responsible for:

- Providing sufficient human resources to ensure the objectives and targets of the SDP are meet, by the engagement of national and international experts
- Providing funding for the implementation of the resettlement activities consistent with the quantity and quality of the agreed entitlements and measures;
- Providing prompt and adequate compensation to the Resettlers and the other PAPs in accordance with the NT2 Resettlement Policy, with such compensation being based on the principle of actual full replacement or the payment of full replacement cost;
- Providing for any other costs associated with mitigating the social effects of the Project on any PAPs, in accordance with this Part;
- Ensuring appropriate consultation and participation methods are used, utilising local knowledge in developing production systems that suit the Resettlers' needs and environment and which avoid dependency on the Project or any Government Authority;
- Providing housing and community buildings at resettlement sites, reasonable access to all weather roads provided where practical, plus water and electricity connections to all resettlers' houses.

6.5.1 Location of the NTPC's Resettlement Office

The NTPC's Resettlement Office will have offices in the following locations:

- Vientiane;
- Nakai, the main field office;
- Gnommarlart, the field office for project Lands activities;
- Thakhek, mainly logistical and coordination support and
- Khamkerd, to support (for 2 years) the Project Lands work and the one resettlement village of Ban Nam Pan)

6.5.2 Staffing of the NTPC's Resettlement Office

The RO will have staff nominally allocated to the following Units:

- Livelihoods (planning and development) Unit;
- Infrastructure (design, planning and construction) Unit;
- Administration and Finance Unit;
- Project Lands and Xe Bangfai (studies and compensation) Unit;
- Consultation, Disclosure and Ethnic Unit; and
- Monitoring, Mapping, Database and Document Unit.

The relative organisation of these Units is presented in Figure 6-3, while the scheduling of engagement of each staff position is presented in Table 6-4 and Table 6-5. Staffing of the NTPC RO is developed over three general phase's, (i) the development and preparation phase, up until Financial close, (ii) the construction phase, with a focus on the plateau and project lands, from FC to COD; and (iii) the Post COD phase, with a focus on consolidation of plateau livelihoods, and the Xe Bangfai. Table 6-4 and Table 6-5 show only the second phase as this is the phase requiring the most intensive TA input. ToRs for key staff are provided in Annex 6-4. A key responsibility of NTPC TA will be to provide training of local GoL staff in all aspects of the social and resettlement program.
Figure 6-3: Indicative Organization of NTPCs Resettlement Office (as of July 2004)
### Table 6-8: Indicative Scheduling of NTPCs RO Staff and TA - Vientiane

<table>
<thead>
<tr>
<th>Position/Section</th>
<th>2005 (qtr)</th>
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<th>2007 (qtr)</th>
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<tr>
<td><strong>Vientiane Resettlement Office</strong></td>
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<td>Financial Close</td>
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<tr>
<td>1 Manager (Int'l)</td>
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<td>Deputy Manager (Int'l)</td>
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<td>2 Admin &amp; Finance</td>
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<td>Administration and Program Officer</td>
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<td>Finance Officer</td>
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<td>Procurement Officer</td>
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<td>Finance/Contracts Officer</td>
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<td>3 Support</td>
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<tr>
<td>Scheduling/Monitoring and Database Officer</td>
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<td>GIS &amp; Mapping (Contract)</td>
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<td>4 Social Services and CD</td>
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<td>Community Development/Ethnic officer</td>
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<td>5 Infrastructure planning/design/contracts</td>
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<td>Rural Infrastructure Engineer (Int'l)</td>
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<td>Senior Lao TA: Rural Engineer</td>
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<td>Senior Lao TA: Irrigation Engineer</td>
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<td>6 Project Lands</td>
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<td>Manager (Int'l)</td>
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<td>GIS and database</td>
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### Table 6-9: Indicative Scheduling of NTPCs Nakai Management, Admin and Infrastructure Staff

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<th>Position/Section</th>
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<td>1 Mgt, Admin and Finance</td>
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<td>Field Manager: Int'l (senior)</td>
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<td>Field Manager: Lao</td>
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<tr>
<td>Scheduling/Monitoring, Database Officer</td>
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<td>Training Coordinator</td>
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<td>Admin/Finance Officer</td>
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<td>Admin/Finance Assistant</td>
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<td>Logistics assistance (Drivers): 2</td>
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<td>2 Infrastructure</td>
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<td>Rural Infrastructure Engineer (Int'l)</td>
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<td>Senior Lao TA: Road Construction</td>
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<td>Senior Lao TA: Electrical Installation</td>
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<td>Senior Lao TA: House/Building Construction</td>
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<td>Senior Lao TA: Community Organizer</td>
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<td>Senior Lao TA: Water Supply Installation</td>
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<td>Junior Lao TA: Housed/Building Construction</td>
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<td>Junior Lao TA: Road Construction</td>
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<td>Junior Lao TA: Electrical Installation</td>
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<td>Junior Lao TA: Water Supply Installation</td>
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<td>Note: see next table (6-12) for irrigation construction</td>
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<td>Admin/Finance Officer</td>
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<td>Logistics assistance (Drivers): 5</td>
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Table 6-10: Indicative Scheduling of NTPCs Nakai RO Staff - Livelihoods

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<th>Section / Position</th>
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<th>2008 (qtr)</th>
<th>2009 (qtr)</th>
<th>Location</th>
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<tr>
<td>3 Community Consultation, Ethnic Development</td>
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<tr>
<td>Community/Ethnic Development TA (Int'l)</td>
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<td>Nakai</td>
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<tr>
<td>Lao senior TA: CD, women</td>
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<td>Nakai</td>
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<td>Lao senior TA: CD, men</td>
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<td>Lao senior TA: Gender specialist</td>
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<td>Nakai</td>
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<td>Lao senior TA: Socio economic monitoring</td>
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<td>Nakai</td>
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<tr>
<td>4 Agriculture and Livestock</td>
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<tr>
<td>Agriculture and Livestock Extension &amp; FLUPAM TA (Int'l)</td>
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<td>Nakai Office</td>
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<tr>
<td>Senior Lao TA: Ag/Liv Manager</td>
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<td>Nakai Office</td>
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<td>Senior Lao TA: Ag/Liv App/Res</td>
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<td>Nong Boua and Bouama</td>
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<td>Seed Production, Processing, Storage</td>
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<td>Veterinary and Supplies Storeperson</td>
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<td>Admin and Finance (Drivers): 5</td>
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<td>Senior Village Agric &amp; Livestock TA</td>
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<td>Senior Village Agric &amp; Livestock TA</td>
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<td>Senior Village Agric &amp; Livestock TA</td>
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<td>5 Irrigation</td>
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<tr>
<td>Irrigation Engineer (Junior, Int'l)</td>
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<td>Senior Lao TA: Irrigation Construction</td>
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<td>Nam Pan</td>
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<tr>
<td>Senior Lao TA: Irrigation Construction</td>
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<td>NBo, Boua, Phonsavang</td>
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<tr>
<td>Senior Lao TA: Irrigation Construction</td>
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<td>Other villages</td>
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<td>6 Forestry</td>
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<td>Forestry Specialist (Int'l)</td>
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<td>Lao TA: Forestry Program Manager</td>
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<td>Lao TA: Forestry Management</td>
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<td>Lao TA: Forestry Business</td>
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<td>Lao Admin/Finance</td>
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<td>7 Fisheries (reservoir only)</td>
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<td>Finance Specialist (Int'l)</td>
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<td>Lao: Administrator and Data Base</td>
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<tr>
<td>Lao: Fish Catch Monitoring/ Comm Liaison</td>
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<td>Lao: Fish Catch Monitoring/ Ecology</td>
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<tr>
<td>Lao: Engineer</td>
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<td>Lao: Fish Taxonomist / Ecologist</td>
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</table>

It should be many of the sector activity programs may be packaged and contracted to ngos, consulting firms or other institutions. Thus, the staffing shown in tables 6-10 and 6-11 would not then be NTPC/RO staff as such, but staff of these contracted institutions. Programs which may be contracted out include;:

- agriculture and livestock program and community development program;
- Forestry program;
- Fisheries program;
- (portions of) the Health program;
- the Xe bangfai program.
6.5.3 Responsibilities of NTPC Resettlement Office

The RO will be concerned with all aspects related to resettlement, and livelihood, social and community Development. However, for some aspects, it will take the lead role. For example, in the delivery of village infrastructure such as roads, water and electricity distribution systems, housing and schools. These are considered to be on the critical path schedule, in that they must all be finalised, and villagers moved and settled in, before the subsequent filling of the reservoir can proceed. The RO will also be primarily responsible for most of the budgetary administration of the NT2 project, due both to its responsibility for those tasks allocated to NTPC primary or sole responsibility, and as the procurement agency for NTSEP equity funds the NT2 project. Close and daily liaison and cooperation between the RO and the RMU have been, and will continue to be a feature of the social and resettlement activities in the NT2 Project, as both the GoL and the Project developers have a clear goal to ensure all social and resettlement issues are dealt with professionally and fairly, and in a timely and sustainable manner.

The Concession Agreement, Schedule 4 Part 1 states that, under the direction of the RC, the RO will have the following responsibilities:

- Monitoring the implementation of the NPTC obligations under the Schedule and ensuring that they are implemented;
- Providing quarterly reports to the RC in the format required on status of resettlement activities being carried out;
- Co-ordinating closely with the RMU in the planning and implementation of the Resettlement Process;
- Liaising and cooperating in good faith with the Government Authorities responsible for resettlement including the RMU at the working level;
Chapter 6: Organizational Framework and Responsibilities

- Seeking the RC’s approval/no-objection for all activities the RO proposes to undertake prior to undertaking such activities by submitting plans to the RC;
- Complying with all reasonable guidelines, policies and directions issued by the RC from time to time in accordance with the NT2 Resettlement Policy and within the funding obligations of the CA in relation to the Resettlement Process.

More recent planning has more clearly defined the role of the NTPC’s RO, and its main responsibilities are now understood in more detail, and include the following tasks:

(i) **Finalization of SDP (pre-FC):** This is a major task of the RO pre-FC, requiring selection and management of external consultants and experts, coordination between the various disciplines, and integrating lessons learned from pilot field activities into updated versions of the SDP.

(ii) **Leading or contributing to in discussions with World Bank Safeguard Experts (pre-FC):**

(iii) **Budget Preparation, Disbursements, Acquittals:** A significant amount of the resettlement budget in the CA is under the primary responsibility of the NTPC. In addition, those funds from the proposed WB loan (NTSEP) for GoL equity will also be managed by NTPC through its role as procurement agent for NTSEP. Thus, the RO will be administratively responsible for the financial management of most of the SDP budget, including many activities which may be assigned to the RMU as primarily responsibility.

Together with the RMU and relevant DRWG/DCWG, quarterly activity plans, and then quarterly and monthly budgets plans will be developed for approval by both the NTPC CEO and the RC Chairman. Annual Plans and Budgets will have to be approved by the full RC. The RO will provide training to RMU and DRWG/DCWG staff on disbursement and accounting procedures, so that accounts will be acquitted to the RO on a monthly basis. Appropriate procurement policies and procedures (consistent with WB procedures) will be developed and monitored by the RO.

(iv) **Staffing and Training:** The RO will be responsible for providing qualified and capable staff to effect and assist in the resettlement program. The drafting of job descriptions, the selection and engagement of staff and TA, the monitoring of staff performance, and taking appropriate action in cases of under or non performance will be crucial tasks. The RO will ensure that a focus of its staff and TA is to work closely with, and providing guidance and assistance to, GoL counterparts. A detailed description of the ToRs for all positions within the RO is shown in Annex 6-4.

(v) **Scheduling and monitoring:** The RO will be responsible for maintaining and updating the social and resettlement program schedule. The schedule will be maintained and updated in both Lao and English, and distributed each month (or quarter) to the Unit managers). This schedule, showing both the progress of past activities, ongoing activities and plan for future activies, will also be a tool for monitoring project progress.

(vi) **Database Management:** The RO will develop and maintain essential databases relating to:

- Population census of the plateau resettlement population;
- The socio-economic status and development of the plateau PAP;
- Socio-economic and other databases related to the Xe Bangfai villages and compensation program;
- Project Lands databases, which will include land and assets database and registries, PAP socio-economic database and compensation agreement database.

(vii) **Mapping and GIS:** The RO will be responsible for the following activities:

- Base topographic maps of various scales and type;
- Base maps with project features, resettlement villages etc, superimposed on topographic maps;
- Other thematic and explanatory maps linked to databases.

(viii) **Plateau resettlement - village layout design:** NTPC will manage the topographic survey programs, leading to designs of potential village layouts to be discussed with villages and, following consensus, the finalisation of layouts.
Plateau resettlement - village infrastructure design: NTPC will manage the planning and design of village domestic water supply, electricity, roads and public buildings such as schools, nursery, community centre and office, clinics, meeting hall, etc.,

Irrigation survey and design: Using the same topographic survey from (viii) above, the RO will develop conceptual designs and costs for resettlement village agricultural are irrigation systems. Following consensus on concept, detailed designs and BoQ/costs will be developed, most likely by contracts to irrigation design firms.

Plateau resettlement - village infrastructure construction: NTPC's RO will manage the tendering, contracting and supervision of house construction, road and electricity construction, public buildings construction (schools, clinics, nurseries, village meeting hall etc.) and village water supply construction.

Plateau resettlement - irrigation construction: NTPC's RO will manage the tendering, contracting and supervision of the construction of irrigation systems for resettlement villages.

Agricultural and Livestock Development: NTPC's TA will support the testing and introduction of diversified irrigated upland cropping, as well as paddy rice production, for the resettled households, through the provision of agricultural inputs and enhanced extension delivery mechanisms during the initial resettlement period.

Fisheries Program Development: NTPC's TA will provide TA support to the planning and progressive implementation of the reservoir fisheries program.

Forestry Program Development: NTPC's TA will support the conduct of resource surveys, the establishment and strengthening of Nakai Plateau VFA and the provision of training, provide assistance in forest surveys and logging, and processing and especially in the development of management expertise in the NPVFA.

Project Lands Baseline Study:
- NTPC will be responsible for this component, and provide support and TA to;
  - Remote Sensing data acquisition and analysis;
  - Socio-economic surveys (by engagement of a contractor);
  - Land parcel and Assets registration (by engagement of a contractor);
  - Compensation agreements (with the GoL); and
  - Compensation implementation (with the GoL).

Xe Bangfai
- NTPC will be primarily responsible for this component, and provide support and TA to the GoL to conduct;
  - Village socio-economic Baseline and Monitoring Surveys;
  - Fisheries Baseline and Monitoring Studies;
  - Special studies (riverside gardens, domestic water sources, riparian assets etc);
  - Public Consultation and Disclosure; and
  - Implementation of Mitigation and Compensation.

Consultations:
- NTPC's RON will assist the GOL in all aspects of the Public Consultation and Disclosure program.
6.6 VILLAGE ORGANIZATIONS

6.6.1 Village Resettlement and Development Committees

Villages already have administration and development committees, and these will continue to be strengthened to ensure that villages can fully participate in decision making, and then development of their ownership of activities related to the NT2 project. In those Nakai plateau villages where relocation is required, villages have already appointed their own VRC, which is generally made up of the five main members of the village administration (see Annex 6-6). These five members are elected every two years, and comprise:

- Village chief;
- Deputy Village Chief, in charge of economic development;
- The LWU, which traditionally plays a role in promoting social and economy development of women;
- The Lao Youth Union (LYO); and
- The Lao National Front for Construction (LNFC) which includes the village elders.

Thus, the VRCs, later to become the Village Development Committees (VDCs) are basically the current village administration, which are elected every 2 years, and their main tasks will be to prepare for, and then effect, resettlement and compensation.

These VRCs have and will continue to receive special training in regard to the various functions they will be required to undertake. Being directly responsible to the DRWGs/DCWGs, some of the typical responsibilities of the VRC/VDCs include:

- Representing the interests of the village;
- Public consultation with their village in relation to the Resettlement Process;
- Coordinating with mass organisations at village level in relation to the Resettlement Process;
- Developing Village Development Plans (VDPs) for their village;
- Monitoring and evaluating the Resettlement Process in their village;
- Organising villagers in implementing relocation and agricultural development (including selection of village sites); and
- Participating in the Grievance Procedure.

All resettlement villages will need to make joint decisions about the management of community resources in the resettlement area, as the village livelihoods will be based on the utilisation of an unusually large number of shared or community resources. This will require new community groups, structures and institutions to be established, developed and strengthened. These management systems will be required at two levels. First, at the village community level, including committees for: village resettlement, village forestry, village fisheries and reservoir management, irrigation water user, and other functions such as production or marketing support. Second, at the level of the entire resettlement area for inter-community decisions mainly on reservoir management and community forestry. These various institutions are essential to ensure the successful resettlement of villages into new locations and livelihood systems, such as:

- reservoir fishers - community organisations at the village and reservoir level;
- resettlement area forestry - community organisations at the village and resettlement area level; and
- irrigation - village organisations at village level.

Thus, a range of livelihood specific community institutions will have to be developed, at both the village and whole resettlement area level, to deal with issues arising from resource management.

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4 A complete listing of the VRCs on the Nakai Plateau is displayed in Annex 6-6.
6.6.2 Nakai Plateau Village Forestry Association

A unique and crucial feature of the NT2 Project SDP is the development of local village's management of the resettlement area production forest. In order to manage and sustainably utilise the forests of the resettlement area for the exclusive benefit of the resettled households the GoL has worked with the NT2 Project to establish the Nakai Plateau Village Forest Association (NPVFA). This association is composed of all PAPs on the Nakai plateau, although in each of the 15 villages, the Village Forestry Committees (VFCs) represent the association members in most meetings and decision making processes (see Figure 6-4).

6.6.3 Reservoir and Fisheries Management

Although the NT2 reservoir will be a valuable resource for resettled families, it will be used for a number of potentially competing and conflicting purposes by a wide variety of stakeholders. These multiple uses include power-generation, transport, conservation, fishing, tourism, agriculture (drawdown area) and other recreational and income related purposes. In order to manage these diverse functions, a Reservoir Management Coordination Authority (RMCA), comprising representatives of all the major stakeholders, will be established to formulate policy and take all major decisions in regard to reservoir management.

It is essential that the diverse need of all resettlement villagers are fully represented in decisions taken by the RMCA. To achieve this, a Nakai Reservoir Fishers Association (NRFA) will be formed, comprising members of all village groups or committees formed to ensure sustainable and effective management of livelihood activities which rely on the reservoir or its resources. This Association will represent the combined interests of all resettlement villages in regard to reservoir management decisions by the RMCA. For the NRFA to effectively represent member interests, which in some instances may be at variance to the interests of possibly more influential groups, it will require significant capacity building and support.

At the village level, groups with interests in the reservoir and its resources will most likely be formed into a Village Fisheries and Reservoir Committees (VFRC), established to promote reservoir-based activities within the community, including fishing, drawdown-area grazing, recession cropping, duck raising, and transport and tourism-related activities. The VFRCs will thus represent village interests at the level of the entire resettlement area in regard to reservoir management through the VRMA.

The various institutions and diverse groups with an interest in reservoir management will need to be linked and organized if they are to effectively cooperate in the best interests of all reservoir stakeholders, and a representation of these possible links and groups possible is presented in Figure 6-5.
Figure 6-4: Indicative Organization of the NPVFA

General Assembly of Member Families

<table>
<thead>
<tr>
<th>KhonKene Village Assembly</th>
<th>Done Village Assembly</th>
<th>SopOn Village Assembly</th>
<th>KaOy Village Assembly</th>
<th>Ponsavan Village Assembly</th>
<th>Kengyao HatKhPhan SopMa Village Assembly</th>
<th>Bouama Village Assembly</th>
<th>Nong Boua Village Assembly</th>
<th>PhonPaan Paek Village Assembly</th>
<th>Oudomsoul Village Assembly</th>
<th>NakaiDtai village Assembly</th>
<th>NakaiNeua Village Assembly</th>
<th>Nong Bouakhm village Assembly</th>
<th>Talang Village Assembly</th>
</tr>
</thead>
</table>

Assembly of Village Representatives (5 per village – VFC)

<table>
<thead>
<tr>
<th>KhonKene VFC Officers 5</th>
<th>Done VFC Officers 5</th>
<th>SopOn VFC Officers 5</th>
<th>KaOy VFC Officers 5</th>
<th>Ponsavan VFC Officers 5</th>
<th>Kengyao HatKhPhan SopMa VFC 5</th>
<th>Bouama VFC Officers 5</th>
<th>Nong Boua VFC Officers 5</th>
<th>PhonPaan Paek VFC Officers</th>
<th>Oudomsoul VFC Officers 5</th>
<th>NakaiDtai VFC Officers 5</th>
<th>NakaiNeua VFC Officers 5</th>
<th>Nong Bouakhm VFC Officers 5</th>
</tr>
</thead>
</table>

External Board of Inspection

President of the NPVFA

Vice President

Board of Management

- Manager
- Deputy Manager

- Forestry Division
- Processing Division
- Sales Division
- Finance Division
- Administration Division

Selected and hired experts

Elected by Assembly of village representatives

Regular staff

Village Work Teams

|---------------------|----------------|-----------------|-----------------|---------------------|----------------------------------|------------------|---------------------|----------------------|----------------------|---------------------|---------------------|---------------------|------------------|
6.7 GRIEVANCE COMMITTEE

Irrespective of how well conceived and planned the resettlement program may be, individual or village complaints will be encountered. To ensure that the basic rights and interests of resettlers are protected, concerns adequately addressed and entitlements delivered, a grievance procedure has been designed for NT2.

The grievance procedures, and more particularly the agencies involved, have recently been reviewed in order to avoid lengthy procedures for addressal of grievances. Thus, there will only be now three levels, or agencies involved in reviewing and adjudicating on grievances brought forward by villagers (see chapter 8 for details), namely:

(i) Village Grievance Committee, and indigenous organisations composed of village elders and other respected persons in the community, which will be strengthened by the NT2 Project

(ii) District Grievance Committee, which will be basically the Districts Justice Department, assisted by 3 other people from (a) the District cabinet, (b) the LWU, and (c) the LNFC

(iii) The Provincial Grievance Committee, which will be the Provincial Courts

This Project Grievance Committee (PGC) will review and adjudicate upon grievances submitted by any persons, firstly at the village, then the District and finally the Provincial level (if the earlier step could not resolve the grievance), or RMU level. The GoLs RMU, the DRWGs and the NTPC would called as technical specialists or witnesses to any grievance hearing.

The findings of the DGC and PGC are binding on the RMU and RO. The Committee must maintain a public record showing all claims received and the decisions made, which must be taken within 30 days. The DGC & PGCs cannot award compensation that goes beyond what is established as a matter of practice or what would be outside the limits of the budgets agreed to by the NT2 project and Resettlement Committee. Beyond the DGC, access to the PGC, or the Court is a last resort.
6.8 Other Agencies and Organizations

6.8.1 Provincial Authorities

Khammouane, Savannakhet, and Bolikhamxay Provinces are represented on the Resettlement Committee and in the Resettlement Management Unit. Many aspects of the resettlement implementation require the approval and support of the provincial government including all land allocation activities for resettlement purposes. Similarly all changes in government service facilities, such as setting up new clinics and schools in the villages also require approval by different departments of the provincial governments. Allocating rights to existing forests to villages requires permission from the provincial government.

These approvals will need to be either granted prior to construction commencing, as a fast track approval system or as authority delegated to the RMU, so that delays do not hamper Project implementation. It is important, therefore, that during the resettlement planning and implementation, the RMU work closely with concerned provincial governments and departments to keep them fully informed on progress so that they do not feel by-passed. Village plans will need to be submitted to allow for timely review by provincial officials.

6.8.2 Lao Women’s Union (LWU)

The LWU will play an important role in resettlement implementation for the Project. They will help organize designated activities, particularly those involving the community, and coordinate training on different subjects, such as public health, family planning, education and skills for women.

Representatives of provincial LWU and district level LWU will be hired as staff in both the RMU, and the DRWGs. In other words, they will be part of the management teams in carrying out designated resettlement activities for the Project. Addressing gender issues in the resettlement villages, and initiating income generating activities targeted to women will also be a responsibility of the LWU.

6.8.3 Consultants and Contractors

Many of the technical activities concerning relocation, infrastructure and livelihood can be carried out by private contractors and local or international consultants under specific contracts to the NTPC or the RMU. Some of these organizations will have technical capacity, extensive knowledge of local socio-economic conditions and experienced local staff, which will allow them to quite effectively carry out some designated components of the resettlement program. Co-operation between consultants and contractors on the one hand and government organizations responsible for implementing the RAP will provide excellent opportunities for the transferral of skills and knowledge. This implies that training (on-the-job) should be an important aspect of contracts.

Some examples of the types of contracts, which may be let, are:

(i) Studies and surveys: including both baseline studies and soil surveys within the identified agricultural land for each resettled village. Most socio-economic and other surveys will be undertaken jointly by NTPC and GoL, although there may be some sub-contracting to GoL agencies.

(ii) Construction: including house construction by local/national contractors using the villagers themselves as labourers, electricity installations by qualified contractors, irrigation infrastructure by regional/national contractors and road construction also by local contractors.

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5 There is a strong case for the NTPC to develop its own Irrigation Construction Unit, to be operational for three to four year since no local companies in Lao have any experience or skill in the development of terraced upland irrigation systems.
6.8.4 NGO Involvement

NGOs have skills that may enhance government organizations in carrying out specific tasks as outlined in the RAP. Such tasks may include developing and implementing agricultural activities, organizing community-based development activities, aspects of the health program and adult education. These activities will not only help to develop village-based organizations and capacities, but also provide excellent training opportunities for staff from provincial and district agencies.

6.9 RESettLEMENT MONITORING

To ensure that the SDP is implemented successfully and that the villagers materially improve their livelihood after resettlement, a monitoring program will be implemented consisting of two components. Internal monitoring will be undertaken jointly by the NPTC’s RO and the GoL’s RMU, and will regularly monitor both (a) the physical progress of resettlement implementation against the planned schedule, and (b) the development of (or compensation for) livelihoods by project affected families.

6.9.1 Independent External Monitor (IEM)

While the main objective of the NT2 Resettlement Policy is to ensure that PAPs are better off after resettlement, achievement of this objective may be difficult to judge by those implementing the Plan. To overcome this, monitoring and evaluation will be undertaken by an independent institution (the Independent External Monitor or IEM), engaged to supplement and backstop the internal monitoring.

The IEM will be recruited to ensure that potential candidates, who may include NGOs and social science institutions, have the appropriate work experience and qualifications to carry out the external monitoring and. Selection of the IEM, at Project approval, will be made jointly by the RO and the RC/RMU, who will ensure an appropriate selection of international and Lao members of the agency. The likely composition and annual inputs of team members of the IEM would include:

- International Monitoring Specialist, for 1.5 months per year
- Regional Monitoring Specialist for 3 months per year
- A senior Lao Monitoring Specialist, as manager, full time
- Junior Lao monitors, 5 in total, full time

The IEM will ensure that pre-project socio-economic, health and fish baseline data, among others, are adequate benchmarks for monitoring during the resettlement implementation period. They will then be responsible for verifying and reporting on:

- Implementation of the resettlement obligations and social development objectives of the CA;
- Changes in social and economic conditions of re-settler households (based on internationally acceptable indicators developed for re-settlers for income level, sources of income, food sufficiency and nutrition, basic health and education conditions, status of women, status of ethnic groups and similar such criteria);
- Progress of re-settlers in reaching the Household Income Target and the Village Income Target with special attention paid to the poorer households and female-headed households;
- Achievement of the Resettlement Objectives and Resettlement Provisions;
- Any other aspects of the Resettlement Process which the RC considers is necessary to monitor and evaluate at any particular time.

6.9.2 Panel of Social and Environmental Experts

A three member Panel of Experts (PoE) has been established by the GOL with approval and guidance from the World Bank. It is mandated to provide GoL with an independent assessment and review of environmental and social issues associated with the NT2 Project. The PoE is required to act independently of both GoL and NTPC and in accordance with relevant World Bank guidelines, and protect both the environment and the interests of those affected by the NT2 Project.
The PoE comprises three members who are experts of international standing. The CA requires that one member shall be an environmental generalist with expertise in environment/development trade-offs, one other member shall have expertise in tropical forest and biodiversity conservation, utilization and management, and the third member shall be a social scientist with expertise in resettlement and indigenous peoples in South East Asia. Alternatively, one member may be as recommended unanimously by the two other members as being an expert in a field related to any of those specified requirements and who is considered by them as a person who will enhance the role and function of the PoE. All candidate members must also be acceptable to the World Bank.

Any vacancy in the membership of the PoE may be filled by the GoL provided that the criteria above are satisfied and subject to NTPC having the right of veto on one out of any three qualified candidates put forward by GoL. The GoL may terminate the appointment of any member.

The PoE is an independent body, achieved by:

- The explicit requirement in the CA that the PoE must act independently of the GoL and NTPC and in a manner which, in the Panel’s own opinion, and in accordance with the World Bank Guidelines, best protects the environment and the interests of those affected by the NT2 Project;
- NTPC guaranteed funding commitment for the PoE up to an annual ceiling while the PoE is kept as a standing body;
- The requirement that the PoE be a standing body until the third anniversary of the COD and thereafter, at the discretion of the GoL, be a standing body until the sixth anniversary of the COD and, in any event, for the remainder of the Concession Period, be an ad hoc body which may be reconstituted from time to time at the direction of the GoL;
- The provisions that the qualifications, experience and independence of the individual members of the PoE cannot be challenged by NTPC;
- The provisions that the individual members of the PoE cannot be sued by NTPC in respect of any comment or recommendation made by them, whether made in accordance with the provisions of the CA or not, even if made negligently and even if NTPC or another person suffers loss as a result of NTPC complying with that comment or recommendation;
- Limiting the rights of NTPC to appeal a comment or recommendation of the PoE, requiring that there be three Experts to hear the appeal and providing that those three Experts may only find against a comment or recommendation of the Panel of Experts if they find a breach by the Panel of Experts of the requirements;
- Subject to compliance with requirements outlined in the CA, an ability to amend or overturn its previous comments or recommendations except in respect of matters referred to them.

The PoE has had six missions on the Project to date, including January and July 1997 and in January 1998, 1999, 2001 and 2003. Appendix D presents the PoE comments on resettlement, while the EAMP contains copies of the complete PoE reports.

The POE’s functions and obligations include:

- Providing an independent review of, and guidance on the treatment of environmental and social issues associated with the Project;
- Those specific rights set out in the Concession Agreement in respect of social and environmental issues relating to the Project;
- Providing written reports stating whether, in their opinion the parties have complied with their respective Environmental and Social Objectives; and the World Bank Guidelines have been complied with in the amelioration or remediation of Unanticipated Project Impacts;
- Recommending remedial action in the case of considered non-compliance.
Annex 6-1: Modified Division of Responsibilities between GoL and NTPC

The Concession Agreement, Schedule 4, Part 1, clause 7 to 12 set out the framework and the detailed division of responsibilities between the NTPC and the GoL. Following review of the CA by key stakeholders, some modifications have been suggested to be made to this matrix, mainly to include NTPC to provide a backup role to the GoL for certain activities, and these are indicated in Table 6-12.

Table 6-12: Summary of Responsibilities of NTPC and GoL as per CA, with some modifications

<table>
<thead>
<tr>
<th>CA reference</th>
<th>SDP reference</th>
<th>Activity description</th>
<th>Responsible Party</th>
<th>Supporting Party</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Finalisation of Social Development Plan</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>Village Development (plateau): Planning Stage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>App. H, Ch. 10</td>
<td>Population census, socio-economical survey, registration</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>Ch. 19</td>
<td>Survey of village land areas and suitability (irrigation and soil condition)</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>7.3</td>
<td>Ch. 19</td>
<td>Plan village locations</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>7.4</td>
<td>Ch. 4 &amp; 19</td>
<td>Consult village on village location and other matters</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td>Ch. 19</td>
<td>Prepare and move pilot village</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>7.6</td>
<td>Ch. 19</td>
<td>Prepare detailed site plans and plot plans</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>7.7</td>
<td>Ch. 4 &amp; 19</td>
<td>Consult with villages on the plans</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>7.7.1</td>
<td>Ch. 4</td>
<td>consult with the Resetters on the Detailed Village Plans, (...)</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>7.7.2</td>
<td>Ch. 19</td>
<td>revise the Detailed Village Plans to take into account all reasonable recommendations from the Resetters</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>7.8</td>
<td>Ch. 19</td>
<td>Finalise the location for each household</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>7.9</td>
<td>Ch. 19</td>
<td>Inform households of their location</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>7.10</td>
<td>Ch. 20, 27</td>
<td>UXO survey and clearing for Resettlement Area, community awareness program, on-call</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>Village Development (plateau): Implementation Stage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>Ch. 19</td>
<td>Obtain land certificate from Provincial Government</td>
<td>RMU</td>
<td></td>
</tr>
<tr>
<td>8.1.1</td>
<td>Ch. 19</td>
<td>Provision of such information as the Khammouane Provincial Government requires in order to grant a land certificate (...)</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>8.1.2</td>
<td>Ch. 19</td>
<td>RMU responsible for liaising with the Khammouane Provincial Government to obtain the land certificate</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.2</td>
<td>Ch. 19, 27</td>
<td>Clear Village sites - Land clearing and fencing</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>8.3</td>
<td>Ch. 19, 19.7</td>
<td>Develop a mechanism to distribute farm/house plots among households</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>8.4</td>
<td>Ch. 19, 27</td>
<td>Organise the villages for relocation, including transport</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>8.5</td>
<td>Ch. 20</td>
<td>- Design and construct infrastructure and equipment - Relocation of Cultural Heritage</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>8.5.1-8.5.18, 8.5.21</td>
<td>Ch. 20</td>
<td>Infrastructures : Access roads, Electricity (generators + 22 kV line); ponds, water supply, irrigation, community buildings</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>8.5.19</td>
<td>Ch. 20</td>
<td>GOL to provide detailed plans to the Company regarding the relocation of items of cultural heritage</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.5.20</td>
<td>Ch. 20</td>
<td>move items of cultural heritage for each village ; (...).</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>8.6</td>
<td>Ch. 20</td>
<td>Construction of house for each family of Resettlers</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>8.7</td>
<td>Ch. 26, 37</td>
<td>Physical relocation</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.7.2</td>
<td>Ch. 19, 27</td>
<td>All resettlers to be relocated before Reservoir impoundment</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>8.7.3</td>
<td>Ch. 10</td>
<td>(...) no establishment of households other than bona fide Resettlers</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.7.4</td>
<td>N.A.</td>
<td>with some flexibility to allow for some relatives of resettlers to return</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.7.5</td>
<td>N.A.</td>
<td>Preferences of any Resetters to be relocated in Stage 2 to move for legitimate reasons in Stage 1 should be considered</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.8</td>
<td>Ch. 8, 17, 38, 44</td>
<td>resettlement monitoring (RO and RMU + IEM)</td>
<td>NTPC + GoL</td>
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<tr>
<td>Livelihood Development (plateau): Planning Stage</td>
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<tr>
<td>9.2</td>
<td>App. 1</td>
<td>Demonstration farm</td>
<td></td>
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</tr>
<tr>
<td>9.2.1</td>
<td>Pre-SDP</td>
<td>Maintenance of the demonstration farm at Theun Duane</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>9.2.2</td>
<td>Pre-SDP</td>
<td>Evaluation of the experience gained from the demonstration farm</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.2.3</td>
<td>Pre-SDP</td>
<td>Adjustment of the plans for the Resettlement Process</td>
<td>NTPC</td>
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### Livelihood Development (plateau) : Implementation Stage

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<tr>
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<tbody>
<tr>
<td>9.3</td>
<td>Ch. 23</td>
<td>Identification of forest resource for agro-forestry activities</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>9.4</td>
<td>Ch. 4, 19</td>
<td>Consultations + awareness raising with Reservoir villages on livelihood issues</td>
<td>GoL + NTPC</td>
<td></td>
</tr>
<tr>
<td>9.7</td>
<td>Ch. 23</td>
<td>Community Forestry Program</td>
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<td></td>
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<tr>
<td>9.8</td>
<td>Ch. 21</td>
<td>Livestock Improvement Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.8.1 to 9.8.4</td>
<td>Ch. 21</td>
<td>A program to improve livestock productivity will be undertaken once the Resettlers have been relocated, Surveys of common grazing areas and mapping Preparation of livestock development program</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.8.5 to 9.8.10</td>
<td>Ch. 21</td>
<td>Training in livestock management and disease control Improved stock for breeding Purchase of small-scale equipment for feed mixing and processing Salaries and wages of staff Veterinary supplies Contingency</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>9.9</td>
<td>Ch. 21, 22</td>
<td>Agricultural Development Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.9.1</td>
<td>Ch. 21, 22</td>
<td>Improvement of agricultural productivity on home gardens and in the wetland rice areas (…) Preparation of an agricultural development plan</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.9.2</td>
<td>Ch. 21, 22</td>
<td>Resettlement Village planning, including demarcation of specific areas for wetland rice</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.9.3</td>
<td>Ch. 21, 22</td>
<td>Development of a minimum of 150 hectares for wetland rice production Seeds and other planting material/equipment Fertilisers and other agro-chemicals Audio visual aids for extension work</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.10</td>
<td>Ch. 4, 19</td>
<td>Consult with villagers on livelihood packages</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>9.11</td>
<td>Ch. 24</td>
<td>Fisheries Development Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.11.1</td>
<td>Ch. 24</td>
<td>Implementation of a fisheries program to ensure that the Reservoir is productive after the villages have been established. All boats in the Reservoir to be registered</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.11.2</td>
<td>Ch. 24</td>
<td>Preparation of a fisheries development plan for a sustainable fishery in the Reservoir (and organisation of activities on a community basis among the households). (…)</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.11.3</td>
<td>Ch. 24</td>
<td>Introduction of native fish species to the Reservoir</td>
<td>GoL</td>
<td>NTPC</td>
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<tr>
<td>9.11.4, 9.11.5</td>
<td>Ch. 24</td>
<td>Equipment and fishing gear Ice plant</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>9.11.6 - 9.11.8</td>
<td>Ch. 24</td>
<td>Organisation of marketing of fish and fish products Salaries and wages of fisheries staff Training costs</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
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</table>

### Community Development (plateau) : planning stage

<table>
<thead>
<tr>
<th>CA reference</th>
<th>SDP reference</th>
<th>Activity description</th>
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</thead>
<tbody>
<tr>
<td>11.1</td>
<td>Ch. 26</td>
<td>Set up Village Resettlement Committee in each village (VRC)</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>11.2</td>
<td>Ch. 7</td>
<td>Develop a training program for the RMU, DRWGs and VRCs, after need assessment</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>11.3</td>
<td>Ch. 26</td>
<td>Pre-relocation activities plan</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>11.4</td>
<td>Ch. 26</td>
<td>Community development plan</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>CA reference</td>
<td>SDP reference</td>
<td>Activity description</td>
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<tr>
<td>11.5</td>
<td>Ch. 4, 26</td>
<td>Consultation of the villages on community development plan</td>
<td>GoL</td>
<td></td>
</tr>
</tbody>
</table>

**Community Development: Implementation Stage**

8.10 | Ch. 5 | Regional Health Program | GoL | NTPC |
8.10.1 | Ch. 5 | The Company agrees to fund a regional health program for the benefit of Resettlers, aiming at an increase of the general health standards in the Project area, etc. | GoL | NTPC |
8.10.2 to 8.10.4 | Ch. 5 | Implementation | GoL | NTPC |
12.1 | Ch. 5 | Delivery of Resettlers health program (including construction and camp follower camps) | GoL | NTPC |
12.2 | n.a. | Provide income support and employment opportunities | GoL | NTPC |
12.2.1. | n.a. | RMU to coordinate the provision of income support (…) : - To vulnerable households (from the forestry resource dividend fund established by the Nakai Plateau Forestry Association; and | GoL | NTPC |
12.2.2. | n.a. | The RMU to arrange for the provision and distribution of the transitional income support. | GoL | NTPC |
12.2.3. | n.a. | The Company will use its reasonable endeavours to ensure that Resettlers shall have the opportunity to participate in employment activities. | GoL | NTPC |
12.4 | n.a. | Establish guidelines for community development fund with forest resource dividends | GoL | NTPC |
12.5 | Ch. 4, 26 | Commence monitoring of community development using social indicators | GoL | NTPC |
12.5.1 | Ch. 4, 26 | Resettlement monitoring – RO and RMU monitoring | GoL | NTPC |
12.5.2 | Ch. 4, 26 | Resettlement monitoring – independent external monitor | GoL |

**Xe Bang Fai and Downstream areas**

7.11 | App. N Ch. 30, 32, 44 | Fisheries Baseline / Monitoring / reporting for the Xe Bang Fai region | NTPC | GoL |
7.11.1 | Ch. 30, 32 | Five year baseline study; Company to furnish the results obtained in the study to the GOL | NTPC | GoL |
7.11.2 | Ch. 44 | Monitoring of impacts caused by the Project on the fishery resources; report of findings to the GOL at least twice per year. | NTPC | GoL |
7.11.3 | App. N | Completion of a baseline socio-economic and health survey; Update one year prior to the COD; Two updates + report on findings to the GOL. | NTPC | GoL |
7.11.4 | Ch. 40, 42 | RC to discuss the findings of the above monitoring with the villages | GoL | NTPC |
8.9.3 | Ch. 40, 42 | Provide entitlements to Project Affected Persons: Upper and Middle Xe Bang Fai areas | GoL | NTPC |
8.9.3.1, 8.9.3.2 | Upper and middle Xe Bang Fai | | GoL | NTPC |
8.9.5 | App. N | Provide entitlements to Project Affected Persons: Dam region | NTPC | GoL |
8.9.5.1 | Vol. 4 | Develop compensation schemes (to be approved by RC) for PAP (including area between the Hinboun head pond and the Dam). (…) | NTPC | GoL |
8.9.5.2 | The Company to provide compensation funding and the RMU to effect compensation in accordance with the compensation schemes | GoL | NTPC |

**Project Lands Program**

8.9 | Vol. 4 | Provide entitlements to Project Affected Persons | GoL | NTPC |
8.9.1 | Vol. 4 | The Company will fund, and GoL shall provide, compensation to PAP | GoL | NTPC |
8.9.4 | Vol. 4 | Power Station and Transmission Lines | GoL | NTPC |
8.9.4.1 | Develop compensation schemes, to be approved by RC. | NTPC |
8.9.4.2 | The Company to provide compensation funding… | NTPC |
8.9.4.2 | … and the RMU to effect compensation in accordance with the compensation schemes | GoL | NTPC |
### Chapter 6: Organizational Framework and Responsibilities

<table>
<thead>
<tr>
<th>CA reference</th>
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<th>Activity description</th>
<th>Responsible Party</th>
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<tbody>
<tr>
<td>8.9.2</td>
<td>Vol. 4</td>
<td>Regulating pond and Downstream Channel areas</td>
<td></td>
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<tr>
<td>8.9.2.1</td>
<td></td>
<td>Development of compensation schemes for PAP (…), to be reviewed and approved by RC.</td>
<td>NTPC</td>
<td>GoL</td>
</tr>
<tr>
<td>8.9.2.2</td>
<td></td>
<td>Provision of compensation funding to the RMU, RMU to effect compensation to PAP in accordance with the compensation schemes</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
<tr>
<td>8.9.2.3</td>
<td></td>
<td>- design, construction and maintenance of the Regulating Pond, the regulating dam, necessary access roads and agricultural bridges across the Downstream Channel; - community consultation to determine the locations for the bridges; - RC’s no-objection to be granted for the intended locations. (…)</td>
<td>NTPC</td>
<td></td>
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<tr>
<td>8.9.2.4</td>
<td></td>
<td>Maintain agricultural bridges across the Downstream Channel</td>
<td>GoL</td>
<td></td>
</tr>
<tr>
<td>8.9.5</td>
<td>Vol. 4</td>
<td>Dam region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.9.5.1</td>
<td></td>
<td>develop compensation schemes (to be approved by RC) for PAP</td>
<td>NTPC</td>
<td></td>
</tr>
<tr>
<td>8.9.5.2</td>
<td></td>
<td>The Company to provide compensation funding and the RMU to effect compensation in accordance with the compensation schemes</td>
<td>GoL</td>
<td>NTPC</td>
</tr>
</tbody>
</table>

### Post - Resettlement Support

| Ch. 28       | Establishment of the SERF and maintenance of the SERF | GoL |

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November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1
Annex 6-2: Terms of Reference for Technical Staff Assigned in RMU

The GoL/Resettlement Management Unit (RMU)/Livelihood Training Unit will be staffed with 13 Subject Matter Specialists (SMSs) who are assigned from the province or from national level to deliver technical and coordination support to the Project. The SMSs will all be staff who are seconded from the province to support the implementation of the Project during the life of the RMU. Although they may not work full time in Nakai they would be expected to spend at least 50 percent of the time working in Nakai district specifically supporting the extension activities in the resettled villages. They will be paid daily allowances for the periods that they spend working in the district. Their primary responsibility will be to provide technical support to the field staff assigned in the District Resettlement Working Groups (DRWGs) who will comprise the Agricultural Extension Workers (AEWs), Livestock Extension Workers (LEWs), Village Irrigation Assistants (VIAs) and Village Forestry Agents (VFAs), all in close collaboration with NTPC staff and TA.

The specific ToRs for these staff are outlined below.

**Agronomist:**
The Agronomists will be seconded to provide regular supervision to the AEWs who are assigned within the DRWGs. They will be based in the DAFO in Nakai, and will work in close collaboration with the other SMSs of the RMU and the NTPC/RO TAs. They should be graduates in Agriculture with at least 10 years field experience.

Their specific tasks will include:
- Assist the AEWs in the identification of farmers leaders who can be trained as farmer extension agents;
- Compute the seasonal requirements for agricultural inputs and assist the NTPC/RO staff in the procurement process;
- Provide regular supervision of the AEWs in the implementation of the annual programs of on-farm trials and demonstrations;
- Provide regular supervision of the operation of the Demonstration Farm and the Pilot Nursery to ensure that the facilities are adequately maintained and the production and trials programs are effectively implemented;
- Act as resource persons in the conduct of the FFSs on Irrigated Paddy Production, Integrated Irrigated Diversified Crop Production and Soil Fertility Improvement;
- Assist in the facilitation of the Annual Extension Planning Workshops and the reflection meetings for farmers.
- Assist the local TAs in the preparation of the annual work plans and budgets;
- Implement the monitoring procedures to measure the impact of the Agricultural Development Program measuring the uptake of intensified cropping patterns, utilisation of inputs and the production levels obtained.

**Livestock Specialist**
The Livestock Specialist will be seconded to provide regular supervision to the LEWs who are assigned within the DRWGs. He/she will be required to work in the DAFO in Nakai, and will work in close collaboration with the other SMSs of the RMU and the NTPC/RO TAs. He/she should be a graduate in Agriculture with at least 10 years field experience.

His/her specific tasks will include:
- Provide technical support to the LEWs in the selection of farmer co-operators and in the establishment of the annual programs of trials and demonstrations on improved livestock husbandry;
- Assist the LEWs in the identification of farmers to be trained as Village Livestock Agents;
- Act as resource persons in the conduct of the training of farmers prior the dispersal of livestock on improved Livestock Husbandry;
- Supervise the procurement of seed of forage grasses and legumes and provide technical support in the establishment of forage nurseries;
• Coordinate the annual procurement of supplies of vaccines and biologics for the VLAs;
• Assist in the facilitation of the Annual Extension Planning Workshops and the reflection meetings for farmers;
• Assist the local TAs in the preparation of the annual work plans and budgets;
• Implement the monitoring procedures to measure the impact of the Livestock Improvement Program measuring the impact of livestock dispersal programs, the activities of the VLAs and the production levels obtained.

**Field Irrigation Engineer:**
The Field Irrigation Engineer will be seconded to provide regular supervision to the VIAs who are assigned within the DRWGs. He/she will be based in Nakai district, in DAFO work in close collaboration with the other SMSs who are working in the RMU and the NTPC/RO TAs. He/she should be graduates in Agricultural Engineering and have at least 10 years field experience in crop irrigation.

Their specific tasks will include:
• Assist the NPTC/RO TAs in the design of the irrigation layouts for each of the resettled villages;
• Provide technical support and hands-on training to the VIAs in preparing water distribution schedules for irrigated upland crops and irrigated paddy production and the maintenance of the field level distribution systems by the Water User Groups;
• Act as resource persons in the conduct of FFSs on Irrigated Paddy Production and Integrated Irrigated Diversified Crop Production;
• Provide regular supervision of the operation of irrigation systems at the Demonstration Farm and the Pilot Nursery to ensure that adequate water supplies are ensured for the dry season cropping;
• Assist in the facilitation of the Annual Extension Planning Workshops and the reflection meetings for farmers;
• Assist the local TAs in the preparation of the annual work plans and budgets;
• Implement the monitoring procedures to measure the extent of irrigated upland crop production and irrigated paddy production.

**Water User Group Organiser:**
The Water User Group (WUG) Organisers will be seconded for a period of up to five years to provide direct support to the AEWs in the formation of WUGs in each resettled village, which will have responsibility for maintaining the irrigation infrastructure at field distribution level. The WUG Organisers will be based in the DAFO in Nakai, and will work in close collaboration with the other SMSs of the RMU and the NTPC/RO TAs. They should have at least 10 years field experience in community organising activities preferably in the uplands amongst ethnic minorities.

Their specific tasks will include:
• In collaboration with the AEWs facilitate the establishment of WUGs in each village, the appointment of group leaders and the training of the members in the management of the irrigation water and the maintenance of the field level water distribution infrastructure;
• Provide hands-on training to the VIAs in the conduct of regular meetings of the WUGs in each village and the introduction of appropriate techniques for conflict resolution in relation to water distribution;
• In collaboration with the VIAs and WUG members introduce formal mechanisms, which may include the formation of a Federation of WUGs, for regular consultations to take place between the farmers and the NTPC who will manage the reservoir water resources;
• In collaboration with the NTPC/RO TAs develop and introduce monitoring systems for adoption by the WUG to measure water utilisation;
• Assist in the facilitation of the Annual Extension Planning Workshops and the reflection meetings for farmers;
• Assist the local TAs in the preparation of the annual work plans and budgets;
• Implement the monitoring procedures to measure the impact of the Agricultural Development Program measuring the uptake of irrigated upland crop production.
Fisheries Specialist
The Fisheries Specialist will be seconded for a period of up to five years to provide direct support to the field extension staff in the DRWG who are assigned with specific responsibility for fisheries extension. The Fisheries Specialist will be based in Nakai district DAFO, and work closely with the NTPC Fisheries staff and TA. The Fisheries Specialist should be a graduate in Fisheries and have at least 10 years field experience in fisheries extension preferably with some experience of reservoir fisheries development.

Their specific tasks will include:
- Assist with training of Fisheries Extension Workers (FEW);
- Coordinate extension activities among fisheries staff;
- In collaboration with the FEWs establish / develop Village Fishing Groups in all villages;
- In collaboration with Fisheries Extension Workers; develop training and awareness campaigns for fishers;
- Coordinate with all stakeholders on reservoir management issues;
- In collaboration with NTPC TAs design the framework for and implement the monitoring of catch, species composition, fishing effort and licensing;

Forester:
Two foresters will be seconded from PAFO to provide direct support to the NPVFAs, in close coordination with NTPC.

Their specific tasks will include:
- Providing liaison between the forestry component of the NT2 Project and the Provincial Forestry Office
- Ensure the forestry surveys obtain the required approvals before, and required endorsements after the conduct of the surveys
- Ensure the annual logging quotas are estimated according to sustainable logging principles, and that they are submitted and approved on time;
- Ensuring the that non-resettlers (non-eligible) persons are not granted logging quotas, or otherwise allowed to conduct logging.
- Ensure logging according to the quota and the logging plan
- Ensure the operation of the sawmill(s) is effective and according to quotas and plans
Annex 6-3: Terms of Reference for District staff (Livelihood Development)

The DRWGs will provide, through the DAFO and assigned to work in the resettled villages, various village extension workers to where Village Extension Offices will be established. The number of these staff will vary during the implementation of the Project but will rise to a maximum of 16 AEWs, 9 LEWs and 8 VIAs by the third year. These staff may comprise some of the existing staff from the DAFO but will also be augmented by contractual staff who are employed by the RMU funded by the NTPC. They will be working full time on the Nakai plateau providing extension support in the resettled villages.

**Agricultural Extension Workers (AEWs)**

The AEWs will be contacted for periods of up to three years on annual contracts, which are renewed subject to satisfactory performance assessment, and are assigned to work under the DRWGs and be based in the VEOs in the resettled villages. They will be responsible to the Manager of the DRWG. They will work in close collaboration with the SMS Agronomists and Water User Group Organisers who are seconded to the RMU. They should be high school graduates ideally with some basic training in Agriculture and preferably with some field extension experience.

The specific tasks will include:

- Identify farmers leaders within each of the resettled villages who can be trained as farmer extension agents;
- In consultation with the farmers in each resettled village identify their seasonal requirements for agricultural inputs;
- Provide direct supervision of the implementation of the annual programs of on-farm trials and demonstrations and coordinate with the farmer co-operators for the conduct of periodic field days and take responsibility for measuring the crop production;
- Identify the participants for the FFSs on Irrigated Paddy Production, Integrated Irrigated Diversified Crop Production and Soil Fertility Improvement, and participate in the periodic farmer training sessions that take place;
- Organise the annual reflection meetings with the farmers in each resettled village to record the accomplishments of the previous years activities and identify problems and issues that need to be addressed;
- Identify the farmer leaders to participate in the Annual Extension Planning Workshops and provide feedback to each resettled village on the content of the plans that are formulated;
- Gather monitoring information under the direction of the SMSs to measure the impact of the Agricultural Development Program measuring the uptake of intensified cropping patterns, utilisation of inputs and the production levels obtained.

**Livestock Extension Workers (LEWs)**

The LEWs will be contacted for periods of up to three years on annual contracts, which are renewed subject to satisfactory performance assessment, and are assigned to work under the DRWGs and be based in the VEOs in the resettled villages. They will be responsible to the Manager of the DRWG. They will work in close collaboration with the SMS Livestock Specialist who is seconded to the RMU. They should be high school graduates ideally with some basic training in Agriculture and preferably with some field extension experience.

Their specific tasks will include:

- Select the farmer co-operators for the establishment of the annual programs of trials and demonstrations on improved livestock husbandry;
- Identify the farmers to be trained as Village Livestock Agents (VLAS) and assist in the organisation of the training of the VLAs;
- Act as resource persons in the conduct of the training of farmers prior the dispersal of livestock on improved Livestock Husbandry;
- Supervise the establishment of forage nurseries and monitor the production organising periodic field days for farmers to visit to observe the performance of the improved grasses and legumes;
- Arrange for the distribution of supplies of vaccines and biologics for the VLAs;
• Participate in the Annual Extension Planning Workshops specifically in relation to the livestock activities and also in the reflection meetings for farmers.
• Assist the local TAs in the preparation of the annual work plans and budgets;
• Gather monitoring information under the direction of the SMSs to measure the impact of the Livestock Improvement Program measuring the impact of livestock dispersal programs, the activities of the VLAs and the production levels obtained.

Village Irrigation Assistants (VIAs)
The VIAs will be contacted for periods of up to three years on annual contracts, which are renewed subject to satisfactory performance assessment, and are assigned to work under the DRWG and be based in the VEOs in the resettled villages. They will be responsible to the Manager of the DRWG. They will work in close collaboration with the SMS Field Irrigation Engineers who are seconded to the RMU. They should be high school graduates ideally with some basic training in Agriculture and preferably with some field experience of irrigated agriculture.

Their specific tasks will include:
• Under the supervision of the SMS Field Irrigation Engineers prepare the water distribution schedules for irrigated upland crops and irrigated paddy production and coordinate the maintenance of the field level distribution systems by the Water User Groups;
• Supervise the operation of the irrigation infrastructure in the resettled villages and provide regular feedback to the Field Irrigation Engineers of any problems that are encountered;
• Assist the AEWs in organising the FFSs on Irrigated Paddy Production and Integrated Irrigated Diversified Crop Production;
• Assist in the facilitation of the Annual Extension Planning Workshops and the reflection meetings for farmers;
• Assist the local TAs in the preparation of the annual work plans and budgets;
• Gather monitoring information under the direction of the SMSs to measure the extent of irrigated upland crop production and irrigated paddy production.

Fisheries Extension Workers (FEWs)
The FEWs will be contacted for periods of up to three years on annual contracts, which are renewed subject to satisfactory performance assessment, and are assigned to work under the DRWG and be based in the VEOs in the resettled villages. They will be responsible to the Manager of the DRWG. They will work in close collaboration with the SMS Fisheries Specialist who are seconded to the RMU. They should be high school graduates ideally with some basic training in Agriculture and preferably with some experience of reservoir fisheries.

Village Forestry Agents (VFAs)
The VFAs will be DAFO staff, or specially contracted staff (for periods of up to three years on annual contracts, renewable subject to satisfactory performance assessment) assigned to work for the NPVFA. They will be responsible to the Manager of the NPVFA, and work in close collaboration with the SMS Foresters who are seconded to the RMU, under the direction of NTPC TA.
Annex 6-4: Terms of Reference of Key RO Staff

The **Social and Resettlement Division Manager** will be work based in Vientiane with frequent travel to the site. His/her main responsibilities will include (i) providing coordination of studies already well advanced as part of securing the World Bank approval to the Social and Resettlement Measures for the NT2 Project and satisfying the needs of the Lenders and other interested parties; (ii) Planning, developing and implementing the Social and Resettlement Measures and related studies/actions required by the CA; (iii) Planning for and take all necessary action to mitigate the effects of NGOs (in liaison with the Public Relations Branch); (iv) Cooperating closely with the Environmental Branch of NTPC.

The main tasks of the manager of the SRD, which will be updated when necessary to reflect the changing responsibilities and activities of the Project team will include:

- Establishing the RO and plan the activity, budget and resource;
- Planning and implementing the actions required for all Social and Resettlement Measures approved within the CA, including interaction with the environmental measures;
- Ensuring that NTPC/NTPC is kept fully informed of its obligations for all Social and Resettlement matters and as a member of the Project Director's Committee, contributing to the project reviews and strategy development;
- Completing the social and resettlement studies and, with working with the GoL Authorities, secure all required approvals, both World Bank and GoL, and direct the provision of such reports and data as are required by the GoL Authorities, the Lenders and other interested parties;
- Taking early action to be prepared for the questions and actions of NGOs and respond positively at all times to NGOs in these matters in liaison with the Public Relations Manager;
- Setting up the procedures and resource to monitor and report on the execution of the Social and Resettlement plans during all phases of the Project;
- Achieving a close working relationship with the International Social and Resettlement Advisors and Lao Advisors in order to secure the benefit and assistance of their specialist input;
- Preparing a Budget for the Branch, as required by NTPC Procedures and monitor Branch expenditure against this Budget;
- Keeping the staff of the Branch informed of Project progress and positively review their activities and training needs.

The **Deputy(Field) Manager, Social and Resettlement**, will assist in the management of social and resettlement activities at the field level, including pilot village infrastructure and community development activities, and a range of pre-resettlement planning and implementation activities. The Deputy(Field) Manager will be leading an interdisciplinary team and work closely with Government of Lao counterparts. He/she will have a degree related to rural development, agriculture, forestry, irrigation, civil engineering or similar and have at least 10 years experience of field projects related to rural development, agriculture, forestry or rural engineering and construction. He/she must have the ability to manage and provide leadership to a multidisciplinary team and to work effectively with GoL agencies and with villagers including ethnic minorities. He/she should have good interpersonal skills and management skills and proficiency in written and spoken English and Lao. Computer literacy will also be required.

Specific tasks will include:

- Leading NTPC field staff of the Social and Resettlement Division in the planning, budgeting and reporting of field based activities, (agriculture, forestry, village infrastructure, village consultations, surveys etc.) on a monthly, annual and sub-project basis;
- Supervising the implementation, and provide key support and leadership to NTPC field staff implementing forestry, agriculture, fisheries, public consultation, baseline studies and other Social and Resettlement Division programs;
- Assessing and reporting on the effectiveness of program implementation;
- Supervising the management of the Divisions budget and related Division administrative tasks;
- Ensuring coordination with other NTPC Divisions, especially the Technical Division, the Administration and Finance Division and the Environment Division;
• Liaison with, and ensure close coordination and cooperation with Government agencies and counterparts, and provide any support and training that may be required by them; and
• Undertaking any other duties as directed by the Manager of the Social and Resettlement Division.

The Village Infrastructure Engineer will be responsible for providing key assistance in the management of the on-going construction of household and public facilities in Ban Nong Boua pilot village, and provide general civil engineering advice on other construction activities as required. The TA will work closely with GoL and NTPC staff and the maintenance of good and effective working relations will be essential. The consultant should have tertiary qualifications in Civil Engineering and at least 10 years experience of working on rural infrastructure projects. He/she will report to the Manager, Social and Resettlement Division and will also work closely with the GoLs RMU and DRWGs, who are jointly responsible for most activities. He/she must be fluent in both Lao and English, and be computer literate and must have the capacity to prepare detailed reports, plans and designs in either language.

His/her tasks will include:
• Providing technical advice on the construction of the remaining 26 houses in Ban Nong Boua pilot village and on the development of domestic water facilities, the on-going electricity installation, the management of the construction of public buildings and any required improvements in access roads;
• Advising on the on-going construction of the sawmill and fertilizer factory;
• Providing advice, as required, to the irrigation system construction program, and draft a program for the operation and maintenance, by Ban Nong Boua villagers, of the irrigation scheme;
• Assisting in the planning and construction and/or repairs of any other buildings related to the NT2 project, as agreed to or directed by the Manager, Social and Resettlement Division or other staff of NTPC, as nominated by the Manager;
• Fulfilling any other related tasks that are identified by the Manager, Social and Resettlement Division, or requested by the RMU or DRWGs in consultation with NTPC and confirmed by the Manager, Social and Resettlement Division.

The Project Lands Baseline Study Coordinator will manage the process of surveying, mapping and recording of villager assets affected by NT2 Project construction. He/she will be required to have a degree in civil engineering, agriculture, forestry, geography or other relevant discipline, have experience and ability in land (and asset) survey, some experience in socio economic survey preferable, some experience in GIS mapping and database systems, and have a demonstrated ability to work with multidisciplinary teams, in the field. A good level of written and spoken English is essential and computer skills are essential. The coordinator will work closely with a consultant contracted specifically to conduct the Baseline Study. He/she will report to the Social and Resettlement Division Manager.

His/her tasks will include:
• Working closely and effectively with relevant Government counterparts and agencies;
• Become familiar with, and able to manage, the GIS and mapping tools, the database tools, the field survey tools and the socio-economic survey tools to be used in the Baseline Study;
• Assisting in and monitor the conduct of both the assets/land field survey and the village socio-economic survey undertaken by the Study Consultant;
• After the Study Consultant has completed the field activities, the coordinator will manage the land/asset inventory database to ensure that it is transferable to use for the asset, land and livelihood compensation process;
• Assisting in drafting and finalizing compensation agreements with project affected persons or villages, and maintain a user friendly database of all compensation arrangements effected;

6 The responsibilities will include planning, designing, costing, tendering, making recommendations regarding the award of tenders, drafting of contracts, management of contracts, monitoring and supervision of the quality and quantity of actual construction activities, and reporting to NTEC on the progress of each construction activity.
Chapter 6: Organizational Framework and Responsibilities

The **Village Consultation Coordinator and Facilitator** will assist the RMU and DRWGs in the preparation, conduct and reporting of public disclosure and consultations activities, mainly on the Nakai plateau and along the Xe Bang Fai river. He/she will report to the Social and Resettlement Manager. He/she will be required to have a degree in social sciences or related discipline and relevant post graduate training and experience in the planning and conduct of village level public consultations and/or PRA. He/she should have experience and ability in village level socio-economic data gathering and experience and ability to work with ethnic minorities. He/she must have good level of written and spoken English and an understanding of local languages (Brou, Bo) would be an advantage. Good computer skills will also be required. He/she will work in Khammoune Province for 75 percent of the time and in Vientiane for 25 percent of the time. The duration of the assignment will be for one year.

The specific tasks will include:

- Assisting in the development of participatory disclosure and consultation (PDC) materials, to be presented to villagers and other stakeholders at the village, district and provincial levels;
- Training, or facilitating training, of PDC teams in participatory consultation and in relevant PRA techniques and tools;
- Ensuring that ethnic minority issues are addressed and incorporated into the implementation of the technical and livelihood programs;
- Assisting in the conduct of village and district level participatory disclosure and consultation programs;
- Assisting in reporting on these consultations, including collation of data gathered and writing of final reports.

The **Site Investigations Engineer** will be required to manage site investigations and contracts and to monitor preliminary works at the Project site in Nakai District and associated areas. The Site Investigation Engineer will report to the Senior Civil Engineer and the Social Manager, depending on the task involved.

He/she must have a civil engineering degree or equivalent professional qualification and have engineering and survey experience of approximately 10 years; construction and or site investigation experience preferable together with good spoken and written English language skills. He/she must be prepared to spend a large proportion of the time in the field. He/she must be computer literate and knowledge of AutoCAD is preferred although not essential. He/she needs to be able to manage consultants, contractors and employees effectively and efficiently and to be self-motivated.

The specific tasks will include:

- Managing and coordinating consultants and contractors who are undertaking site surveys and other engineering related activities;
- Assisting in the development of Terms of Reference (TOR) and contracts for land and engineering survey contractors;
- Monitoring and reporting on preliminary road and bridge works;
- Preparing summary weekly reports of site investigation and preliminary works activities;
- Supervising, monitoring, and participating when required with survey contractors on some tasks;
- Carrying out miscellaneous survey and engineering tasks;
- Preparing budget requests on a regular basis to support field activities;
- Assisting in preparation and interpretation of data, survey results and task reports when required;
- Manage contractors undertaking UXO survey and clearing tasks, including management of the contractor’s reporting requirements as necessary.
Chapter 6: Organizational Framework and Responsibilities

The **Forestry Officer** will be required to work in close partnership with the Forestry SMSs who are seconded to the RMU in supporting all forestry related work. The Forestry Officer will report to the Social and Resettlement Manager. He/she will have a degree in forestry with relevant post graduate training and at least 10 years experience in commercial and community managed forestry and have and aptitude for working effectively with local authorities, villagers and other stakeholders at the field/forest level. He/she will spend most of the time in the Project area. A good level of English is required as well as good computer skills. He/she must be self motivated.

The tasks will include the following:

- Reviewing all information, data, studies, plans, laws and regulations related to forestry, community forestry and the Nakai community forestry plan.
- Assisting local government, the RMU and participating villagers in the development of a community forestry management plan.
- Assisting in identifying and engaging any specialist inputs required to support the development of this plan.
- Parallel to the development of the CFM plan, advising and assisting in initiating and implementing the process of community forestry management.
- Maintaining close cooperation with all relevant stakeholders

The **Agricultural Development Officer** will be required to work in close partnership with the Agronomists and Livestock SMSs in the RMU in the support of the introduction of improved upland cropping patterns and livestock productivity for the re-settlers. He/she will have a degree in agriculture and relevant post-graduate training and have at least 10 years field experience and a demonstrated skill in facilitating the development of agriculture and farming systems by smallholders together with an aptitude for working effectively with local authorities, villagers and other stakeholders at field/village level. He/she will have a good level of English and fair to good level of computer knowledge and skills. He/she will be self-motivated.

The tasks will include the following:

- Reviewing all information, data, studies and plans related to the development of (the agricultural and agro-forestry components) of livelihoods of the population to be resettled;
- Becoming familiar with the current agriculture and farming systems of plateau villagers, and with potential farming systems to be developed in the resettlement areas;
- Advising and assisting local government agencies, the RMU and villagers in the development of appropriate and productive agriculture and farming systems;
- Assisting in identifying and engaging any specialist inputs or training courses required;
- Providing training to local staff and villagers as required;
- Maintaining close cooperation with all relevant stakeholders.

The **Fisheries Officer** will assist in a range of activities related to fisheries and livelihoods based on fisheries. Most activities will initially be in the Xe Bangfai region, but work will also be undertaken on the Nakai plateau, in the Nakai Nam Theun NBCA and downstream Nam Theun. He/she will report to the Social and Resettlement Manager and will have a degree in fisheries (reservoir and/or riverine) management, aquaculture, fisheries biology, aquatic ecology or similar and relevant post-graduate training in socio-economic aspects and fish catch studies would be an advantage. He/she should have experience and ability in the planning and conduct of fisheries and fish catch studies and investigation, especially in a riverine environment in participation with villagers, including ethnic minorities, and experience and ability in gathering of (indirect) information from village level socio-economic surveys or similar. He/she must have a good level of written and spoken English and an understanding of local languages (Brou, Bo) would be an advantage. A good level of computer skills is required. He/she will work in Khammoune Province for 75 percent of the time and in Vientiane for 25 percent of the time.

The tasks will include the following:
• Planning and implement (or manage the implementation of) riverine fishing effort and fish catch baseline and monitoring studies. As most of these studies will be implemented on a daily basis by villagers, and thus the officer must train and assist villagers in the studies to ensure accurate information gathering.

• Reporting on the progress and results of these studies, and make improvements in study methodology as required.

• Assisting on the planning and conduct (the fisheries components) of baseline socio-economic surveys

• Training and guiding GoL staff to assist in the conduct of the studies.

• Advising and assisting in the development of fisheries in the Huay Malai irrigation reservoir, in order to generate income and protein for the pilot village.

• Contributing to the development and confirmation of the NT2 Reservoir Fisheries Management Plan.

• Contributing to the prediction of any impacts on fisheries in the Xe Bangfai (and Nakai Nam Thuen NBCA), and development of options for mitigation and compensation of such impacts.

• Participating in village disclosure and consultation exercises on the Nakai plateau and along the Xe Bangfai.

• Assisting if/as required, in the conduct of aquatic species, migration and habitat studies.

The Public Health Officer will manage the finalization of planning of the health components of the NT2 Social and Resettlement program. He/she will manage the implementation of any health or health related activities undertaken by the Division. And will report to the Manager of the Social and Resettlement Division. He/she will have a degree in Medical Science and/or Public Health and be qualified as a medical doctor with experience and ability in tropical diseases in a public health setting. He/she must have the ability to work with multidisciplinary teams in the field, and to work effectively with GoL agencies and with villagers and with ethnic minorities. He/she should have a good level of written and spoken English, and good computer skills are essential.

The tasks will include the following:

• Ensuring the effective analysis and presentation of health studies and surveys undertaken to date;

• Managing the implementation of any further surveys or studies required, including any HIAs;

• Improving and finalizing the NT2 Project plans, for inclusion in the SDP, in relation to health, including the re-settler Health Program, Regional Health Program and assessment of the Health Program to be developed by the contractors (for construction workers;

• Managing the health aspects of the Pilot Village program, and pre-resettlement program;

• Liaison with, and maintain a close working relationships with Government agencies and staff;

• Working closely with Government counterparts, providing any support and training required by them;

• Assisting in the planning and implementation (health components) of socio-economic baseline surveys or similar; and

• Participating in village disclosure and consultation exercises on the Nakai plateau and along the Xe Bangfai, as required.
Annex 6-5: Terms of Reference of International TA (from NTPC)

Community Development and Ethnic Minority Specialist
The Community Development and Ethnic Minority (CDEM) Specialist will be hired on a full-time basis for the first two years and then recurrent for three years (approximately 4 months per year) – three years in total. The main responsibility of the CDEM Specialist will be to supervise social programmes of the EMDPs and in other sections of the SDP and to train local consultants and GoL staff. He/she will be based in Nakai with period visits to other project districts, Thakhek and Vientiane for coordination and planning with other project staff and GoL agencies. The CDEM Specialists will work closely with RMU staff, district line agencies, mass organisations (LWU and National Front for Construction), technical specialists and other GoL staff involved in community development.

Candidates should have a degree in sociology, anthropology or development studies and at least 5 years experience with social development and ethnic issues in Lao PDR or the region. In addition, ability in conducting culturally sensitive consultations and project implementation experience (field experience) are required. Knowledge of Lao would be an advantage.

Specific duties will include:
- Supervision of all social and ethnic mitigation and development programmes that would facilitate project objectives in a culturally sensitive manner, including the consultation process
- Providing technical assistance, training and support for the RMU in carrying out its duties and responsibilities in relation to resettlement and compensation, including holding ethnic awareness workshops and other events to improve performance in terms of ethnic sensitivity to project planning and implementation
- Integration or ‘mainstreaming’ of ethnic minority issues into project planning and following-up on specific interventions and support
- Ensuring that indigenous knowledge is identified, properly understood and effectively integrated into RAP and mitigation activities, wherever applicable and appropriate
- Ensuring that WB and ADB policies and procedures related to social and ethnic development issues are adequately addressed in accordance with GoL policies and goals for development
- Work closely with GoL specialists and agencies responsible for ethnic minority issues, such as the National Front for Construction, the Institute for Cultural Research and the Department of Ethnicity
- Supervise income generation programmes and community support programmes and coordinate involvement of GoL agencies and NGOs in carrying out tasks, including the formulation of ToRs
- Responsible for additional studies and data collection as well as analysis of results and integration of information into implementation arrangements
- Setting up and supervision of monitoring indicators that are ‘ethnically specific’ and analysis of monitoring results
- Work together with NTPC staff and GoL staff in updating budgets and schedules and documentation of results

Agriculturist
The Agriculturist will be hired for a continuous period of 24 months to provide daily technical supervision during the resettlement of the first set of villages. After that, they could return for up to 6 months per year during the resettlement of the rest of the villages and for the first few years of livelihood development.

He/she will be required to live and work in Nakai and will be based in the DAFO to work in close collaboration with the Director as well as the SMSs assigned in the RMU and the local TAs. He/she will be required to work closely with the other International TAs to provide on-going supervision of the activities that they propose to ensure timely implementation of the program.

The specific duties will include:
• Provide overall technical supervision of the Agricultural Development Program in collaboration with the Director of DAFO and the RMU staff.
• Supervise the provision of support to the DAFO including the improvements to the office accommodation and procurement of equipment and vehicles.
• In collaboration with the PAFO identify specific areas of support to strengthen the capacity of the Seed Production Station in Xe Bang Fai to generate seed of annual field crops for dispersal to the resettled villages.
• Collaborate with the DAFO in the recruitment of incremental extension staff to be deployed in the resettled villages and with the RMU Livelihood Manager in the identification of SMSs to be assigned from PAFO or from national level.
• Supervise the development of the existing Demonstration Farm to provide examples of the proposed cropping patterns for use in farmer training and to develop the capacity of the facility for seed production of upland crops.
• Supervise the development of the existing Pilot Nursery in particular establishing an orchard of selected mother trees to provide scion for use in grafting and propagation of fruit trees.
• Assist in the procurement of inputs for the resettled households providing technical guidance on the selection of varieties.
• Assess the technical training needs of the AEWs and assist the local TAs in the RO design appropriate training modules and the delivery of practical hands on training.
• Design and introduce a monitoring procedure to measure the impact of the Agricultural Development Program focussing on the uptake of the intensified cropping patterns, the utilisation of inputs and the production levels attained.
• Prepare in collaboration with the local TAs, the SMSs in the RMU, DAFO staff and the field extension staff to prepare annual work plans and budgets.
• Document the lessons learned during the first two years of resettlement and formulate recommendations for the continuation of the Agricultural Development Program.

Irrigation Agronomist
The Irrigation Agronomist will be hired for a total period of seven months split into an initial input of 3 months in the first year and 2 month inputs in the two subsequent years. He/she will be based in Nakai and will work in the DAFO to provide technical assistance and support to the Agriculturists and Irrigation Staff assigned to the RMU and the local TAs of the RO.

The specific duties will include:
• Assist the Irrigation Engineers in the RO and the SMSs in the RMU in the design of the irrigation layouts for the resettled villages during the first three years.
• Provide on-the-job training for these staff on irrigation practices with a particular focus on the production of diversified upland crops.
• In collaboration with the SMSs and local TAs provide training to the Village Irrigation Assistants to enable them to perform simple calculations of Irrigation Water Requirements for a range of crops.
• Design and introduce a monitoring procedure to measure the adoption of the irrigation practices by resettled households and identify interventions that may be required or modifications to irrigation layouts and designs in other villages.
• Provide inputs for the annual preparation of work plans and budgets that relate specifically to the development of on-farm irrigation in the resettled villages.
• Document lessons learned during the first three years to provide guidance to the local TAs and SMSs in the future implementation of the Agricultural Development Program.

Livestock Production Specialist
The Livestock Production Specialist will be hired for a total period of seven months split into three inputs of 3 months in the first year and 2 months in the two subsequent years. He/she will be based in Nakai and will work in the DAFO to provide technical assistance and support to the Livestock Specialists and Veterinary Staff assigned to the RMU and the local TAs of the RO.

The specific duties will include:

- In collaboration with the RO and the Livestock Specialists in the RMU make a more detailed assessment of the extent of the livestock populations for the households that are to be resettled and their current production practices.
- Make an assessment of the technical capacity for delivery of veterinary services in the district and in collaboration with the local TAs and SMSs in the RMU design a training program for the VLWs.
- In collaboration with the SMSs of the RMU and the staff of DAFO and PAFO develop the concept of training farmer leaders as Village Livestock Assistants (VLAs) and develop appropriate training modules for these selected farmers.
- Provide technical support in the specification of the content of the veterinary boxes that are to be provided to the VLAs;
- In collaboration with the local TAs and SMSs design cut and carry systems for adoption by resettled villages and recommend appropriate grass and legume forage for on-farm testing to determine the carrying capacity of the farm lots.
- Assist in the design and establishment of on-farm demonstrations of improved pasture and legume forage species in the forested areas, formulate recommendations for the introduction of suitable species that could be planted experimentally in the drawdown zone and provide advice on the utilisation of leguminous hedgerows for cut and carry feeding.
- In collaboration with the SMS in the RMU, as well as the local TAs, provide advice on the selection of the site and the design of the Animal Breeding Centre that will be established in the district and also design appropriate on-farm poultry demonstrations for rearing day old chicks and ducklings.
- To provide inputs for the annual preparation of work plans and budgets that relate specifically to the development of on-farm irrigation in the resettled villages.
- To document lessons learned during the first three years to provide guidance to the local TAs and SMSs in the future implementation of the Agricultural Development Program.

Soil and Water Conservation Expert

The Soil and Water Conservation Expert will be hired for a total period of four months split into two inputs of 2 months over the first two years. He/she will be based in Nakai and will work in the DAFO to provide technical assistance and support to the Agriculturists assigned to the RMU and the local TAs of the RO.

The specific duties will include:

- In collaboration with the SMSs in the RMU and the local TAs in the RO make an assessment of the existing soil and water conservation practices in the Pilot Village and formulate recommendations for implementation in other villages.
- Assist the SMSs and local TAs in an assessment of the existing layout of the Demonstration Farm and propose improvements that can be incorporated into demonstrations on that site for use in farmer training including the testing of alternative hedgerow species for the stabilisation of the contours.
- Advice on the preparation of training modules for the AEWs on appropriate soil and water conservation practices for adoption in the resettled villages.
- Assist the SMSs and local TAs in the design of the soil and water conservation measures in the resettlement villages for the first two years in order to provide them with guidance on procedures for the resettlement areas.
• To conduct an assessment of the soils and topography in each proposed resettlement site to identify any particular problems that may be encountered and make recommendations on how to address these in each site.

• Provide inputs for the annual preparation of work plans and budgets that relate specifically to the development of on-farm irrigation in the resettled villages.

• Document lessons learned during the first two years to provide guidance to the local TAs and SMSs in the future implementation of the Agricultural Development Program.

**Horticulturist**

The Horticulturist will be hired for a total period of four months split into two inputs of 2 months during the first and second years. He/she will be based in Nakai and will work in the DAFO to provide technical assistance and support to the Agriculturists assigned to the RMU and the local TAs of the RO.

The specific duties will include:

• In collaboration with the local TAs of the NTPC/RO and the SMSs in the RMU make an assessment of the vegetable and fruit production in the Demonstration Farm and also in the Pilot Village to identify the most appropriate types that should be introduced.

• Assist the local TAs and SMSs in the preparation of guidelines for irrigated cropping of vegetables in the DS and the incorporation of these into modules for farmer training.

• Assess the varieties of vegetable seeds that are available and introduce procedures for simple performance trials to be conducted at the Demonstration Farm.

• Assist the local TAs and SMS in assessing the extent of pest and diseases on current vegetable crops and prepare recommendations for control measures focusing particularly on IPM measures and the use of biological controls.

• Provide inputs for the annual preparation of work plans and budgets that relate specifically to the development of on-farm irrigation in the resettled villages.

• Document lessons learned during the first two years to provide guidance to the local TAs and SMSs in the future implementation of the Agricultural Development Program.


<table>
<thead>
<tr>
<th>Position</th>
<th>Village</th>
<th>Name</th>
<th>Age</th>
<th>Education/work experience</th>
<th>Occupation</th>
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<td>Farming</td>
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<tr>
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<td>Laborer</td>
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<td></td>
<td>Mr Bounhath</td>
<td>65</td>
<td>Primary school, year 2, Soldier</td>
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<td>34</td>
<td>Secondary school, year 3, Laborer</td>
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<td>Trade</td>
</tr>
</tbody>
</table>

- **Village Nakai Neua**
  - Village chief: Mr. Sanamsai Phengsylom (36, Primary school year 3, Used to be driver, Farming, livestock)
  - 1st deputy: Mr. Banechong (50, Secondary school year 1, Police officer, Farming, livestock)
  - 2nd deputy: Mr. Sinenorkeo (48, Primary school year 5, Civilian, NTFP-seeker)
  - Elders Committee: Mr. Kany (48, Primary school year 2, Soldier, Farming, livestock)
  - Woman Union: Ms On (43, Primary school year 2, Civilian, NTFP-seeker)
  - Youth: Mr. Keo (22, Primary school year 5, Civilian, NTFP-seeker)

- **Village Nakai Tai**
  - Village chief: Mr. Keo thosa (38, Primary school year 3, Civilian, Farming, livestock)
  - 1st deputy: Mr. Ninda Southanon (50, Secondary school year 1, Soldier, Farming, livestock)
  - 2nd deputy: Mr. Pheng dokkeo (38, Primary school year 5, Civilian, NTFP-seeker)
  - Elders Committee: Mr. Kany (48, Primary school year 2, Soldier, Farming, livestock)
  - Woman Union: Ms. Sa (43, Primary school year 5, Civilian, NTFP-seeker)
  - Youth: Mr. Sang (43, Primary school year 5, Civilian, Farming, livestock)

- **Village SopMa**
  - Village chief: Mr. Vanhsay Leuisananh (64, Primary school year 3, Provincial youth, Farming, NTFP-seeker)
  - 1st deputy: Mr Phui (40, Primary school year 2, Civilian, Farming, NTFP-seeker)
  - 2nd deputy: Mr. Khamsavath (35, Primary school year 3, deputy Village chief, Farming, NTFP-seeker)
  - Elders Committee: Mr. Phouan (67, Primary school year 1, Soldier, NTFP-seeker)
  - Woman Union: Ms. Sai (46, Primary school year 2, Woman Union, Farming, NTFP-seeker)
  - Youth: Mr Khamphai (36, Primary school year 4, Private teacher, Farming, NTFP-seeker)

- **Village SopPhene**
  - Village chief: Mr Khouan Syphachanh (46, Secondary school, Year 3, Security, Farming, NTFP-seeker)
  - 1st deputy: Mr. Vath Souichanh (43, Primary school year 2, Security, Farming, NTFP-seeker)
  - 2nd deputy: Mr. Phom (39, Primary school year 2, Soldier, Farming, NTFP-seeker)
  - Elders Committee: Mr. Sy houng (75, Primary school year 2, Village chief, Farming, NTFP-seeker)
  - Woman Union: Ms. Mei (45, Primary school year 2, Civilian, Farming, NTFP-seeker)
  - Youth: Mr. Kheng (28, Primary school year 2, Civilian, Farming, NTFP-seeker)

- **Village Thalang**
  - Village chief: Mr Sangka Phimmasone (41, Primary school year 3, Provincial security, Farming, NTFP-seeker)
  - 1st deputy: Mr. Don Syharath (44, Primary school year 5, Hinboun security, Farming, NTFP-seeker)
  - 2nd deputy: Ms. Noy Phothong (25, Primary school year 4, Civilian, Farming, Trade)
  - Elders Committee: Mr. Siengpa Sithabangna (52, Secondary school, Year 3, Teacher, Farming, NTFP-seeker)
  - Woman Union: Ms. Choy Saiyavongsa (28, Primary school year 3, Civilian, Farming, NTFP-seeker)
  - Youth: Mr. Meisy Khamphila (28, Primary school year 3, Civilian, Farming, NTFP-seeker)

- **Village Nongbouakham**
  - Village chief: Mr Pin Khuilasith (36, Primary school year 5, Teacher, Farming, NTFP-seeker)
  - 1st deputy: Mr. Vanhsay Kommasai (38, Secondary school year 3, Teacher, Farming, NTFP-seeker)
  - 2nd deputy: Mr. Bounhath (30, Primary school year 5, Livestock keeper at Laksao, Farming, NTFP-seeker)
  - Elders Committee: Mr Sanamsai (65, Primary school year 5, Soldier, Farming, NTFP-seeker)
### Chapter 6: Organizational Framework and Responsibilities

#### Village: Nam Nian

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<thead>
<tr>
<th>Position</th>
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#### Village: Phongsavang

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## Chapter 6: Organizational Framework and Responsibilities

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CHAPTER 7
CAPACITY BUILDING AND STAFF TRAINING
(LIVELIHOODS)

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Chapter 7: Capacity Building and Staff Training (Livelihoods)

In this chapter the various interventions for strengthening local institutions to adapt to the proposed development initiatives are described, with a focus on staff required for livelihood development. The activities include strengthening of facilities and the training of staff of key institutions that will be needed to implement the SDP such as the Resettlement Management Unit (RMU), District Resettlement Working Groups (DRWGs) and other government officials from within the provincial to district level administrations.

The issue of GoLs institutional capacity weakness, due to lack of capable manpower and resources is recognised by both the GoL and the IFI's. However, in the context of project implementation it is now clear that:

i. relocation logistics and construction issues are the primary responsibility of NTPC and there is adequate consultant and personnel to hire as needed;

ii. resettlement planning is the joint responsibility of the NTPC and the RMU, and NTPC does and will continue to engage experts as required;

iii. financial and procurement is the primary responsibility of NTPC and adequate consultants and personnel can be hired as needed;

iv. participation and consultation is the responsibility of the RMU, and its recent staffing and work in this sector suggest that it can adequately carry out these functions, especially with NTPC support; and.

v. the technical support function required at the District level is considered to be the main weakness.

7.1 CAPACITY

Capacity, and capacity building, relates to two general issues;

(a) human resource capacity - staffing requirements and training; and

(b) physical and logistical capacity

7.1.1 Staffing Assumptions

A comparison of the current compared to the future (although temporary) requirement for staff working with the Nakai DAFO is presented in Table 7-1 below. The full details for all districts of Khammouane Province are presented in Annex 7-3. These numbers of staff required are based on the assumption that NTPC provides considerable TA, as detailed in Chapter 6. However, it should be noted that of current staff in Nakai District, no more than half would or could be seconded full time to work with the NT2 Project.

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<th>DAFO Unit</th>
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<th>Required staff</th>
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<tr>
<td>Cropping</td>
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<tr>
<td>Livestock &amp; fishery</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Forestry</td>
<td>10</td>
<td>3</td>
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<tr>
<td>Community Development</td>
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</table>

Obviously, a considerable number of more staff will have to be either recruited or seconded to address livelihoods extension over the five year construction and resettlement period. On the assumption the inter-District secondment will be limited, the current GoL shortfall will be overcome largely by the recruitment of recent graduates from University or similar institutions.

It is important to note however, the build up in staff levels will be gradual, not all at Financial Close. As discussed in Chapters 6, and then 21 to 23 and 25, the main staff requirements during early transition will relate to extension on wet season upland agriculture, irrigated agriculture for three villages, livestock and

---

1 approximately only half of the current staff will be available for full time work on the NT2 project.
forestry. To ensure the timely recruitment, it may be necessary for NTPC to employ the designated personnel on behalf of GoL, as an interim measure to overcome any delays in civil service recruitment procedures.

For the XBF and Project Lands, the main requirement for staff is again for livelihood or extension development staff, working in the District Resettlement Working Groups (DRWG’s). The project requirements for GOL personnel are set out in Chapter 6. The required staff for each District will normally be 6 with 7 required for Khamkerd and 9 for Mahaxai District. For the six Districts Working Groups the total overall requirement will be 39 staff. In the first year 12 staff will be required for three Districts. In the second year 11 staff will be required. In the third year 6 will be required. Subsequently the full staff complement will grow to 33 over the six Districts as 6 positions end after 2 ½ years.

Consequently total GOL staff required for Nakai, the XBF and Project Lands totals about 98 staff, either seconded or recruited, made up of 21 RMU, 38 (Nakai) and 39 for XBF and Project Lands. At present, the RMU has already recruited 9 staff and there are 12 already seconded from Nakai District permanently, and regular secondments from the other districts on an as needs basis.

7.1.2 Physical - Logistical Capacity

The Nakai DAFO is critically short of equipment and the NT2 Project will supply the necessary equipment as well as improved mobility to enable the staff to work on the plateau more effectively. The DAFO building, although relatively recently constructed, does not have sufficient space to accommodate the additional staff who will be assigned to work on the plateau, and also has no training facilities and very little accommodation for staff. The Project will provide funds for an expansion of the present building to provide at least 8 additional offices, a small laboratory facility, a training hall and library and improvements to the existing staff house.

In addition, office equipment will be provided comprising basic office furniture including office tables, chairs, filing cabinets and bookcases together with additional furnishings for the Training Hall. Computers, photocopier and telecommunications will be installed and the laboratory will be provided with basic equipment and glassware and cold storage. The laboratory will be used for soil testing, the performance of simple germination testing of seed samples, examination of the plant samples for pest and disease attack. It can also be used for the analysis of faecal samples for buffalo and cattle.

The mobility of the staff will be improved by the purchase of a total of 4WD vehicles and motorcycles. A full schedule of buildings and equipment to be constructed or purchased is presented in the detailed program budgets, which are summarised in Chapter 27.

7.2 Training Objectives

The objective of these interventions is to enhance the capacity within the GoL to improve their planning processes, their ability to manage the resettlement process and in the longer term to improve service delivery to all the resettled villagers and those affected by downstream impacts. An improved capacity for resettlement will also benefit future development projects in Lao PDR where there has been little institutional experience in managing resettlement on past projects.

It is considered that if the interim employment by NTPC is implemented, adequate training for an average of 16 staff per year over the five years is achievable within NTPC’s training budget with additional support in Technical Assistance from the ADB for its Capacity Building and Training Support Stage 2 project.

7.3 Previous Training Activities

There have already been some preliminary training activities conducted:

- In late January 1997 a two day workshop was conducted in Thakhek with 20 participants including concerned institutions, from provincial and district level, as well as NTEC resettlement staff and private consultants. The objective of the workshop was to the participants to acquire an understanding of the processes, procedures, and principles required to implement and monitor the
RAP. The workshop also included a needs assessment for further the identification of further training.

- In April 1997, a two day workshop with 25 participants was conducted in Thakhek on Participative and Consultative Procedures for staff from DRWGs. This training included a four-day village reconnaissance to apply the techniques learned during which the participants also conducted consultation sessions in the villages. Many of the participants had already received this type of training, but this was the first opportunity to apply it in practice.

- In May 1997 a study tour for the RMU was conducted to two reservoir resettlement projects in China which improved the understanding of the universal nature of the challenges faced in resettlement.

- In April 1998 a two day workshop was held in Thakhek for members of the PCPP team, to prepare them for the second round of village consultations. The aim was to review the experiences from earlier PCPP work and to prepare material from the Draft RAP for village discussion.

- In 2002, the RMU and the RO undertook a study tour to review the resettlement process and other issues related to the Houay Ho Hydropower project, in southern Lao.

- In August 2003 a one day consultation took place with the staff of the DAFO in Nakai to identify their training and equipment needs as well as defining the needs for additional staffing to directly support agricultural extension activities.

### 7.4 Assessment of Staff Training Needs

During the resettlement process the RMU and DRWGs will play important roles. In order to strengthen their institutional capacity, a training program will be needed for the staff. The staff deployed in RMU will largely comprise staff detailed from provincial offices and training will be needed in order to develop:

- A clear understanding of the resettlement policies for NT2 and the entitlements of the affected people.
- Knowledge of steps and skills required in developing and implementing the RAP and the resettlement regulations.
- The basic capacity to organize DRWGs, and VRCs to carry out the resettlement implementation activities.
- The management skills for allocating resettlement tasks and funds, and carrying out effective supervision and monitoring.

At present the institutional capacity at the district level in Lao PDR is constrained by a combination of limited physical resources, manpower and skills. However, as the main actors in supporting the resettlement, the districts will be directly responsible for the conduct of the detailed implementation activities in the affected villages. Thus, it will be essential to carry out a training and capacity building programme to ensure the success of the resettlement programme as a whole.

The formulation of the technical training program should be based upon a Training Needs Assessment (TNA) conducted once the first batch of AEWs, LEWs and VIAs has been recruited. This should provide a broad indication of the technical training needs that relate to the proposed crop and livestock development programs that are to be supported for the resettled households. A brief TNA was conducted in August 2003 for all existing staff of the DAFO (see Table 7-1).
Three approaches are proposed in order to achieve a level of institutional capacity that can support the tasks that will be required of the government staff seconded to work on the project. Notice that the focus is more on technical training rather than methodological.

Training Workshops will focus on the resettlement policies and regulations for NT2 and the process of resettlement planning. The Policy Workshops, some of which have already taken place, will focus on the further development of the detailed resettlement policies and regulations for NT2, and also the process of resettlement planning.

Study Tours will be conducted that focus on visiting locations where resettlement is in various stages in both China and Thailand. The aim will be to enable staff and government officials to develop an understanding of the resettlement policy issues and the aims of the implementation strategy of the Nakai RAP, and the XBF and Project Lands Framework.

Technical Training Capacity building activities through the support of the NTPC/RO. TAs and external trainers working together with government staff to enhance their skills during key periods of the implementation schedule by putting ideas into practice through an on-the-job training programme. This applies especially to developing the skills for facilitating the PCPP activities.

### 7.5 TRAINING WORKSHOPS FOR PROJECT STAFF

A series of workshops for project orientation will be conducted through which most district and village officials will acquire a clear understanding of the NT2 Resettlement Policy objectives, the detailed resettlement program and well-defined resettlement entitlements, and to develop the skills of the RMU and DRWG staff further. During the initial workshop conducted in 1997 feedback was obtained on the most important training needs and these have been used in the development of the proposed training program (see Table 7-2).

The initial training workshops which comprise orientations followed by skills development in management and finance and accounting are targeted at the staff of the RMU and NTPC/RO staff together with the DRWG managers (see Table 7-3 and Table 7-4). Then training will be targeted at the relevant DRWG staff and will take place over the 18 month period post-FC. This training will have to be conducted in each district in the case of Orientation Workshops and then through batches of relevant staff from each of the DRWGs in the case of the other workshops in order to ensure that the numbers of participants at individual workshops does not exceed 20.

Initial training workshops will be targeted at the staff of the RMU and NTPC/RO and they will in turn be responsible for some aspects of training to the DRWG staff. This basic approach of training the trainers

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### Table 7-1: Summary of Nakai District DAFO Staff Self-Assessment of Training Needs

<table>
<thead>
<tr>
<th>Technical Training</th>
<th>Methodological Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Priority</strong></td>
<td><strong>Lower Priority</strong></td>
</tr>
<tr>
<td>• Agro-forestry</td>
<td>• Seed Production</td>
</tr>
<tr>
<td>• Soil &amp; Water</td>
<td>• Technology</td>
</tr>
<tr>
<td>Conservation</td>
<td>• IPM/Farmer Field</td>
</tr>
<tr>
<td>• Composting and</td>
<td>• Schools</td>
</tr>
<tr>
<td>Organic Fertiliser</td>
<td>• Livestock Husbandry</td>
</tr>
<tr>
<td>Production</td>
<td>• Animal Health Care</td>
</tr>
<tr>
<td>• Irrigated Upland</td>
<td>• Forage Production</td>
</tr>
<tr>
<td>Crop Production</td>
<td></td>
</tr>
<tr>
<td>• Plant Propagation</td>
<td></td>
</tr>
<tr>
<td>and Nursery</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>• Post Harvest</td>
<td></td>
</tr>
<tr>
<td>Technologies for</td>
<td></td>
</tr>
<tr>
<td>Fruit &amp; Vegetables</td>
<td></td>
</tr>
<tr>
<td><strong>High Priority</strong></td>
<td><strong>Lower Priority</strong></td>
</tr>
<tr>
<td>• Extension</td>
<td>• Extension</td>
</tr>
<tr>
<td>• Methodologies</td>
<td>• Methodologies</td>
</tr>
<tr>
<td>• On farm trials</td>
<td>• Demonstrations</td>
</tr>
<tr>
<td>and demonstrations</td>
<td></td>
</tr>
<tr>
<td>• Community</td>
<td>• Organising</td>
</tr>
<tr>
<td>Organising</td>
<td>• Monitoring &amp;</td>
</tr>
<tr>
<td>• Monitoring &amp;</td>
<td>• Evaluation</td>
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<tr>
<td>Evaluation</td>
<td></td>
</tr>
<tr>
<td>• Computer Literacy</td>
<td></td>
</tr>
<tr>
<td>• English Language</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td></td>
</tr>
</tbody>
</table>

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2 Details of the results of the TNA are a summary of previous trainings attended are presented in Annex 7-1 and Annex 7-2, respectively.
has the objective of all seconded and at least DRWG’s personnel understanding the structure and organisation of the project and the required procedures for resettlement planning, relocation of villages and livelihood extension activities.

Table 7-2: Overview of Training Activities for Resettlement Staff

<table>
<thead>
<tr>
<th>Training</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DRWG managers</td>
</tr>
<tr>
<td>Management Skills Development Training (1)</td>
<td></td>
</tr>
<tr>
<td>Finance and Accounting Training (1)</td>
<td></td>
</tr>
<tr>
<td>English Language Proficiency Training (18)</td>
<td></td>
</tr>
<tr>
<td>Community Participation Workshops (3)</td>
<td></td>
</tr>
<tr>
<td>Monitoring &amp; MIS Training (1)</td>
<td></td>
</tr>
<tr>
<td>Computer Literacy Training (12)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Number in parenthesis indicate the number of workshop/trainings
Table 7-3: Orientation Workshops – For DRWG’s

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation Workshops (1)</td>
<td>To familiarise all staff of the Project with the contents and issues of the RAP to ensure efficient and effective implementation</td>
<td>DWRG Managers, RC members, RMU staff, NTPC/RO staff</td>
<td>National govt and Project staff and consultants who were involved in drafting RAP and are familiar with WB policy.</td>
<td>(i) Project features and impacts; (ii) RAP in context of national and regional development; (iii) Planning in terms of socio-economic status, natural resource use, livelihoods and social services; (iv) Organisational framework and roles and responsibilities; (v) Criteria for site selection; (vi) Key aspects of livelihood model and forest development; (vii) Overview of social services and infrastructure improvements.</td>
</tr>
</tbody>
</table>

| District Workshops (7) | To familiarise district level staff with the contents and issues of the RAP to ensure efficient and effective implementation | All DRWG staff, VRC Representatives | RMU and NTPC/RO staff | (i) Project features and impacts; (ii) Planning in terms of socio-economic status, natural resource use, livelihoods and social services; (iii) Organisational framework and roles and responsibilities; (iv) Criteria for site selection; (v) Key aspects of livelihood model and forest development; (vi) Overview of social services and infrastructure improvements. | Monitoring of the implementation of the RAP by the RMU will also provide a clear indication of the level of understanding of the process by the DRWG staff and the need for further training and orientation. |

| Social Issues Workshops | Familiarizing government staff with all the key social issues, ethnic awareness, mitigation measures and monitoring concerns. | DRWG Managers and staff, VRC representatives, RC members, RMU staff, NTPC/RO staff | Social experts (local consultants or NGOs) specializing in rural development, health, education and community development concerns in order to enhance government knowledge capacity of the resettlement staff. | (i) Overview of social concerns in the NT2 Project and RAP recommended approaches; (ii) Health concerns, overview of regional challenges, completed initiatives, planned mitigation measures and monitoring; (iii) Education concerns, overview of regional challenges, completed initiatives, planned mitigation measures and monitoring; (iv) Gender sensitive approaches and monitoring; (v) Community development strategies; and (vi) Identification of NGO involvement and possible roles to supplement government capacity | Social concerns for the resettlement are wide ranging and specific workshops may need to be devised. Monitoring of health, education and other aspects will be ongoing and regular appraisals of social aspects by the NTPC staff and social experts and evaluators will determine whether more workshops or the degree of on-the-job training that is needed to meet project objectives. |
### Table 7-4: Management, Administrative and Financial Training for RMU staff, DRWG Managers and staff, VRCs, RC members, and NTPC/RO staff.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management Skills Development Training</strong></td>
<td></td>
<td></td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>To improve management skills for enhanced implementation of resettlement related activities</td>
<td>DRWG Managers, RC members, RMU staff, NTPC/RO staff</td>
<td>Local Management Consultant</td>
<td>Basic skills including (i) organisational management; (ii) scheduling and work planning; (iii) availability of information and co-operation; (iv) Team management; and (v) Reporting</td>
<td>During start up phase of the RAP, NTPC will interact closely with RMU and other GOL agencies. RO will be responsible for monitoring RMU management performance and identifying further training support to ensure acceptable management skills.</td>
</tr>
<tr>
<td><strong>Finance and Accounting Training</strong></td>
<td></td>
<td></td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>To improve finance and accounting skills of those managing resettlement and development activities so that proper records of expenditure and budget control are maintained for maximum accountability.</td>
<td>DRWG Managers, RMU and NTPC/RO staff (accountable for financial matters)</td>
<td>Local TAs and Project staff who have experience of working on large infrastructure projects in Lao.</td>
<td>Strengthening basic accounting and accounting skills in conjunction with computer literacy and the use of Excel. Developing skills in (i) budget layout and schedules; (ii) record keeping for disbursements; (iii) methods of establishing accountability; and (iv) contract arrangements.</td>
<td>RM of NTPC/RO will interact with the RFMU and other GOL agencies regarding financial issues and records of expenditure. RM will be responsible for monitoring these aspects through discussions and an examination of the records, and to assess whether any follow-up activities are necessary to achieve an acceptable level of accounting skills.</td>
</tr>
<tr>
<td><strong>English Language Proficiency Training</strong></td>
<td></td>
<td></td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>English language capability is limited amongst district and provincial staff and on-going training will be provided to develop basic English language skills</td>
<td>DRWG Managers and staff, RMU staff</td>
<td>Enrolment in existing local English Language classes together with hire of language trainers</td>
<td>Training will focus on initially developing basic skills in spoken English followed by increased writing and reading ability.</td>
<td>This will be an on-going training activity over at least a bare year period to provide ample opportunity for hired and seconded staff to have the opportunity to develop their language skills.</td>
</tr>
<tr>
<td><strong>Community Participation Workshops</strong></td>
<td></td>
<td></td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>To ensure that the Public Consultation and Participation Process is internalized and that consultation teams receive additional training and knowledge about methods, reporting and culturally sensitive techniques.</td>
<td>DRWG Managers and staff, VRC representatives, RC members, RMU staff, NTPC/RO staff</td>
<td>PCPP Advisor hired to conduct the training and provide additional support during the detailed planning in Pilot Village</td>
<td>(i) Review of consultation approaches, advantages and disadvantages of methodologies; (ii) ‘Informed’ consultations within the framework of the NT2 Project; (iii) Analysis of consultations and input into decision-making processes; (iv) Improvements in communication and culturally sensitive approaches with ethnic minorities.</td>
<td>Consultation is ongoing and a number of government staff, including those in RMU and LWU are already familiar with main aspects. The consultation process is central to the resettlement and integrated into the RAP. Follow-up on the consultation process will be continuous and review of the effectiveness of the consultations by the PCPP Advisor will identify further training needs.</td>
</tr>
<tr>
<td><strong>Monitoring and MIS Training</strong></td>
<td></td>
<td></td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>To ensure that internal monitoring and MIS are well designed and utilised efficiently, documentation regularly updated and problems in implementation can be addressed promptly.</td>
<td>DRWG staff, RC members, RMU staff</td>
<td>RM with input from monitoring specialists and trained govt staff</td>
<td>(i) Overview of monitoring needs and req'ment for M&amp;E; (ii) use of monitoring indicators; (iii) Monitoring methods and techniques; (iv) preparation of data and MIS outlines; (v) detection of problems, verification of data quality and analysis of findings; (vi) organisational aspects.</td>
<td>Regular monitoring reports will be evaluated by the RM and the NTPC, the quality of M&amp;E will be constantly under scrutiny. If reports from governments agencies are not adequate for Project management further workshops and on-the-job training will be needed.</td>
</tr>
<tr>
<td><strong>Computer Literacy Training</strong></td>
<td></td>
<td></td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Provision of computers to DRWG’s will necessitate training to develop computer literacy and for selected staff advanced training on computer appls.</td>
<td>DRWG Managers and staff, RMU staff, NTPC/RO staff</td>
<td>Enrolment in local computer schools and hire of trainers to provide direct hands-on-training</td>
<td>After initial training on basic operation of computer the focus should be on hands on training supported by trainers who provide regular training support over a period of two years.</td>
<td>Staff that show interest in developing computer skills further could be selected for further training in formal computer schools. The aim should be to have at least two well trained personnel in each DRWG.</td>
</tr>
</tbody>
</table>
7.6 **TECHNICAL TRAINING PROGRAMS AGRICULTURE AND LIVESTOCK**

In order to enable the field extension staff, who are hired to work in the VEOs, to provide effective support to the resettled households there will be a need for substantial technical training support. The task of providing this training and subsequent technical assistance in the field will be the responsibility of the Subject Matter Coordinators who are assigned from the PAFO to the RMU supported by local TAs who are hired by the NTPC/RO.

The Technical Training of the DRWG staff will be largely conducted through practical learning in the field rather than through classroom teaching. This is the main justification for deploying a substantial corps of technical specialists in the RMU as well as the NTPC/RO. Much of the training will be done in the field. It is assumed that there will be no immediate need for technical training support for the seconded provincial staff but they will be enabled to join Cross Visits within the province or Study Tours to other provinces or countries.

A technical training program will be funded for the contractual staff approximately half of whom are expected to be new graduates. The training program may also encompass existing staff from the DAFO based upon the needs identified from the TNA. No formal technical training will be provided for the SMSs but they will be enabled to participate in cross visits to other sites that may be organised for farmers and field extension workers.

The proposed technical training in support of Agricultural and Livestock Development will comprise the follow training activities:

- **Facilitation Skills for Participatory Extension Approaches** - To develop the skills of the DRWG extension staff and RMU SMSs to enable them to promote farmer-led extension methodologies.
- **Organisation of on-farm trials and demonstrations** - To develop the skills of the extension staff in planning, organising and managing a program of on-farm trials and demonstrations focussing on upland crops and irrigated paddy production.
- **Technical Training on Paddy Production** - To equip the extension staff on Nakai plateau with enhanced knowledge of irrigated paddy production including improved production technology.
- **Integrated Upland Farming Systems** - Basic introduction to upland cropping based upon the WFSs emphasising the integration of crop, livestock and fisheries production.
- **Technical Skills Development** (based upon TNAs) - A range of additional technical training will be provided based upon the results of the TNAs.
- **Trainers Training for Farmer Field Schools** - To enable the RMU SMSs and the district extension staff to improve their knowledge of FFS approaches and to develop modules for the main upland crops that feature in the WFSs.
- **Livestock Disease Diagnosis** - To improve the disease diagnosis capability of the LEWs to enable them to provide support to the VLAs who are trained to work in each village.
- **Marketing Assistance** - Basic training in marketing strategies that can be applied to the situation in Nakai to assist resettled villagers in finding markets for their products.

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3 See Table 7-5 for detailed listing of Agriculture and Livestock Staff Training Program.
### Table 7-5: Technical Training on Agriculture and Livestock for RMU and DRWG staff

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitation Skills for Participatory Extension Approaches</td>
<td>AEWs / LEWs / VlAs DRWG, Managers RMU staff</td>
<td>NTCP/RO international and local TAs</td>
<td>(i) Introduction to participatory approaches and the concept of farmer led extension methodologies; (ii) Identification of farmers leaders; (iii) Communication and facilitation skills development; (iv) Farmer involvement in monitoring technology adoption rates.</td>
<td>Extension staff will be required to work in close collaboration with farmers in the formulation and implementation of the extension program. The feedback from the farmers and the accomplishment each year will provide indicators of the success of the approach and the need for further training.</td>
</tr>
<tr>
<td>Organisation of on-farm trials</td>
<td>AEWs / RMU staff</td>
<td>NTCP/RO international and local TAs</td>
<td>(i) Basic principles of on-farm trials including selection of site and design of layouts; (ii) Procedures for calculation of inputs requirements; (iii) The field establishment of on-farm trials; (iv) Conduct of field days and yield sampling at harvest; (v) Simple analytical techniques for on-farm trial data; (vi) Reporting results.</td>
<td>Much of the training will be through on-the-job training provided by trainers in collaboration with the RMU staff to the field extension workers. The progress of the on-farm trials program during the first year will provide an indication of the need for further training.</td>
</tr>
<tr>
<td>Technical Training on Paddy production</td>
<td>AEWs</td>
<td>RMU staff NTCP/RO international and local TAs</td>
<td>(i) Paddy seed selection and variety suitability; (ii) Land suitability and soil preparation; (iii) Balanced Fertilisation Strategies; (iv) Integrated Pest Management for Paddy rice; (v) Post-harvest practices.</td>
<td>Technical skills will be developed through the practical experience of working with farmers in promoting irrigated paddy production. Further training needs should be addressed simply through additional practical on-the-job training by the RMU staff.</td>
</tr>
<tr>
<td>Integrated Upland Farming Systems</td>
<td>AEWs / LEWs / VlAs</td>
<td>RMU staff NTCP/RO international and local TAs</td>
<td>(i) Description of whole farm scenarios and calculation of labour profiles; (ii) Choice of suitable varieties; (iii) Soil management and cultural practices on the terraced farm lots; (iv) Use of compost and organic fertiliser materials; (v) Post harvest practices.</td>
<td>Technical skills will be developed through the practical experience of working with farmers in promoting integrated upland farming systems. Further training needs should be addressed simply through additional practical on-the-job training by the RMU staff.</td>
</tr>
<tr>
<td>Technical Skills Development Training (based upon TNAs)</td>
<td>AEWs / LEWs / VlAs</td>
<td>RMU staff NTCP/RO international and local TAs</td>
<td>Course content will be dependent on the technical subject matter, but there will continue to a focus on practical hands-on training.</td>
<td>Technical skills will be developed through the practical experience of working with farmers in promoting improved production technologies. Further training needs should be addressed simply through additional practical on-the-job training by the RMU staff.</td>
</tr>
<tr>
<td>Trainers Training for Farmer Field Schools</td>
<td>RMU staff AEWs / LEWs</td>
<td>National IPM experts NTCP/RO international and local TAs</td>
<td>(i) Basic principles of FFS as applied to paddy rice; (ii) Modifications of the approach for use in upland crop based farming systems; (iii) Facilitation skills for extension staff; (iv) Training of farmers as FFS leaders.</td>
<td>Application of the FSS approach to the upland crops using new modules that are appropriate for these crops will necessarily require preliminary testing in the field. Furthermore developing skills to manage FFSs can only be gained by hands-on training.</td>
</tr>
</tbody>
</table>

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Chapter 7: Capacity Building and Staff Training (Livelihoods)

### Livestock Disease Diagnosis

**Objective**
will include the development of appropriate FFS modules for upland cropping.

**Target Group**
LEWs

**Expert Input**
National Veterinary experts (EU project), NTPC/RO international and local TAs

**Training Content**
(i) Symptoms of the most significant diseases of the main livestock types; (ii) Disease treatment including vaccination and drug administration; (iii) Procedures for monitoring disease incidence; (iv) Criteria for the selection of VLAs; (v) Provision of support to a VLA network.

**Follow Up**
Project should identify resources persons from EU Project that is strengthening veterinary services in Lao and make use of the training materials that have been developed for VLAs. Extent of support provided to VLAs will be a reflection of the adequacy of the training provided and the need for further training support.

### Marketing Assistance

**Objective**
Basic training in marketing strategies that can be applied to the situation in Nakai to assist resettled villagers in finding markets for their products.

**Target Group**
AEWs/LEWs, RMU staff, National experts from MAF, and selected traders assisted by NTPC/RO international and local TAs

**Expert Input**
AEWs/LEWs, RMU staff, National experts from MAF, and selected traders assisted by NTPC/RO international and local TAs

**Training Content**
(i) Review of existing marketing linkages from Nakai to main urban centres and identification of weaknesses; (ii) Main marketing opportunities within the proposed whole farm scenarios; (iii) Strategies for promoting products from Nakai; (iv) Establishment of market information systems.

**Follow Up**
Strengthening the market linkages for the resettled villages to enable them to sell their surplus produce will be essential. The success of the efforts to improve marketing will be apparent from the effectiveness of the market linkages that are promoted. Training will be supplemented by the conduct of Market For a to invite traders to visit Nakai.

#### 7.7 TECHNICAL TRAINING ON FISHERIES

In the case of Fisheries a training program on technical issues as well as community development will be supported:

- **Reservoir Fisheries and Fish Biology** - To provide district staff with some basic knowledge on the hydrology and ecology of reservoirs and an overview on aquatic-biodata.

- **Catch Monitoring and Applied Fisheries** - To develop the skills of the district staff to monitor fish catches in order to verify the magnitude of the livelihood derived from fisheries and the sustainability of the reservoir fish population.

- **Fish Disease Identification and Control** - To develop further the skills of the district staff in the identification of fish diseases.

- **Surveillance, Patrolling and Enforcement** - To provide training on law enforcement to the appropriate authorities in the aquatic environment to supplement previous training provided for terrestrial activities.

- **Community Development and Participatory Approaches** - To train district fisheries staff in the basis of community development to enable them to identify village fisher leaders who can be trained to manage the fisher groups in each village.

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4 See Table 7-6 for detailed listing of Fisheries Technical Staff Training.
### Table 7-6: Technical Training on Fisheries for RMU and DRWG staff

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservoir Fisheries and Fish Biology</td>
<td>DRWG and RMU Fisheries staff</td>
<td>International TA supported by NTPC/RO local TAs</td>
<td>(i) Hydrology and ecology of reservoir and overview on aquatic-biodata; (ii) The Ichthyology of endemic fish; (iii) Ecological requirements of local fish; (iv) fish reproduction and nursing grounds; (v) introduction of exotic species; (vi) Observation and reporting of fish diseases and algal bloom.</td>
<td>DRWG Fisheries staff will apply their knowledge and make use of a field identification manual that will be presented during the course. The need for follow up will be identified through the quality of the reports that they produce on the status of the reservoir fisheries.</td>
</tr>
</tbody>
</table>

#### Catch Monitoring and Applied Fisheries Research

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing the skills of the DRWG Fisheries staff to monitor fish catches in order to verify the magnitude of the livelihood derived from fisheries and the sustainability of the reservoir fish population</td>
<td>DRWG and RMU Fisheries staff</td>
<td>International TA supported by NTPC/RO local TAs</td>
<td>(i) Fishing methods in reservoir; (ii) Stock development in the reservoir; (iii) Rationale of catch assessment, field survey and measuring techniques; (iv) Methodologies of catch assessment, data collection, compilation and analysis.</td>
<td>Level of skills will be measured through the quality of the reports produced by the DRWG Fisheries staff on the fish catches and the projected fish populations. Additional training needs will be identified through assessment of the data quality produced.</td>
</tr>
</tbody>
</table>

#### Fish Disease Identification and Control

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of further skills in the identification of fish diseases targeting RMU Fisheries staff and selected DRWG staff</td>
<td>RMU Fisheries staff and selected DRWG Fisheries staff</td>
<td>International TA supported by NTPC/RO local TAs</td>
<td>(i) Fish food consumption and safety requirements; (ii) Fish spoil and consumption risks; (iii) Fish diseases encountered in indigenous fish species; (iv) Treatment of fish diseases in culture ponds; (v) Fish disease control and mitigation measures in reservoir; (vi) Fish disease survey methods and data collection.</td>
<td>Further training may be required for RMU seconded staff but should be targeted at those that show interest in further development of disease identification skills.</td>
</tr>
</tbody>
</table>

#### Surveillance, Patrolling and Enforcement

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing training on law enforcement in the aquatic environment to supplement previous trainings provided for terrestrial activities</td>
<td>Law Enforcement Units (Police) and Village Militia, together with selected RMU Fisheries staff</td>
<td>International TA supported by NTPC/RO local TAs and local experts on Aquatic Law Enforcement</td>
<td>(i) Rationale for fisheries regulations and enforcement; (ii) zonation of the reservoir; (iii) Fisheries surveillance methods and practical requirements; (iv) risk awareness and mitigation in reservoir patrolling; (v) conflict resolution; (vi) control of fishing licences and boat registration permits; (vii) methods of inspection of fishing gear.</td>
<td>Effective control of the fishery resources will ensure the long term sustainability of the livelihoods of the resettled villagers. Law enforcement agencies will be required to provide regular monitoring reports to the RMU and this will determine the level of capability and the need for additional training.</td>
</tr>
</tbody>
</table>

#### Community Development for Fisher Groups

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target Group</th>
<th>Expert Input</th>
<th>Training Content</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training of DRWG fisheries staff in the basics of community development to enable them to identify village fisher leaders who can be trained to manage the fisher groups in each village</td>
<td>DRWG Fisheries Extension staff</td>
<td>NTPC/RO local TA assisted by RMU staff</td>
<td>(i) Principles of participatory consultation and communication; (ii) Background on co-management concepts for reservoir management; (iii) Facilitation of fisher group formation; (iv) Criteria for selection of fisher leaders; (v) Rights and entitlements of fisher groups; (vi) Tasks of fish group leaders; (vii) Leadership skills development; (viii) Conflict resolution; (ix) Awareness raising and gender sensitivity.</td>
<td>DRWG Fisheries Extension staff will be tasked with the identification of leaders and facilitating the formation of fisher groups in each village. The need for further training will be apparent from the progress that they make with this task.</td>
</tr>
</tbody>
</table>
7.8 Technical Training on Forestry

Implementation of the Nakai Plateau Village Forestry Program will require building up of capacity of both forestry staff (Nakai District Forestry Unit staff and NTEC forestry staff) and villagers (VFC officers and work team members). The following illustrates how capacity building will be done through training and immediate application of knowledge and skills obtained from training.

Training approach
A multi-stage, modular, learning-by-doing training system, which had been extensively applied in providing over 12,000 person-days of training of provincial and district staff and villagers by FOMACOP, will be adapted in training staff and villagers at the Nakai Plateau. Training will be multi-stage involving training of staff followed by training of villagers. Training will be modular, and knowledge and skills learned for a given module will be immediately applied in actual practice by villagers under staff supervision (learning-by-doing) before another module is learned.

Training will consist of the following three stages:

Stage 1 – Training of district forestry staff
Held at the Nakai District Forestry Headquarters.
A participatory forestry expert conducts the training assisted by NTEC staff during organizing and conducting.
Selected Nakai District forestry staff members are the participants.
The entire set of topics for capacity building is introduced subset-by-subset in successive training sessions. A subset of topics covers 1-3 modules.
Field application of a subset is done before training moves to the next subset. In this way learning is reinforced by immediate practice.
Modules are selected for a particular training session such that they can be covered in 4-5 training-days (for example: a module on forest inventory + a module on VFC organizing).

Stage 2 – Training of village teams
Training is conducted in the villages, or villagers are asked to go to Nakai District Forestry Headquarters for training. If conducted in the villages, training is first organized at a lead village as a practicum for the training of district forestry staff.
Nakai District forestry staff conducts the training assisted by NTEC staff during organizing and conducting. The participatory forestry expert supervises the training at the lead village.
Village teams are the participants. A team may be a VFC or a forestry work team (e.g. forest inventory team).
The same topics as in Stage 1 are covered but simplified (e.g. more techniques/procedures, less concepts), so that villagers could absorb the lessons well, and addressed to the appropriate team (e.g. VFC for administrative topics, forestry work team for forestry work topics).

Stage 3 - Application in actual operations by the village teams
Lessons learned in Stage 2 are immediately applied by the village teams under forestry staff supervision for the first day or two.
After the forestry staff trainers leave the village, the village teams continue the work by themselves. For example, the VFC conducts further meetings; the forest inventory teams complete the forest inventory.
At the end of the forestry operation, the village work team together with the supervising staff prepares a report for monitoring purposes.

Forestry Training topics
The following lists illustrate the topics that will be introduced during training. The list may be incomplete and will be further developed as implementation of the training program proceeds.
Chapter 7: Capacity Building and Staff Training (Livelihoods)

VFC/VFA administration
- Organizing the village for forestry administration and forestry operations
- Conducting an election of officers,
- Conducting committee meetings, and conducting village assembly meetings
- Recording minutes of meetings
- Preparing reports of meetings and forestry operations
- Budgeting, Bookkeeping, and Internal audit of financial transactions by VFC and work teams
- Simplified personnel management system
- Procurement
- Simplified inventory management
- Internal monitoring and control

Forest management, harvesting, and utilization operations
- Land-use mapping and Land-use planning
- Forest inventory for management planning, and division of the forest area into annual coupes
- High conservation value forest assessment
- Forest management system for different forest types and resources
- Long-term forest management planning
- Pre-harvest inventory, and Annual forest operational planning
- Timber scaling and grading
- Preparing for forest harvesting, and Control of forest harvesting
- Post-harvest assessment
- Forest regeneration by natural means and by tree planting, and Forest stand improvement
- Nursery and plantation operations
- Conservation of high forest values
- Forest protection from fire, man, and other agents
- Forest products utilization
- Primary, secondary, and tertiary processing of forest products

Training schedule
NTPCs staff and the Nakai District forestry officers will prepare a training schedule taking into account the seasons in the year, operational requirements, and synchronization with NT2 project development. The above topics will be combined into modules, the modules combined into subsets for introduction in a sequence of training sessions, and the training sessions scheduled in stages as indicated above so that all topics are eventually covered. This would take about three years after which training will be mainly refresher courses.

Training resources
Since training is immediately followed by application in actual practice, preparation and procurement of resources will ensure the requirements of both the training sessions and actual operations.

Training venues
The Nakai District Forestry Headquarters provide a suitable venue for the training of forestry staff, as well as for occasional training of villagers (e.g. VFC members). At the village, the village temple or a large house (usually belonging to the village chief or a VFC member) should be requested to serve as training venue.

Equipment and tools
Adequate set of equipment and tools will be provided to the staff and village teams during training. Moreover, it should be kept in mind when preparing for training that equipment and tools provided to village teams will be used further in actual operations. Mobile white boards combined as a poster stands
will be provided to each team of trainers, and visual aids for training sessions will be produced beforehand, but also during the actual conduct of the training.

********** *  *  * **********
### Annex 7-1: Summary of Training Needs Assessment -2003

<table>
<thead>
<tr>
<th>TOPICS/AREAS OF CONCERNS</th>
<th>LEVEL OF KNOWLEDGE</th>
<th>NEED FOR FURTHER TRAINING</th>
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<td><strong>I. TECHNICAL SKILLS</strong></td>
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<td>A. Irrigated Upland Crop Production</td>
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<td>B. Soil and Water Conservation</td>
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<tr>
<td>C. Plant Propagation and Nursery Management</td>
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<td>D. Seed Production Technology</td>
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<td>E. Composting and Organic Fertilizer Production</td>
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<td>11</td>
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<tr>
<td>F. Agro-Forestry</td>
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<td>18</td>
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<tr>
<td>G. Integrated Pest Management/ Farmer Field Schools</td>
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<td>H. Post-harvest technologies for fruit crops and vegetables</td>
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<tr>
<td>I. Livestock Husbandry</td>
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<td>J. Animal Health Care</td>
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<td>K. Forage Production</td>
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<td>L. Forestry</td>
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<tr>
<td><strong>II. METHODOLOGIES</strong></td>
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<td>A. Extension Methodologies</td>
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<tr>
<td>B. Establishment of on-farm trials and demonstrations</td>
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<td>C. Farm Investment Analysis</td>
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<td>D. Community Organizing</td>
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<td>E. Monitoring and Impact Evaluation</td>
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<td>F. Computer Skills</td>
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<td>G. English Language Skills</td>
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### Annex 7-2: Summary of Training Attended

<table>
<thead>
<tr>
<th>Name</th>
<th>Training Title</th>
<th>Conducted By</th>
<th>Place</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>Mr Inthasone Sysouvong</td>
<td>- Hilly Land Agricultural Technology (HALT)</td>
<td>- IBSRAM and Jica</td>
<td>- Vientiane</td>
<td>1999</td>
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<td></td>
<td>- Communication and Coordination</td>
<td>- DVDCP</td>
<td>- Thakek</td>
<td>2002</td>
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<td></td>
<td>- Analysing Village Level Needs and Cooperative Planning</td>
<td>- EDC</td>
<td>- NDSPA</td>
<td>2002</td>
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<tr>
<td></td>
<td>- Cooperative Evaluation</td>
<td>- DVDCP/DANASEA Consulting</td>
<td>- Thakek</td>
<td>2003</td>
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<tr>
<td>Ms Khonesavanh</td>
<td></td>
<td></td>
<td></td>
<td>2003</td>
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<tr>
<td></td>
<td>- Village Forest Community Organisation (including Forest Inventory and Management)</td>
<td>- NTEC II</td>
<td>- Nakai Namtheun Conservation Area</td>
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<tr>
<td>Mr Vanhmala</td>
<td>- Nakai Nam Theun National Conservation Area</td>
<td>- Mr John Backer</td>
<td>- Forest Conservation Office</td>
<td>1998</td>
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<td></td>
<td>- Conservation Promotion</td>
<td>- Mr Hoy</td>
<td>- Forest Conservation Office</td>
<td>1998</td>
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<td>- Mapping and GPS</td>
<td>- Mr Soukatha</td>
<td>- Forest Conservation Office</td>
<td>2002</td>
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<td>- Village Forest Community Organisation</td>
<td>- NTEC II</td>
<td>- Forest Conservation Office</td>
<td>2003</td>
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<td></td>
<td>- Wood Grading and Classifying</td>
<td>- DAFO</td>
<td>- DAFO</td>
<td>2002</td>
</tr>
<tr>
<td>Mr Khaophone Temsoulivanh</td>
<td>- Village Forest Community Organisation</td>
<td>- NTEC II</td>
<td>- Forest Conservation office</td>
<td>2003</td>
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<td></td>
<td>- Orchard Management</td>
<td>- Upper land project</td>
<td>- Ban Teuk's field work</td>
<td>2003</td>
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<tr>
<td>Mr Bounthavy Sengsouvannah</td>
<td>- Village Forest Community Organisation</td>
<td>- NTEC II</td>
<td>- NTEC II office</td>
<td>2003</td>
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<td></td>
<td>- Training of Trainers</td>
<td>- NTEC II</td>
<td></td>
<td>2003</td>
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<tr>
<td>Mr Chanhtthaso Syvanhpheng</td>
<td>- Communication and Coordination</td>
<td>- Upper land development and</td>
<td>- District agriculture office</td>
<td>2002</td>
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<td></td>
<td></td>
<td>conservation project</td>
<td></td>
<td></td>
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<tr>
<td>Mr Outhai Latsathanh</td>
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<td>- NTEC II</td>
<td>- Forest Conservation Office</td>
<td>2003</td>
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<td></td>
<td>- Agro-forestry</td>
<td>- School of Forestry</td>
<td>- School of Forestry</td>
<td>1999</td>
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<tr>
<td>Mr Khamsay Vilavong</td>
<td>- Forestry Tree Seeds (Grain cultivation method)</td>
<td>- PAFO</td>
<td>- Tha Khet</td>
<td>2002</td>
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<tr>
<td></td>
<td>- Forestry Tree Seeds (Grain cultivation method)</td>
<td>- PAFO</td>
<td>- Tha Khet</td>
<td>2003</td>
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<tr>
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<td>- Village Forest Community Organisation</td>
<td>- Nakai district NTEC II</td>
<td>- Nakai Num Theun conservation area</td>
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<td></td>
<td>- Wood grading</td>
<td>- PAFO</td>
<td>- Tha Khet</td>
<td>2002</td>
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<tr>
<td>Mr Khamphanh Kepaseuth</td>
<td>- Cooperative planning of utilisation of NTFPs</td>
<td>- ULDPC</td>
<td>- Forest Conservation Office</td>
<td>2002</td>
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<td></td>
<td>- Water Animal, Wildlife, Forestry Resources</td>
<td>- ULDPC</td>
<td>- Forest Conservation Office</td>
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<td>- Agriculture (cultivation)</td>
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<td>- Forest Conservation Office</td>
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<tr>
<td>Name</td>
<td>Training Title</td>
<td>Conducted By</td>
<td>Place</td>
<td>Year</td>
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<td>-----------------------</td>
<td>--------------------------------------------------------------------------------</td>
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</tbody>
</table>
| Mr Bounpone Kiyarath  | - Project Preparation  
- Communication and Coordination  
- Village Forest Community Organisation | - ULDCP  
- ULDCP  
- NTEC II | - Forest Conservation Office  
- Forest Conservation Office  
- Forest Conservation Office | 2001  
2002  
2003 |
| Mr Bouna Amphavong    | - Fruit tree  
- Agriculture (Rice seed harvest)  
- Forest and land allocation planning | - MAF  
- Lao-IRRI project  
- JBC project | - Hat Dokkeo station  
- Na Phork centre  
- PAFO | 1999  
1999  
1999 |
| Mr Bouakeo Soulivong  | - Wood grading  
- Herbs  
- Forest Survey Panning  
- Village Forestry Survey and Planning  
- Land, Forest Supervision and Utilisation  
- GPS Training | - Provincial Forestry Section  
- Timber plant No 4  
- Central Survey Office  
- NTEC II  
- JICA  
- NTEC II | - PAFO  
- Forest Conservation Office  
- Khammouane province  
- Nakai district  
- Vientiane district  
- NTEC office | 2001  
2002  
2003  
1994  
2003 |
| Mr Sene               | - Survey Training  
- Village Forestry Community Organisation  
- Forest survey | - NTEC II | - Forest Conservation Office | 2003 |
| Mr Khuvanh Latchachaek| - Training of Field Evaluation | - Prof Khamphet and Bounleung | - Thakek | 2003 |
| Ms Naly Leughchanthalat| - Training of trainees  
- The use and the supervision of the irrigation system  
- Gender role and responsibilities  
- Livestock and fishery  
- Communication and coordination  
- The production of organic water and fertilizer  
- Training of trainees | - PAFO  
- CARE  
- JCV  
- JCV  
- ULDCP  
- ULDCP  
- ULDCP | - PAFO  
- PAFO  
- PWU  
- PAFO  
- DAFO  
- DAFO  
-Nakai Plateau Resort | 1999  
1999  
2000  
2001  
2002  
2002  
2003 |
| Mr Khamvang Kylaivanh| - The use of herbs in pest control  
- Organic Fertiliser in the rice growing  
- Communication and Coordination | - Vocational School of agriculture, Phin district, Savannakhet province  
- CIDSE project  
- ULDCP | - Vocational School of agriculture, Phin district, Savannakhet province  
- Agro-forestry office  
- Nakai District | 2000  
2000  
2002 |
| Mr Bouala Singvongphachanh | - Communication and Coordination  
- Survey of NTFPs | - ULDCP  
- ULDCP | - DAFO  
- Forest Conservation Office | 2002  
2001 |
| Mr Chomkeo Phaboliboun | - Production of Organic Fertiliser  
- Training of Trainers | - NTEC II  
- NTEC II | - Nongboua fertiliser demonstration site  
- Nakai district | 2003  
2003 |
<p>| Mr Mysai Singnavong  | - Cooperative Conservation Promotion Techniques | - Forest protection Centre | - Nakai district | 1998 |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Training Title</th>
<th>Conducted By</th>
<th>Place</th>
<th>Year</th>
</tr>
</thead>
</table>
| **Mr Fongsamouth Phommachanh** | - Communication and Coordination  
- Training of trainees  
- Wood grading  
- Production of Organic Fertiliser  
- Agriculture (RP)  
- Livestock Production and Veterinary (RP)  
- Agronomy (RP)  
- Computer Literacy | - ULDCP  
- NTEC II  
- PAFO  
- NTEC II  
- NTEC II  
- NTEC II  
- NTEC II  
- Department of Forestry | - Nakai district  
- Nakai district  
- DAFO  
- North Nakai centre  
- North Nakai centre  
- North Nakai centre  
- Department of Forestry | 2002  
2003  
2002  
2003  
2003  
2003  
1999 |
| **Mr Phannoulath Khamvipat** | - Village Community Forestry Organisation | - NTEC II | - Forest Conservation Office | 2003 |
| **Mr Bounthom Vanhnalath** | - Food for Work Project | - WFO. | - Department and Social Welfare Savannakhet province | 2001 |
| **Mr Keo Kengchais** | - Operating and maintenance of Vang Vieng Phi Irrigation Pump  
- PRA, RRA and conservation  
- water animal and wildlife conservation. | - ULDCP  
- ULDCP | - Xe Bang Fai office  
- Forest Conservation Office  
- Forest Conservation Office | 2000 |
| **MR Sacksythong Thummachack** | - Training of trainees | - NTEC II | - NTEC office, Nakai district | 2003 |
| **Mr Sysomphone Southichack** | - Wood Grading  
- Wood Survey  
- Use of GPS | - Division of Provincial forestry  
- NTEC II  
- NTEC II  
- NTEC II | - Division of Provincial Forestry  
- Forest Conservation Office  
- Forest Conservation Office  | 2003  
2003  
2003 |
| **Mr Linthong Malasy** | - Training of Trainers | - NTEC II | - NTEC II office, Nakai district | 2003 |
| **Ms Douanmala** | None | None | None | - |
| **Mr Lianphet Phetphilanone** | None | None | None | - |
| **Ms Khamkong Phakuanmany** | None | None | None | - |
| **Mr Theu ThAVISouk** | None | None | None | - |
| **Mr Keophounmin** | None | None | None | - |
| **Mr Bouaphane Saysengthong** | None | None | None | - |
| **Mr Souligna Satry** | None | None | None | - |
| **Mr Khanthaly Saiyavongsa** | None | None | None | - |
### Annex 7-3: Agricultural and Forestry Provincial Staff list, Khammouane Province 2002 - 2003

#### Division of Agriculture

<table>
<thead>
<tr>
<th>Item</th>
<th>Education</th>
<th>Level</th>
<th>Type</th>
<th>Position</th>
</tr>
</thead>
<tbody>
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<td>I. Provincial Office</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Mr Khamsing Ounkheua</td>
<td>Basic</td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Mr Khampphanh Phengthomna</td>
<td>Basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mr Banthao Banchongkiet</td>
<td>Midle</td>
<td></td>
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<tr>
<td>4</td>
<td>Mrs Thongdy Ornsaly</td>
<td>Basic</td>
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<tr>
<td>5</td>
<td>Mr Somphonh Xaygnaseng</td>
<td>Middle</td>
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</tr>
<tr>
<td>6</td>
<td>Mr Boukeuth Dalasouk</td>
<td>Advance Chief Division</td>
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<tr>
<td>7</td>
<td>Mr chanthalay Souvannalath</td>
<td>Advance</td>
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<td>8</td>
<td>Mrs Soudy Thaknouvong</td>
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<td>9</td>
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<td>Mr Phethsamay Phabolbounh</td>
<td>Advance</td>
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<td>12</td>
<td>Mr Soual Xaygnupagna</td>
<td>Middle</td>
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<td>13</td>
<td>Mrs Ammala Sengsouligna</td>
<td>Advance</td>
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<td>14</td>
<td>Mrs Horn onth stihipan</td>
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#### Division of Livestock and Fishery

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#### I. Thakhek District

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### Chapter 7: Capacity Building and Staff Training (Livelihoods)

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**Hinboun District**

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**Division of Irrigation**

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### Chapter 7: Capacity Building and Staff Training (Livelihoods)

#### Education

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**Thakhek District**

1. Mr Yongvilay Keosangvanh  
   - Basic
2. Mr Souvannajak Keochanthala  
   - Advance  
   - Deputy Chief Division
3. Mrs Bang onth Saygnasith  
   - Middle
4. Mr Souphasorn Chanthavisouk  
   - Basic
5. Mr Sengnuansy Siouvanh  
   - Advance

**Mahaxai District**

1. Mr Boungnounh Saygnalayh  
   - Advance  
   - Deputy Chief Division
2. Mr Khuntra Hornhousavong  
   - Middle

**Nongbok District**

1. Mr Khamphoumy Phommassay  
   - Advance
2. Mr Khamsen Phommalavong  
   - Advance  
   - Deputy Chief Division
3. Mr Southish Inthapangno  
   - Basic

**Hinboun District**

1. Mr Thongmy Latsavong  
   - Middle
2. Mr Nouhak Deedaangphanh  
   - Middle  
   - Chief Division
3. Khamthan Cihatsavong  
   - Middle

**Boualapha District**

1. Mr Sounita Khottavong  
   - Middle

**Nakai District**

1. Mr Souligna Saree  
   - Basic
2. Mr Keolencar Keo onhkhay  
   - Advance
3. Mr Bounthorn Vnalath  
   - Advance

**Xe Bangfai District**

1. Mr Thongphoun Bounthavong  
   - Middle
2. Mr Somni Soulisak  
   - Basic
3. Mr Siaart Sayphosy  
   - Basic
4. Mr Keomnivong Siouvanh  
   - Middle
5. Mr Choumsi Saygnavong  
   - Middle
6. Mr Gnorpnaphana Ketchanh  
   - Advance
7. Mrs Lisabet Thammavong  
   - Middle

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**Division of Forestry**

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   | Advance |       | Deputy Chief |
| 2    | Mr Phoutsady Xaygnaja  
   | Basic   |       |                  |
| 3    | Mr Saykhomanh Senhmany  
   | Middle  |       |                  |
| 4    | Mr Alounth Vangvienghong  
   | Middle  |       |                  |
| 5    | Mr Lamphanh Kommadam   
   | Advance |       |                  |
| 6    | Mr Khampa Senblaha    
   | Middle  |       |                  |
| 7    | Mr Viengsavanh Phomnasarn  
   | Advance |       |                  |
| 8    | Mr Sourthborn Phommaajak  
   | Middle  |       |                  |
| 9    | Mr Siouk Keobam  
   | Middle  |       |                  |
| 10   | Mrs Duangra Phasomphit  
   | Middle  |       |                  |
| 11   | Mr Phouvy Phasomphit  
   | Middle  |       |                  |
| 12   | Mrs Bouleung Xaygnaphone  
   | Basic   |       |                  |
| 13   | Mr Kongkeo Sommanohak  
   | Driver  |       |                  |
| 14   | Mr Soukatha Vnulath  
   | Advance |       |                  |
| 15   | Mr Phouvieng Mahaphom   
   | Middle  |       |                  |
| 16   | Mrs Kea Mottaphanit  
   | Basic   |       |                  |
| 17   | Mr Bounthavy Phengpheng  
   | Middle  |       |                  |
| 18   | Mr Bounthavy Sisobat  
   | Advance |       | Chief Division |
| 19   | Mrs Phouthteung Innhoagnak  
   | Basic   |       |                  |
| 20   | Mr Hongsa Vongvichith  
   | Middle  |       |                  |
| 21   | Mr Phouvahn Sisalath  
   | Advance |       |                  |
| 22   | Mr Linh Phommaajak  
   | Basic   |       |                  |
| 23   | Mr Khampa Xaylanvan  
   | Middle  |       |                  |
| 24   | Mrs Siviengsax Mixay  
   | Advance |       |                  |
| 25   | Mr Lamphanh Xaypanno  
   | Middle  |       |                  |
| 26   | Mr Phaibounh Malakoul  
   | Advance |       |                  |
| 27   | Mr Bounkhum Phuang oudorn  
   | Advance |       |                  |
| 28   | Mrs Vanida Lattanamongkhoun  
   | Middle  |       |                  |

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November 2004

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### Education

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### Chapter 7: Capacity Building and Staff Training (Livelihoods)

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### Chapter 7: Capacity Building and Staff Training (Livelihoods)

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<td>Forestry</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mr Boumgmong Soulgnvong</td>
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**Administration**

<table>
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<tr>
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<td>Mrs Parrnhkham Souvannasao</td>
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<td>Mr Soulkhimm Komegla</td>
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<tr>
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<td>Mr Khampkham Chanthorn</td>
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**Specialists**

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<td>Mr Sopah Chanthavixay</td>
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<td>3</td>
<td>Mr Bounx Vongxaynaalath</td>
<td>Middle</td>
<td>Live stock</td>
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</tr>
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<td>4</td>
<td>Mr Thanousornh Hornsombat</td>
<td>Middle</td>
<td>Forestry</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mr Khampklh Phengthongma</td>
<td>Trainer</td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>Mr Somphornh Xaygnaseng</td>
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<tr>
<td>7</td>
<td>Mr Banhao Banchongkiet</td>
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<tr>
<td>8</td>
<td>Mr Viphot Xaygnavong</td>
<td>Trainer</td>
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<tr>
<td>9</td>
<td>Mr Xaysana Xaygnavong</td>
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### Education

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<td>1</td>
<td>Mr Sengdouanh Vongsagna</td>
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<tr>
<td>2</td>
<td>Mrs Phouvilay Ladda</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Mr Khambay Louangphaxay</td>
<td>Advance</td>
<td>Forestry</td>
<td></td>
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<tr>
<td>2</td>
<td>Mr Phouvanh Sibalath</td>
<td>Advance</td>
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<tr>
<td>3</td>
<td>Mr Hatsady Khoasa</td>
<td>Middle</td>
<td>Forestry</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mr Sayamornh Soulidet</td>
<td>Advance</td>
<td>Forestry</td>
<td>Cash Desk</td>
</tr>
<tr>
<td>5</td>
<td>Mr Chansamout Sinthavong</td>
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<td>Melinh Phommajark</td>
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<td>7</td>
<td>Mrs Khamchanh Silipangnoun</td>
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<td>Nurse</td>
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<td>8</td>
<td>Mrs Phoutsady Xaygnajark</td>
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<td>Mrs Bounleung Xaygnaphorn</td>
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<td>10</td>
<td>Mr Kongkeo Simmansohark</td>
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<td>13</td>
<td>Mr Boumy Xaygnaphoum</td>
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<tr>
<td>1</td>
<td>Mr Souli Thamnavong</td>
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<tr>
<td>2</td>
<td>Mr Keovilay Khouneboulom</td>
<td>Bachelor</td>
<td>Agriculture</td>
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<tr>
<td>3</td>
<td>Mr Tiengkham Sinthasornh</td>
<td>Middle</td>
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<tr>
<td>4</td>
<td>Mr Inpeng Forngvichith</td>
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<td>Live stock</td>
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<table>
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<tr>
<td>1</td>
<td>Mr Douanchay Khotoungvong</td>
<td>Advance</td>
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<tr>
<td>2</td>
<td>Mr Khambong Phoungvong</td>
<td>Basic</td>
<td>Mechanic</td>
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</tr>
<tr>
<td>3</td>
<td>Mr Sayamornh Khamsamornh</td>
<td>Basic</td>
<td>Mechanic</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mr Bouma Pamsanouvang</td>
<td>Basic</td>
<td>Mechanic</td>
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</tbody>
</table>
CHAPTER 8
RISK MANAGEMENT FRAMEWORK, MONITORING AND EVALUATION

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Chapter 8: Risk Management Framework, Monitoring and Evaluation

8 RISK MANAGEMENT, MONITORING AND EVALUATION

8.1 INTRODUCTION

The overall objective of the Social Development Plan (for the plateau) is to ensure that all relocated plateau families are significantly better off after the project, rather than merely restoring their former living conditions. Within this overall goal, two specific targets have been set:

- Each relocated plateau household is elevated from their present poverty status, by raising their income to at least the national poverty line within 4 years after relocation.
- The average income of all plateau resettlement villages is raised to at least the Lao PDR national average rural income level by the end of the resettlement implementation period.

Similarly, for downstream PAPs on the Xe Bangfai, the objective is to fully compensate for any assets or livelihoods lost or impacted upon, by fair replacement either in kind or in alternative income (imputed and cash), at least equal to the value lost.

As with any complex project, a number of risks will be associated with achieving the above objectives. As far as possible, these have been identified and mitigated against in the resettlement plans. However, uncertainties and additional risks always remain and need to be dealt with as and when they occur. For this reason, a risk management strategy has been developed for the SDP to safeguard against both the risks identified and any future unforeseen occurrences.

During the implementation of the SDP, conflicts, complaints and grievances will undoubtedly arise and will need to be resolved in a fair and transparent manner. Obviously, the most important step in conflict resolution is conflict avoidance, and the consultative and participatory nature of the planning process for the SDP will go a long way to reducing the occurrence of disagreements and conflicting positions. However, in instances where grievances do occur, it is similarly important that they are resolved quickly before positions harden and disagreements escalate. Towards this end and to ensure that all PAPs are compensated for their losses in a fair and transparent manner, grievance and conflict resolution procedures have been developed for use during implementation of the SDP.

Finally, if the intended objectives and targets of the SDP are to be achieved in a demonstrable manner, some means of assessing progress towards these goals and identifying problems on a timely basis will be required. Baselines have been completed and monitoring systems developed to provide SDP managers with timely information on progress towards stated objectives. Monitoring will be of two types:

(i) Regular, internal monitoring by RMU and the Company to track progress towards objectives.
(ii) External monitoring at selected intervals by the POE and an independent monitoring team, to verify and evaluate internal monitoring data.

Internal monitoring for plateau resettled households will be participatory in nature and involve resettled families in data collection and analysis. By these means each affected household will have access to relevant monitoring information which will be available to them for livelihood planning and farm management purposes. It is also anticipated, that the participatory nature of monitoring will prove useful to, and lead to significant capacity development in these families. It will also improve the reliability of monitoring data by including information on all relocated households, rather than merely a sub-sample as was used in the socio-economic baseline.

The NT2 Project will have significant impacts (both positive and negative) on a large number of villages, households and individuals. A number of steps have been taken in planning the Project to limit the negative impacts by such means as limiting the size of the reservoir, constructing saddle dams, installing a regulating pond below the power house, providing aeration structures in the downstream channel, etc. These are collectively known as impact mitigation measures. Even with impact mitigation, some negative impacts will still occur and the purpose of the SDP is to ensure that affected communities, families and individuals are fairly compensated for these.
Chapter 8: Risk Management Framework, Monitoring and Evaluation

The SDP entails a number of risks, both in terms of the plans made and in their execution. Throughout the planning process careful attention has been paid to considering the uncertainties and risks involved, and every effort has been made to identify potential risks and to deal with these during planning. The purpose of this section is to describe the risks involved in providing compensation and to demonstrate how they have been dealt with so as to ensure fair recompense to all affected people. Implementation of the SDP, as with any complex project, will involve a certain amount of risk and uncertainty. As explained in the following sections, the main parties that will shoulder this risk, and ensure that such risks are not passed on the villagers, is the NTPC. However, the other two project partners, the GOL and stakeholder villagers, must also play a role in limiting risk and management of risk, as appropriate.

8.2 Risk Management Specific to Plateau Resettlement

8.2.1 Risk Minimization in the Resettlement Area

In the early years of project planning, the ethnic minorities villagers on the plateau (and the few non-ethnic minority villagers) were presented with various options (sites) for relocation and resettlement. Most were in lowland areas surrounding the plateau, and one was the plateau itself (see Chapter 19). The villagers chose the plateau for various reasons, including:

1. They are indigenous to the Nakai Plateau, and thus it is not only familiar territory, but contains their territorial spirits etc;
2. There are no host communities in the plateau Resettlement Area,
3. For many villagers, the plateau resettlements sites are very close to their current villages, thus not only minimizing the actual distance of relocation but, combined with points 1 and 2 above minimizing the physco-social stress involved in the relocation;
4. The plateau resettlement area will be close to the new reservoir for fisheries; and
5. The plateau resettlement area will be close to - contiguous with - the drawdown zones which may have multiple purposes

Thus, the villagers choice, and the agreement on the part of GOL and NTPC, is a major step towards the minimization of the risks which otherwise may have had an impact on resettlement.

The one and only problem with the villages choice of the southern edge of the reservoir as their resettlement sites is that the soils of the area are poor (see Chapter 21). Soil surveys in the Ban Nong Boua pilot village have confirmed the poor soils in terms of agriculture production. However, the pilot village experience has also shown that soil amelioration by the use of composted organic fertilizer can ensure high yielding, quality crops. Poor soils conditions are also being mitigated by the development of irrigation systems which allows intensification and due attention paid to soil management.

The general locations of the 12 resettlement villages have been established through consultations with the villagers (see Chapter 19). All (will be located in close proximity to the edge of the reservoir, thus enabling pumped irrigation systems using reservoir water. Following the villagers choice of the reservoirs southern edge as the resettlement area, the GoL allocated the whole area between the reservoir shoreline and the plateau escarpment to the resettlers, a total of about 20,000 ha. Up to 1,500 ha of this area will be developed as agricultural fields and urban and village areas. The land resource of the remaining 18,500 ha will, in the first instance provide for the opportunity to engage in both subsistence and commercial forestry on a community basis. Some 5,600 ha of the area has been assessed as currently suitable for commercially viable forestry, while about 7,000 ha of degraded forest can be regenerated for commercial forestry and NTFPs, or further developed for grazing and rainfed agriculture, where appropriate. The remainder is rather steep and will be reserved for sustainable NTFP and wildlife offtake, and very selective logging.

Thus, the extensive resource areas provided for resettlement - large relative to the population - is in itself a major risk minimization element of the SDP.
8.2.2 Risk Minimization Associated with Livelihood Options

Another risk reduction strategy of the SDP is the design of a range of improved livelihood systems for relocated plateau communities. The entire livelihood package for plateau resettled villagers (as described in Chapter 25) is neither prescriptive nor fixed. Resettlers are offered a diverse and flexible basket of livelihood options from which they can select, test and either develop or reject, according to their individual situation or their personal aspirations. Diversity is a common hedge against risk, and the wide range of options offered to resettled families is, in itself, an effective and prudent risk management strategy.

As noted in Section 8.2.1 above, the limitation of having to develop the agricultural component of the livelihoods on sub-optimal soils has been recognized from the outset, and for this reason, the livelihoods model is designed to be not overly dependent on crop agriculture, while at the same time being fully supported with irrigation and soil fertility management systems.

Irrigated agricultural lands will be developed and provided to all families, but it is up to each family to decide what to grow and how to manage and utilize the areas. Some families may choose intensively double season cropping, while others may crop in only the wet season. Some families may choose perennial crops such as fruit trees, tea, or any perennial or semi industrial crops that are demonstrated, over time and thru experience, to be both feasible and economic.

The drawdown zone of the southern edge of the reservoir will also be available to resettlers to utilise in the dry and early wet seasons. Families with more labour will likely seek more livelihoods from fishing activities, from animal raising and from employment in the forestry sector.

In addition, non-farm employment opportunities will be increased by dam construction, plant management and maintenance, tourism development and improved access.

Table 8-1 provides an indicative ranking of the overall level of risk associated with each of the resettlements main components. Table 8-2 present a summary of (a) the potential risks associated with each livelihood element which may constrain the targets being achieved, and (b) the measures inherent in the SDP that will minimize or reduce these risks.

Table 8-1: Indicative Ranking of Actual Risk Levels for Resettled Village Livelihood Options,

<table>
<thead>
<tr>
<th>Source of risk</th>
<th>Cropping</th>
<th>Forestry</th>
<th>Fisheries</th>
<th>Livestock</th>
<th>Off-farm work</th>
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</thead>
<tbody>
<tr>
<td>(i) Technical risk</td>
<td>low-medium</td>
<td>low</td>
<td>low-medium</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>(ii) Economic risk</td>
<td>medium</td>
<td>medium</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>(iii) Resource risks</td>
<td>medium</td>
<td>low</td>
<td>low-medium</td>
<td>medium</td>
<td>n.a.</td>
</tr>
<tr>
<td>(iv) Tenure risks</td>
<td>low</td>
<td>low*</td>
<td>low*</td>
<td>medium</td>
<td>n.a</td>
</tr>
<tr>
<td>(v) Social Risks</td>
<td>low-medium</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>low-medium</td>
</tr>
<tr>
<td>(vi) Labour risk</td>
<td>low-medium</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>n.a.</td>
</tr>
<tr>
<td>(vii) Management risks</td>
<td>medium</td>
<td>low-medium</td>
<td>low-medium</td>
<td>low</td>
<td>low</td>
</tr>
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</table>

* assuming resource tenure arrangements are implemented and effective
### Table 8-2: Possible Risks of Plateau Livelihood Options, and how these are minimized by Program design and implementation

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<tr>
<td><strong>Technical</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Possible Risk</strong></td>
<td>Lack of experience</td>
<td>Inadequate mgt. plans</td>
<td>Poor reservoir management</td>
<td>Disease outbreaks</td>
<td>Lack of appropriate skills</td>
</tr>
<tr>
<td></td>
<td>Lack of appropriate varieties</td>
<td>Poor quality timber</td>
<td>Lack of fish mgt. agreements</td>
<td>Lack of breeding stock</td>
<td>Traditional skills largely</td>
</tr>
<tr>
<td></td>
<td>Irrigation system difficulties</td>
<td>Lack of mgt. Skills</td>
<td>Water quality problems</td>
<td>Lack of forage species</td>
<td>inappropriate</td>
</tr>
<tr>
<td></td>
<td>Lack of extension service</td>
<td>Problems with rehabilitation of degraded forest areas</td>
<td>Inappropriate species stocked</td>
<td></td>
<td>literacy</td>
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<tr>
<td></td>
<td>Lack of cultivation tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Most settlers already experienced in crop production</td>
<td>TA to assist development of inventories and Plans. Species/productivity known. Community forestry models exist in Lao PDR. Forest organization to ensure correct management.</td>
<td>Villagers already familiar with fishers and aquatics. Reservoir fish yield potential has been assessed as good. Fisheries extension services will be strengthened.</td>
<td>Breeding stock to be supplied Forage species tested/provided. Livestock raising currently practiced by most hhs. Forage potential increased by reservoir drawdown areas. Livestock extension services.</td>
<td>Opportunities identified and will be developed by training. Skill levels required generally low to medium. Villagers elsewhere shown themselves to be adaptable</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>Low price for produce</td>
<td>Financial mgt. of timber</td>
<td>Lack of markets</td>
<td>Lack of markets for small non cattle livestock</td>
<td>Low wage rates</td>
</tr>
<tr>
<td></td>
<td>Lack of markets for crops</td>
<td>Payment of tax and royalties</td>
<td>Fishing operational costs</td>
<td>Lack of capital for livestock purchase</td>
<td>Lack of work opportunities</td>
</tr>
<tr>
<td></td>
<td>High marketing costs</td>
<td>High mgt. costs</td>
<td>Mkt. price volatility</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Possible risk</strong></td>
<td>Rice mostly for subsistence</td>
<td>Operation costs are known and being verified. Tax/royalties already assessed. NPVFA will focus on optimal economic activities</td>
<td>Much of catch for home consumption, protein source. Large fish mkt. in Lao PDR and Thailand. Minimal hh cash inputs</td>
<td>Most livestock kept as cash reserve rather than for mkt. Local markets already exist. Animal health services to be provided.</td>
<td>Prevailing wage labour rates already quantified. Dam operation will provide opportunities for skilled higher paid work (if trained)</td>
</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Small surpluses of fruit/veg. to be sold locally</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mkt. access improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Camp workers potential mkt.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Natural resources</strong></td>
<td>Difficulties in paddy land development</td>
<td>Competition from private companies</td>
<td>Over-fishing</td>
<td>Loss of grazing to reservoir</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infertile soils</td>
<td>Illegal logging (theft)</td>
<td>Lack of breeding grounds</td>
<td>Overgrazing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil erosion</td>
<td>Low quality forest resource</td>
<td>Multiple use water resource</td>
<td>Land use conflicts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small land area</td>
<td></td>
<td></td>
<td>Conflicts with lowland herds</td>
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</tbody>
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November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1
## LIVELIHOOD OPTION

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<tbody>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Irrigation water provided</td>
<td>Extensive forest resources already exist</td>
<td>Reservoir Mgt. Unit to be established</td>
<td>Reservoir drawdown area provides additional grazing</td>
<td>Active (seasonal) labour force available in resettled villages</td>
</tr>
<tr>
<td></td>
<td>Soil fertility mgt. systems being developed</td>
<td>Plantation and enrichment</td>
<td>Fisheries monitoring data to be used to modify fisheries resource management plans</td>
<td>Extensive grazing areas available for improved forage</td>
<td>NT2 construction/operation will increase opportunities</td>
</tr>
<tr>
<td></td>
<td>Organic re-cycling systems to be developed</td>
<td>Planting opportunities being assessed</td>
<td></td>
<td></td>
<td>Tourism related opportunities</td>
</tr>
<tr>
<td><strong>Tenure</strong></td>
<td>Small land area allocated</td>
<td>GOL policy changes</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Variable productivity of plots</td>
<td>Inter-village disputes</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Inequitable distribution of forest dividends</td>
<td></td>
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<td></td>
<td></td>
<td>Conflicts with other land uses</td>
<td></td>
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<tr>
<td><strong>Possible risk</strong></td>
<td>Land tenure documents to be issued</td>
<td>Community forest tenure systems exist under Lao law</td>
<td></td>
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<tr>
<td></td>
<td>Village LUP to be conducted</td>
<td>Forest lands legally allocated by decree</td>
<td></td>
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<tr>
<td><strong>Risk Reduction measures</strong></td>
<td></td>
<td>Resettlers given exclusive use of reservoir fisheries</td>
<td></td>
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<td></td>
<td></td>
<td>NPFA established</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>All hhs have equal access to fisheries resource</td>
<td></td>
<td></td>
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<tr>
<td><strong>Social Acceptance</strong></td>
<td>Crop species unacceptable</td>
<td>Difficulties with inter and intra community cooperation in forestry resource mgt.</td>
<td></td>
<td></td>
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<tr>
<td><strong>Possible risk</strong></td>
<td>Use of new practices required</td>
<td></td>
<td>Different fishing techniques required</td>
<td></td>
<td>HH head cannot leave family</td>
</tr>
<tr>
<td></td>
<td>Traditional community support systems inapplicable</td>
<td></td>
<td>Unfamiliar with stocked fish species</td>
<td></td>
<td>Unfamiliar with cash labour economy</td>
</tr>
<tr>
<td></td>
<td>(exchange labour, etc.)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Rice is main staple</td>
<td></td>
<td>Livestock raising currently practiced by most hhs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of local vegetable/fruit species proposed in SDP</td>
<td></td>
<td>Variety of livestock options available</td>
<td></td>
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<tr>
<td></td>
<td>Domestication of NTFPs</td>
<td></td>
<td></td>
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<tr>
<td><strong>Labour</strong></td>
<td></td>
<td>Hhs already have exposure to forestry activities</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Possible risk</strong></td>
<td>High labour requirement</td>
<td></td>
<td>Most resettlers already fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distance to fields</td>
<td></td>
<td>Strong preference for fishing during PAP consultations</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Highly seasonal labour use</td>
<td></td>
<td>Multi-species fishery resource</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Gender labour roles</td>
<td></td>
<td></td>
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<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Vulnerable hhs identified and given special support</td>
<td>Availability of labour for forestry in vulnerable hhs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Farm plots close to village</td>
<td>Inequate access to forest-related wage labour</td>
<td>Availability of hh labour for fishing</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Distance to fishing sites</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Gender roles in fishing</td>
<td></td>
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</tr>
<tr>
<td><strong>Possible risk</strong></td>
<td>High labour requirement</td>
<td>Special concessions for vulnerable hhs</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Distance to fields</td>
<td>Labour provision optional</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Highly seasonal labour use</td>
<td></td>
<td>Gender roles in fishing are catered for</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Gender labour roles</td>
<td></td>
<td>Non-seasonal labour reqts. compatible with other livelihood activities</td>
<td></td>
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</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Vulnerable hhs identified and given special support</td>
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<tr>
<td></td>
<td>Farm plots close to village</td>
<td></td>
<td>Livestock provide draft power for cropping activities</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Community joint herding systems already exist</td>
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<tr>
<td><strong>Labour</strong></td>
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<td></td>
<td>Conflicts with farm work</td>
<td></td>
<td>Off-farm workers introduced to social evils</td>
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<td></td>
<td>Lack of family labour</td>
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<tr>
<td></td>
<td>Off-farm workers introduced to social evils</td>
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</table>
**Phasing in of livelihood implementation**

The livelihood options that will be developed for and offered to the resettlers will not all be available all at the same time, as shown in Figure 8-1 below, for the following reasons:

- Crop production will be an available livelihood option at relocation, but will remain at low, rainfed, production levels until irrigation water can be provided after reservoir filling, shortly prior to COD.
- Three villages will have the planned irrigation systems available at the time of relocation, and thus this provides for extensive technical and social testing of irrigation program prior to the construction of the remaining 8 village irrigation systems.
- Forestry activities can start even before financial close, and will provide employment and benefits immediately, based for the first three years of salvage logging on project :Lands.
- Fishery activities will only be initiated following reservoir filling, some years after the actual relocation.
- Livestock activities will be available immediately, and up until dam impoundment will benefit from the entire reservoir area. Thus it will be able to continue largely as before, but with additional SDP assistance for improved forage and animal health services.
- Finally, off-farm employment opportunities will only really begin to materialize at the start of the construction phase.

**Figure 8-1: Schedule of Livelihood Activities, Nakai Plateau**

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<tbody>
<tr>
<td>1 Initial Resettlement Planning</td>
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<td>2 Detailed Resettlement Planning</td>
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<td>3 Topographic and Soils Surveys</td>
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<td>4 Consultations</td>
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<td>5 Relocate/Establish Pilot Village</td>
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<td>6 Main Relocation: Villages group 1</td>
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<td>7 Main Relocation: Villages group 2</td>
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<td>8 Livelihood Options development</td>
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<td>&gt; Construct Irrigation Systems</td>
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<td>&gt; Agriculture: Rainfed</td>
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<td>&gt; Agricultural: Irrigated, double cropping</td>
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<td>&gt; Forestry</td>
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<td>&gt; Fisheries</td>
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<td>&gt; Construction related work (transitional)</td>
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<td>&gt; off farm employment, small business etc</td>
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</table>

Because these different livelihood options will come on-line in stages, any risks associated with each option will thus also manifest itself progressively over times. This phasing in of the options is, in itself, a significant risk reduction strategy, as villagers will thus only have to deal with any livelihood risk one at a time - first the forestry, then the agriculture in two stages, rainfed then irrigated, and later the livestock and fisheries.

The major risks associated with *crop production* are the small size of the plots, poor soils and the general change in farming practices that the new cropping systems will entail for the resettled population. These risks will be largely negated by the provision of irrigation water (when it comes on line) and organic fertilizer to allow for more intensive crop rotations and production systems, thereby increasing productivity per unit land area. Skills in the new practices that these improved systems entail will be supported by the provision of agricultural extension services to the resettled farmers. Initial inputs in the form of seed, planting materials, tools, etc required by the improved cropping systems will also be provided.

Risks associated with *the community forestry* are generally less critical than those for crop production, as there are existing stocks of timber of good quality. Successful models for community forestry programs exist in the Lao PDR and the lessons from these have been incorporated into the SDP. The forestry
resource in the resettlement area will be able to partially compensate for any shortfall in household income from other sources (crops, livestock, fisheries) and can thus be considered as a risk management strategy in its own right.

The major risks with reservoir fisheries are anticipated in the early resettlement period. The water resource itself will only materialize after completion of the dam, and some limited problems with water quality due to the decomposition of organic material can be expected in the early years following inundation. Over the longer term, potential risks associated with tenure are anticipated as, apart from fishing, the reservoir will be managed for multiple purposes including power generation, transport, wildlife conservation, irrigation and tourism. To mitigate this risk, a reservoir management authority will be established to manage the multiple use, while ensuring that that the interests of resettled communities are fully represented.

Livestock raising is low risks as the plateau is already extensively and successfully used for buffalo raising. The major risk stems from the fact that a significant proportion of the area currently used for grazing will be lost to the reservoir, raising the question as to whether the current livestock population will be able to be maintained. The annual and extensive drawdown area may be able to provide good seasonal forage, while a program to under-sew the degraded and more open forest with superior perennial pasture species should both mitigate this risk (see Chapter 21). Risks associated with tenure are important here as grazing land is essentially a common resource, with free access to anyone. Thus, the increased stocking rates caused by loss of land to the reservoir, resettlement and possibly community forestry will be addressed by improved grazing management measures that are fair and equitable to all resettled communities.

Although the increased opportunities for off-farm employment that the NT2 project and the improved access will provide over the longer term, they also bring with them additional risks. On the whole, these are social rather than economic risks and include family disintegration, introduction of HIV and other illnesses and the loss of traditional support systems, as communities become more market oriented and increasingly globalized. The younger generations will be particularly prone to these risks, and risk reduction mechanisms will include education and training general in livelihood and vocational skills.

8.2.3 Transition and Income Support

The CA obligates the project to assist the villages to achieve certain income targets. The first target is that each household is elevated from their present poverty status, by raising their income to at least the national poverty line within 4 years after relocation. Insofar as this target is not met, income support is to be provided by the Project. Over the longer-term, the second target requires that the average income of all resettlement villages is raised to at least the Lao PDR national average rural income level by the end of the resettlement implementation period.

However, achievement of such targets will take time, and will be achieved differently by families. Thus, transition support or income support will be provided as measures to reduce the risk of income targets not being achieved through the new livelihood options. Transition support is of two types:

a. Rice. The Concession Agreement specifies that 440 kg of rice will be made available to each resettling person. This is 25 percent of the average rice consumption, per person, over an eight year period, at an estimated value of US$ 605 per average-sized household, and at current prices. The Resettlement Committee will set the regulations to allocate and monitor this program.

b. Rice – for – Work. The resettlers will be paid for working on the construction of their new houses, should they wish to do so. They will also be paid to develop their farm-plot, in anticipation of the irrigation system, and will receive rice in return for the labour provided. This program has already been tested at the demonstration farm and is now being implemented at the Pilot Village.

Income support by way of the forest dividend is expected to be provided at US$ 100 per household per year. This has been included in the forest income component. The dividend is to be paid to all member households of the NPVA, in recognition of the forest resource having been exclusively assigned by GOL.
to the Plateau community, for their use and stewardship. Livelihood risks are consequently reduced by this measure.

8.3 Risk Management in the Xe Bangfai Downstream Area

The impacts of the NT2 Project on the livelihood conditions and assets of people living along the Xe Bangfai will only appear after COD. Mitigating (engineering) measures to reduce these impacts, such as the regulating pond, aeration structures, etc. will significantly reduce impacts. However, some impacts, albeit at reduced levels, will still occur and project affected households will be compensated for these under the SDP (Volume 3). The SDP's objective is to compensate for any assets or livelihoods lost or impacted upon, by fair replacement either in kind or in alternative income (imputed and cash), at least equal to the value lost (see Figure 8-2).

Extensive studies have shown that the NT2 project will impact on people’s livelihoods in the downstream Xe Bangfai region in a number of ways. The extent of these impacts has been predicted, and measures developed to fairly compensate all affected people by fair replacement either in kind or in alternative income (imputed and cash), at least equal to the value lost. The impacts and the means of compensation developed under the SDP are as follows:

1. Potential decreases in fish and aquatic product to be compensated for by the provision of aquaculture systems, improved wetland management and other livelihood activities.
2. The loss of riverbank gardens due to inundation of the lower gardens and erosion or slumping of the upper gardens to be compensated for by replacement irrigated gardens above the river level.
3. Erosion of the footings of irrigation pumping stations, and problems with supply during Sunday drawdown and Monday drawup to be compensated for modification to pump installations.
4. The loss of the use of river water for household use due to water quality considerations and flooding of riverside springs to be compensated for by the provision of wells, bores or similar.
5. The potential loss of some riverside assets due to erosion to be compensated for by riverbank protection or by relocation of the asset.
6. The loss of inability to cross the river due to increased depth to be compensated for by the provision of boats to villages where river crossing is currently possible in the dry season.

Figure 8-2: Schedule of Livelihood Activities, Xe Bangfai

A variety of potential risks are associated with the provision and use of these compensation measures which could result in the benefits not accruing to affected people as anticipated, are described, along with measures taken to reduce them and an indicative ranking as to their importance, in Table 8-3 and Table 8-4. The variety of aquaculture system options that can be used will reduce the technical risks which might be a serious constraint if only one system was available for all the diverse agro-ecological and socio-economic situations found along the Xe Bangfai. In addition the technical support that will be provided will help villagers make the transition from wild fish capture to aquaculture. Although the riverbank gardens are essentially only being relocated, the different soil types and micro-climate above the river bank could pose some technical risks, but these will be mitigated against by the provision of agricultural
extension services. Although they are now further away from river water, the provision of irrigation will reduce the risk of drought and reduce the amount of labour required.

Table 8-3: Indicative Ranking of Risk Levels Xe Bangfai Livelihood Compensation

<table>
<thead>
<tr>
<th>Mitigation of risk</th>
<th>Fisheries</th>
<th>Riverbank gardens</th>
<th>Irrigation systems</th>
<th>Domestic water</th>
<th>Riverside assets</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Technical risk</td>
<td>medium</td>
<td>low</td>
<td>medium</td>
<td>low</td>
<td>low</td>
<td>low</td>
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<tr>
<td>(ii) Economic risk</td>
<td>medium</td>
<td>low</td>
<td>negligible</td>
<td>low</td>
<td>medium</td>
<td>negligible</td>
</tr>
<tr>
<td>(iii) Resource risks</td>
<td>low</td>
<td>medium</td>
<td>negligible</td>
<td>low</td>
<td>medium</td>
<td>negligible</td>
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<tr>
<td>(iv) Tenure risks</td>
<td>low</td>
<td>medium</td>
<td>low</td>
<td>medium</td>
<td>low</td>
<td>medium</td>
</tr>
<tr>
<td>(v) Social Risks</td>
<td>low</td>
<td>low</td>
<td>negligible</td>
<td>medium</td>
<td>high</td>
<td>medium</td>
</tr>
<tr>
<td>(vi) Labour risk</td>
<td>medium</td>
<td>low</td>
<td>negligible</td>
<td>low</td>
<td>negligible</td>
<td>negligible</td>
</tr>
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</table>
### Table 8-4: Possible Risks of the XBF Livelihood Compensation program, and how these are minimized by Program design and implementation

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<tbody>
<tr>
<td><strong>Technical risk</strong></td>
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<tr>
<td>Possible risk</td>
<td>Poor aquaculture skills</td>
<td>Changed soil conditions</td>
<td>Problems during drawdown</td>
<td>Water quality</td>
<td>Technical relocation difficulties</td>
<td>Bank access to boat docks</td>
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<td></td>
<td>Inappropriate species</td>
<td>Microclimate changes</td>
<td>Engineering feasibility</td>
<td>Water depth</td>
<td>Conditions at new site</td>
<td>Strong currents</td>
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<td></td>
<td>Fish disease</td>
<td>Pests and disease</td>
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<td>Contamination of supply</td>
<td>Bank protection not feasible</td>
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<td></td>
<td>Flooding</td>
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<tr>
<td>Risk Reduction measures</td>
<td>Provision of technical advice</td>
<td></td>
<td></td>
<td></td>
<td>Land purchase is an option</td>
<td>Careful selection of boat type and size</td>
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<td></td>
<td>Appropriate choice of fish species</td>
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<tr>
<td></td>
<td>Well-proven aquaculture models are available</td>
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<tr>
<td>Economic risk</td>
<td>Low market prices for stocked species</td>
<td>Additional input costs</td>
<td>Additional repair costs</td>
<td>Additional time taken to draw water</td>
<td>Lack of economic opportunities at new site</td>
<td>Boat repair and maintenance costs</td>
</tr>
<tr>
<td></td>
<td>High cost of inputs</td>
<td></td>
<td>Additional running costs</td>
<td>Cost of repairs</td>
<td></td>
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<td></td>
<td>Mkt. preference for wild fish</td>
<td></td>
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<tr>
<td>Risk Reduction measures</td>
<td>Use of marketable fish species</td>
<td>Use of marketable varieties</td>
<td>Pumping costs lower due to higher water levels</td>
<td>Low maintenance systems used</td>
<td>Economic opportunities will be maintained as far as possible</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Low input aquaculture systems</td>
<td>Low input systems</td>
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<td>Alternatives available</td>
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</tr>
<tr>
<td>Resource- associated risks</td>
<td>Insufficient land for aquaculture</td>
<td>Lack of suitable land land</td>
<td>Insufficient land</td>
<td>Inadequate water tables</td>
<td>No appropriate site for relocation</td>
<td>Boat ownership issues</td>
</tr>
<tr>
<td></td>
<td>Water supply problems</td>
<td>Distance to new garden</td>
<td>Water quality</td>
<td>Siltation of bores</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor water quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Reduction measures</td>
<td>Careful selection of sites (non flood-prone)</td>
<td>Appropriate selection of garden sites</td>
<td>NA</td>
<td>Bore wells available for deeper water tables</td>
<td>Owner will have to agree to new proposed site</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Alternative systems on offer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Main Components of impact related compensation and development

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tenure-associated risks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Possible risk</strong></td>
<td>Problems of fish theft</td>
<td>Security of land tenure</td>
<td>Care and maintenance of common property resource</td>
<td>Water disputes</td>
<td>Lack of land for relocation</td>
<td>Responsibility for repair and maintenance</td>
</tr>
<tr>
<td></td>
<td>No land for ponds</td>
<td>Theft of produce</td>
<td>Theft or vandalism</td>
<td>Peak demand period</td>
<td>Land tenure for new site</td>
<td>Boat security</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water supply conflicts</td>
<td></td>
<td></td>
<td></td>
<td>Conflicts with other uses</td>
</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Ponds close to dwelling</td>
<td>Gardens close to houses</td>
<td>NA</td>
<td>1 well for approximately 5 families</td>
<td>Land purchase if necessary</td>
<td>Boat to be community asset</td>
</tr>
<tr>
<td><strong>Risks re. social acceptance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Possible risk</strong></td>
<td>Species unacceptable</td>
<td>Varieties unacceptable</td>
<td>Water taste acceptability</td>
<td>Loss of riverside access</td>
<td>Quality of life/visual changes in new location</td>
<td>Danger for young children</td>
</tr>
<tr>
<td></td>
<td>Additional work in aquaculture</td>
<td>Additional pesticides required</td>
<td>Bathing at communal well</td>
<td>Loss of neighbors</td>
<td>Loss of neighbors</td>
<td>Fear of deep water</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Appropriate choice of fish species</td>
<td>Appropriate selection of crops grown</td>
<td>NA</td>
<td>Alternative domestic water systems on offer</td>
<td>Additional asset improvement at new location</td>
<td>River navigation improved by higher water levels</td>
</tr>
<tr>
<td></td>
<td>Alternative aquaculture systems available</td>
<td></td>
<td></td>
<td>Rainwater storage as an option</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risks associated with labour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Possible risk</strong></td>
<td>Timeliness of labour reqts.</td>
<td>Additional labour reqts.</td>
<td>Additional labour required at drawdown/up</td>
<td>Increased distance to workplace</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender labour roles</td>
<td>Changes in gender roles</td>
<td></td>
<td></td>
<td></td>
<td>Access for young children</td>
</tr>
<tr>
<td></td>
<td>Cultural preference for wild fish capture</td>
<td>Distance to garden</td>
<td>Additional labour to draw and transport water</td>
<td></td>
<td></td>
<td>Additional time to cross</td>
</tr>
<tr>
<td><strong>Risk Reduction measures</strong></td>
<td>Low maintenance aquaculture systems</td>
<td>Gardens close to houses</td>
<td>Dry season irrigation potential will be increased by larger water volumes</td>
<td>Rainwater collection an option for wet season</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
8.4 INSTITUTIONAL AND SOCIAL CAPACITY RISK MANAGEMENT

The task of organizing for and managing the implementation of the SDP has been the subject of considerable study and discussion during the long and extended planning period. As early as 1997 the RMU was established. It has operated ever since, responding to the needs of project planning. Especially in the areas of carrying out various types of planning and technical surveys, and in holding consultations with all PAPs, the RMU maintains a close working relationships established between the Provincial, District and Village Units, as well as supporting organizations such as the Women’s Union. This has resulted in a basic level of readiness, thus reducing the risks inherent in the operation of any new institution. In addition, the GOL has established the Resettlement Committee with broad powers to direct the multitude of activities and to take corrective decision when needed.

The responsibilities of the two parties involved in the resettlement, the Company (RMU) and the GOL (RO) are clearly delineated in the CA, and this is being revised to reflect equal responsibility for implementation and outcomes. Coordination between the parties will be an ongoing feature throughout the implementation period thus further reducing potential risks.

The issue of the capacity of the RMU to carry out their obligations under the SDP has received considerable attention and specific actions have been taken, or planned to enhance it (see Chapters 6 and 7). While implementation risks will always be present, the commitments of GOL and the Company, and the actions they have taken to back up these commitments, speak to the fact that it is now believed that the management risks are understood by both parties, and have been addressed adequately in the CA.

In a major undertaking, such as the relocation and social and economic modification of the livelihoods of many thousands of households both on the plateau and downstream on the Xe Bangfai, a variety of social risks will always be encountered. While the population has been adequately prepared and consulted, there may nonetheless be some individuals or groups not fully ready to embrace the changes involved in resettlement and compensation.

Social risks may ensue from the resettlement of the plateau villages to a new location, with new livelihoods and, in some cases into a new community. However, the risks of social upheaval and the breakdown of traditional community support structures is minimized by the fact that communities are kept intact and the high level of local participation in siting, planning and layout of the new villages, even down to house design and location. Thus, it is expected that social trauma will be a minor problem, if at all.

Nonetheless, the ability of households and villages to respond to these changes will be carefully monitored. The adaptation to new village sites and to new and changed livelihood systems requires time and support which is already in place under the SDP. Monitoring data will be used to allow timely responses to unanticipated risks by the resettlement managers. In addition, the health of plateau people, especially active members of the labour force and vulnerable non-active persons, will be assessed prior to the physical relocation, and regularly during the transition period.

8.5 BUDGETARY MECHANISMS FOR RISK MANAGEMENT

The CA sets out general obligations and targets of NTPC and the GOL for the resettlement process. All of the resettlement, compensation and livelihood programs have been planned and costed, including the provision of funds to GOL staff and to TA (see Chapter 28). CA Schedule 4, Part 1, clauses 7-12 provide a detailed list of obligations and activities which NTPC and/or the GOL are nominated to perform all funded by NTPC.

Notwithstanding the careful planning and budgeting, it is recognised that the complex plans required under the CA and further defined in the SDP, covering a wide geographical area, various populations and a range of activities, mean that a fixed budget might unduly restrict the resettlement process. Whilst NTPC must limit its funding requirements in certain manners, the CA ensures flexibility and contingencies to meet the resettlement objectives. This flexibility and contingency is provided in the following 6 instruments, described in detail in sections 8.5.1 to 8.5.6.
8.5.1  "Fixed Scope" budget items

Some of the resettlement budget items, such as the resettler housing and infrastructure that will be provided by the Company, have been budgeted on the basis of a “Fixed Scope”. That is, these items will be of an agreed design and construction standard, and multiplied by the actual numbers of people (families) requiring the resettlement entitlements (as defined in Schedule 4, Part 1, clause 1.2). In these cases, the risk of any increases in costs to satisfy the agreed scope will be borne by the Company. The cost estimates in the resettlement budget are indicative only. This feature represents a contingency risk which is borne by the Company.

8.5.2  "Limited by Cost" budget items and Overrun Allowance

Other defined items are described as “Limited by Cost”. That is to say, for each such item, NTPC and GOL agree that no more than a capped amount shall be spent which for that item Limited by Cost is known as its Schedule 4 Budgeted Limit. NTPC assures the GOL these limits are sufficient (CA Clause 30.7(b) and (c)).

However, if the Company determines that any of these budgets are insufficient to implement the Limited by Cost Social and Environmental Objective, then the Company must agree with the GOL the likely cost and course of action to implement this measure. Should the Company and the GOL be unable to reach an agreement on the cost or course of action to implement this measure, the GOL may request the Panel of Experts to make a recommendation which the Company will be obliged to implement. The obligation of the Company to fund this additional expense is subject to an overall limit as defined in Clause 30.7(e) to (h) of the CA as the Overrun Allowance which is capped at US$ 2.5 million (as escalated). This covers all overrun costs in respect of the Limited by Cost Environmental and Social Objectives.

On the other hand, where a Limited by Cost activity is completed under budget then the Company is required to use the underrun amount to pay for cost overruns on other Limited by Cost items (CA Clause 30.7(j)).

8.5.3  Social and Environmental Remediation Fund

The SERF fund (see Schedule 4, Part 1, Clause 15.4) will be established just prior to COD, whereby NTPC will make available funding of up to US$ 300,000 per year (during the Operating Phase of 25 years, totalling US$ 7.5 million, and subject to price escalation on an agreed formula basis) for activities which the GOL consider are required to ensure effective sustainability of the social and resettlement program. The purpose of the SERF fund is to support the GOL in activities such as

(a) the operation and maintenance of the community water and irrigation systems;

(b) the maintenance of other resettlement assets; and

(c) to deal with any remaining problems which have arisen during the resettlement process.

The fund will be managed and operated by the RMU under the direction of the RC. The SERF fund is regarded as a Limited by Cost item and is subject to the Overrun Allowance mechanism (see Schedule 4, Part 1, Clause 15.4).
8.5.4 Unanticipated Project Impacts

While every effort has been made to identify all possible impacts and to provide corresponding responses in terms of costed measures, it is acknowledged that unanticipated social impacts may occur. The CA contains a provision to respond to such eventualities, through the “Unanticipated Project Impacts” (UPI) provision. Clauses 30.9, 30.10 and 30.11 and Schedule 4 of the CA outline the potential requirements arising from unanticipated social and environmental matters (i.e. environmental and social impacts which were not anticipated at the time of signing the CA and which, if they occur, would have been included in addition to the agreed Environmental and Social Objectives required under the CA). When either the GOL or NTPC becomes aware of such UPI it must notify the other party of such details. The GOL may then request NTPC to provide and implement recommendations to ameliorate these impacts. If NTPC and the GOL are unable to agree, the GOL may request the Panel of Experts to advise the parties and NTPC shall be bound to implement such recommendation within the cap described below. This provision therefore provides reasonable assurance that significant means will be available to deal with such unexpected eventualities comprehensively.

As specified in Clauses 30.11 of the CA, NTPC is responsible for the alleviation and remedy of these Unanticipated Project Impacts up to a maximum of US$ 10 million subject to CPI indexation from a date six months prior to the date of the CA’s signing.

8.5.5 Environmental Insurance Proceeds

Whilst the Cost Overrun Allowance of USD 2.5 million and the USD 10 million budget for Unanticipated Project Impacts provide considerable contingency, CA provides a further contingency funding for the accidental or unexpected through NTPC’s insurance in respect of resettlement activities. Where NTPC successfully claims under its insurance policies for losses relating to resettlement activities, the Cost Overrun Allowance and the UPI allowance remain untouched (CA Clause 30.1 (d) (ii)).

8.5.6 Review by the Panel of Experts

The Panel of Experts is described in more detail below (Section 8.7.3), however, it is worth noting here their effect on budget restrictions. The Panel is not permitted to propose increases in the Schedule 4 Budgeted Limit or the cost of individual limited-by-cost items (CA, Clause 30.17 (e)). However, it is the Panel of Experts that advises whether NTPC has achieved its general Resettlement Obligations and Provisions (including a best efforts obligation to reach Household Income Targets and Village Income Targets), and if not, may recommend further activities and further time to implement the resettlement measures (CA, Clause 30.17 (a)-(f)). The result of the mechanism means that if the Schedule 4, Budgeted Limit and the overrun of USD 2.5 million has been spent but the Resettlement Objectives or the Resettlement Provisions are not achieved, then NTPC is required to comply with the Panel’s recommendations to provide the funding to achieve those objectives. Therefore, NTPC’s funding obligations for resettlement are not limited until the guiding objectives are satisfied in the view of the Panel of Experts until the end of the Concession Period. NTPC’s obligations on termination of the CA are outlined in Section 8.6 below.

8.5.7 Security

The budget provides flexibility and significant built-in contingencies as described above. In order to put pressure upon NTPC to satisfy those budget requirements, NTPC must put in place two letters of credit at the beginning of the Construction Phase.

1: The Environmental and Social Objectives Letter of Credit provides up to US$ 7.5 million of on demand security for the GOL. This LoC is triggered, and funds can be drawn by GOL, where GOL has undertaken resettlement obligations (implemented activities) either;

(i) at NTPC’s request; or

(ii) through failure of NTPC to perform its obligation,

… but then NTPC has failed to reimburse GOL its costs (CA, Clause 30.8).

2: The Unexpected Project Impact Letter of Credit provides up to US$ 5 million of on demand security for the GOL. This is triggered where GOL has worked to address the UPI either
8.6 TERMINATION OBLIGATIONS

If the CA is terminated prior to the GOL Project Completion Date (the date around the completion of construction when most resettlement activities are to have been completed) the GOL must undertake what are known as the Resettlement Termination Obligations up to a value of US$ 1 million (CA, Clause 30.14 and Schedule 7). Schedule 7 of the CA sets out those obligations divided into categories dependent upon the time of termination and therefore the stage reached within the resettlement process (CA, Schedule 7, Part A). This may involve the villagers (as a village) having the opportunity to move to a new village, or be allowed to return to their previous village. The details of these arrangements are described in Schedule 7 of the CA which is provided in the SDP as Annex A2. In summary, it provides for the affected people not being disadvantaged as a result of the risk of premature termination. NTPC has an obligation to fund these Resettlement Termination Obligations to a maximum of US$ 1 million, which is also secured by a letter of credit (CA, Clause 30.14).

8.7 CONFLICT RESOLUTION AND GRIEVANCE PROCEDURES

Because of different perceptions, values, objectives and responsibilities among different stakeholders, a range of conflicts may occur among and between affected people, resettled villages, district authorities, the RMU, central government and others. Obviously, the most important step in conflict resolution is conflict avoidance, and the consultative and participatory nature of decision making under the SDP is aimed at reducing the occurrence of disagreements and conflicting positions. In instances where disagreements do occur, it is similarly important that they are resolved quickly before positions harden and the conflict escalates. Different approaches may be required according to the level that any conflict has reached, while at the same time, recognizing that the earlier a potential conflict is recognized and dealt with, the higher the chance of a successful outcome. These phases of conflict development and appropriate interventions can be summarized as follows:

- Conflict avoidance: > Consultation & participation in planning, decision making
- Simple disagreements > Informal negotiation, discussion and mediation
- Early conflict development > Refer to Village Resettlement Committee
- Conflicting positions taken > Reference to Grievance Committee as District level.
- Intractable conflict > Refer conflict to Provincial Court.

To ensure that the basic rights and interests of resettlers are protected, that concerns are adequately addressed and that entitlements are delivered, a grievance procedure has been designed for the NT2 Project. An independent Grievance Committee will be established. It will be chaired by a senior provincial official, probably from the Justice Department, with other members the Lao Women’s Union, the Ethnic Council, civil society, a resettled villager representative and a member of the Resettlement Committee. Justice departments at district and provincial levels are already responsible for resolving village conflicts and property disputes, while the LWU and Ethnic Council are active in solving problems faced by village women and the elderly.

If an affected person or group of persons is not satisfied with the compensation package or if, for any reason, the compensation does not materialize according to the CA, he or she has the right to make a claim. There are three basic steps to resolve grievances, as depicted in Figure 8-3.
The first step is for a household or a group of householders to approach the Village Resettlement Committee (VRC) to present their grievance and allow its consideration at the lowest level of the resettlement hierarchy, where frequently issues can be resolved through discussions and adjustments. If the VRC cannot resolve the complaint or if the claimant is not satisfied with their decision, the next step can be taken, either by the claimant or the VRC on his/her behalf.

The second step is to present the grievance or complaint to a Grievance committee to be formed at the District level. This committee will be based in the District court, but will also have representatives from all relevant departments, as they will be in a good position to resolve issues brought to their attention by affected individuals. This Committee must respond to any claim within 15 days.

At this district level the NTPC’s RO and the GOL’s RMU would be primary witnesses in order to both;

(a) respond to the claimants grievance in terms of prior activities undertaken etc; and
(b) to ensure that the claim is reviewed within the context of the existing policy, regulations, procedures and entitlement limits, and that the compensation awarded does not go beyond established matter of practice or outside the limits of the budgets.

The findings of the Grievance Committee are binding on the RMU and RO. The Committee must maintain a public book showing all claims received and the decisions made, which must be made within 30 days. The Grievance Committee cannot award compensation that goes beyond what is established as a matter of practice or what would be outside the limits of the budgets within which they are operating. If the above action does not yield any results, then the claimant has the right to present their case to Provincial Court. Access to the Court is obviously a last resort. It will be in the interest of the RO and the RMU to resolve issues before they are brought to the Committee.

A conflict between RO and RMU would in the first instance be resolved at the RC level. If this is not acceptable to either party, then the matter will be reviewed by the Vice Prime Minister responsible for NT2. If still no agreement is reached, the matter shall be handled according to the Consultation and Dispute Procedures set forth in the CA.
While every effort will be made to resolve conflicts by mutual agreement of the parties involved, in some cases, arbitration and adjudication on disagreements and conflicts by an external mediator will be required. Responsibility for arbitration and the means of adjudication will vary according to the parties involved, but will need to be referred to a higher level of authority than the parties concerned. The strategy for this is outlined as follows:

<table>
<thead>
<tr>
<th>Parties to the conflict</th>
<th>Final decision/adjudication</th>
<th>Key mediator/arbiter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within village disputes</td>
<td>Majority decision of village meeting</td>
<td>Village Chief.</td>
</tr>
<tr>
<td>Disputes between Village</td>
<td>Joint agreement of appointed village representatives</td>
<td>Relevant district authority.</td>
</tr>
<tr>
<td>Village - RMU/district disputes</td>
<td>Joint agreement of both parties endorsed by province</td>
<td>Grievance Committee</td>
</tr>
<tr>
<td>RMU-district disputes</td>
<td>Joint agreement of both parties endorsed by province</td>
<td>Grievance Committee and Provincial authorities</td>
</tr>
</tbody>
</table>

### 8.8 Monitoring and Evaluation Framework

The objective of monitoring and evaluation under the SDP is to firstly, measure progress towards stated targets for income and compensation levels, and secondly, to identify problems and constraints so as to be able to make timely readjustments to plans. Different monitoring systems will be required for plateau resettlement and downstream Xe Bangfai compensation due to the unique needs of each program.
Monitoring will also be of two broad type - internal and external. Internal monitoring will be conducted by the GoL/RMU and the NTPC/RO as a tool to assist in identifying problems during implementation and making necessary adjustments. External monitoring will be conducted by teams of independent monitors, who will use the internal monitoring data and other information to provide recommendations on necessary changes to the plans.

8.8.1 Internal Monitoring of the Plateau Resettlement Program

To help ensure that the SDP is implemented successfully and that the villagers materially improve their livelihood after resettlement, a monitoring program will be implemented consisting of three components.

- Day-to-day activity-level monitoring will be conducted by the RMU and the RO. This internal monitoring will focus on the physical progress of resettlement implementation against the schedule in the approved Plan, and will monitor the progress of house construction, irrigation development, farm land preparation, water-supplies, etc.;
- Activity productivity monitoring, on a seasonal basis, whereby crop yields, fish yields timber and NTFP harvest etc and monitored and reported;
- Periodic socio-economic monitoring, to measure the progress being made towards achieving the income targets prescribed under the SDP. The focus of here will be on changes in livelihoods and the standard of living among the relocated people.

Socio economic monitoring will be the most challenging, as it is intended to monitor project outcomes in all resettled households to ensure that any particularly disadvantaged families are quickly identified and provided with assistance. A participatory monitoring approach has been adopted for at least three reasons:

- Firstly, to make the task of monitoring over 1,000 families a practical option, under the resources available to the RMU and RO.
- Secondly, to involve all affected households in measuring and analyzing their own progress towards their desired life styles, thereby developing their capacity to make management decisions about their own livelihood activities, farm enterprise-mix, income generation and household expenditure
- Thirdly (but closely related to point 2 above) to provide a vehicle for adult literacy and numeracy.

Household Livelihood Monitoring books have already been developed for piloting the process of recording information on a regular basis, with monthly summaries and an annual analysis of the outcomes. Die to the sensitive nature of this monitoring, the program will be implemented by the external monitors, although with assistance from District level GOL staff. Training will be given to all households in numeracy and literacy, and monitoring staff will make regular visits to check the entries, assist with problems and ensure the reliability of the information recorded. The type of information to be recorded by the resettlers themselves is summarized in Table 8-5 and detailed in Annex 8-1.
Table 8-5: Household Livelihood Monitoring Data Books

<table>
<thead>
<tr>
<th>Record</th>
<th>Type of information</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>Household numbers, age, sex, occupation and labour status</td>
<td>Annual</td>
</tr>
<tr>
<td>Asset inventory</td>
<td>House type and condition, household assets, tools and equipment</td>
<td>Annual</td>
</tr>
<tr>
<td>Subsistence needs</td>
<td>Family rice requirements per day, month and year based on family size</td>
<td>Annual</td>
</tr>
<tr>
<td>Consumption</td>
<td>Actual</td>
<td>Weekly</td>
</tr>
<tr>
<td>Livelihood</td>
<td>components</td>
<td></td>
</tr>
<tr>
<td>Land use</td>
<td>Land parcels, land area, land type, tenure status, and cropping patterns</td>
<td>Annual</td>
</tr>
<tr>
<td>Labour use</td>
<td>Labour allocation among livelihood options should be included in order to analyze returns to labour from different enterprises</td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td>Numbers, deaths, births, disposal and purchase of cattle, pigs, poultry and fish</td>
<td>Monthly</td>
</tr>
<tr>
<td>Production</td>
<td>Produce amount, price (received or imputed) and returns from each livelihood component and how the produce is used</td>
<td>as produced</td>
</tr>
<tr>
<td>Income</td>
<td>Source and amount of all household income</td>
<td>Monthly</td>
</tr>
<tr>
<td>Expenditure</td>
<td>Expenditure on all household needs including agriculture</td>
<td>Monthly</td>
</tr>
<tr>
<td>Other</td>
<td>Any other information the household wishes or is asked to record. N.B. for potentially vulnerable households (PVH)</td>
<td>Q/A</td>
</tr>
<tr>
<td>Income</td>
<td>Source and amount of all income from sale or barter</td>
<td>Q/A</td>
</tr>
<tr>
<td>Expenses</td>
<td>Category and amount of all household expenditure</td>
<td>Q/A</td>
</tr>
<tr>
<td>Savings</td>
<td>Amount and method of household savings</td>
<td>Q/A</td>
</tr>
<tr>
<td>Consumption</td>
<td>Type and value of all household consumption</td>
<td>Q/A</td>
</tr>
<tr>
<td>Rice supply</td>
<td>Rice supply balance sheet showing production, consumption, sales, purchase, borrowed and amount remaining</td>
<td>Q/A</td>
</tr>
</tbody>
</table>

The information collected will be used for the ongoing identification of vulnerable households, and for assessing the level and nature of support measures required. The information will also assist in identifying those activities that have higher than expected potential and those which are failing to meet expectations. These can be compared with the socio-economic situation of each household and thus provide an analysis of the suitability of different enterprises for different types of households.

This participatory monitoring system is already in use and being tested in the Pilot Village and will generate a considerable amount of valuable information, which, if necessary, can be used to modify the livelihood systems of other villages prior to their relocation. Adjustments and modification are being made on an ongoing basis and the participatory monitoring system will be well proven well before the relocation of the majority of plateau villagers.

Health Monitoring

The health of resettled villagers will also be monitored on a regular basis. Relevant provincial and district authorities will be engaged as partners in these monitoring activities, providing manpower and technical assistance to the program. Health monitoring will include environmental health aspects as well as mental health status (see Chapter 5).

Ethnic Group and Gender Specific Monitoring

Monitoring will include the collection of data based on ethnic group and gender-specific indicators. This involves disaggregating information based on the different ethnic groups on the Plateau (Brou, Bo, Sek, Vietic and others) to ensure that smaller and more vulnerable minorities, especially in villages of mixed ethnic identity, are monitored separately in order to assess progress and to identify problems in adjustment and adaptation. Gender specific monitoring will involve an ongoing evaluation of gender roles and the division of labour at the level of the household in order to ensure that either men or women are not overburdened by new tasks in relation to previous labour practices.

Monitoring during the construction period

The extended period of the construction of the NT2 dam and hydropower facilities (4-5 years) presents a number of particular threats and risks to the plateau-relocated villagers. A construction workforce of over 4,000 is anticipated, and it has been estimated that this total may increase four-fold when followers, such as family, traders, merchants and service providers are included. This large and diverse population will be
living and working in close proximity to the relocated villages and is likely to have a number of impacts, both social and economic, on them.

A transitional monitoring system to be implemented during the construction period has been designed and is already in operation for some components such as the UXO survey and clearance program, which has already begun. Information will be collected on the numbers and types of in and out-migrants during this period. Special attention will be placed on identifying the types and motives of camp follows in order to identify any potential socially-unacceptable activities which may develop. District authorities will be responsible for monitoring in and out-migration over the extensive construction areas. Training and capacity development is already being provided to district authorities by the RMU in preparation for their monitoring role.

8.8.2 Monitoring of the Xe Bangfai and other downstream area

A comprehensive monitoring program will be undertaken to monitor measure and assess relevant aspects of livelihoods and incomes in affected villages along the Xe Bangfai. The program will include surveys already planned and additional specific surveys to clarify and strengthen our understanding of impacts and their affects on livelihood conditions.

Monitoring will focus on three aspects.

- Firstly, establish baselines and them on going monitoring of populations in the area, including those households who are eligible (or potentially eligible) for each program.
- Secondly, to identify and measure downstream impacts of the Project to ensure that all impacts have been accounted for and that the severity of the impacts are no greater than the estimated severity used to calculate compensation levels.
- Thirdly, the results of implementing the compensation measures provided to affected families will be monitored. These two aspects will be monitored concurrently under combined monitoring programs for nine types of impacts identified. Baselines will be required for all of these potential impacts. Some have already been completed and all will be either updated or completed prior to COD.

Population monitoring

Previous population data has relied on GOL status and information gathered coincidently during the conduct of subject specific surveys. Within 1 year of Financial Close, a baseline census will be conducted in all potentially affected downstream villages. This will in effect be the cut-off date census for eligibility for involvement in the downstream compensation and development program. This census will be linked to the socio-economic monitoring program (below). At one year prior to COD, a second census will be undertaken, and a third at COD +4 years.

Socio-economic monitoring program

An extensive socio-economic baseline survey of the Xe Bangfai region was conducted in 2001. This survey collected information on three major livelihood areas: (i) socio-economic data, (ii) health and nutrition information and (iii) fisheries data. Details of the specific data to be collected and the results from the 2001 baseline are presented in Appendix N.

The survey covered a sample size of 15 families per village, amounting to 1,680 household respondents. Two years prior to COD, this survey will be repeated, but using a sample size of 25 % of households of each village, to provide the pre project baseline information. Two socio-economic monitoring surveys will be undertaken post COD, about 2 and then 4 to 5 years after COD.

Ethnic Group and Gender Specific Monitoring

As with the Plateau, monitoring will include the collection of data based on ethnic group to ensure that ethnic minorities (primarily Brou and related groups) are monitored separately in order to assess progress and to identify problems. Gender specific monitoring will involve an ongoing evaluation of gender roles and the division of labour.
Chapter 8: Risk Management Framework, Monitoring and Evaluation

Fisheries monitoring program

The 2001 survey obtained information on fisheries in both the socio-economic component of the survey and a dedicated fisheries component of the survey. Further surveys of the Xe Bangfai hinterland, the Nam Phit and the downstream Nam Theun fishers were conducted in 2003 and 2004. The result of these surveys have provided baseline data on which to develop the Xe Bangfai and downstream areas fisheries compensation strategy (see Volume 4).

The ongoing fisheries monitoring program will have two components:

(a) Recall surveys covering all villages, as follows:
   - FC to FC + 1, 2nd XBF, hinterland, Nam Phit and Nam Theun fisheries survey.
   - FC+3.5 to COD: pre COD fisheries baseline survey
   - COD - 1 to COD +5 : participatory monitoring in all villages
   - COD + 3: post project fisheries baseline.

(b) Framework village studies, in which the total village catch will be studied along side the current CPUE study, in about 25 villages.

Riverbank gardens monitoring program

A full inventory of riverbank gardens will be undertaken twice, prior to COD; (FC to FC + 1, and COD-1 to COD). At and following COD, village groups will be supported to undertake participatory monitoring of the Project Impacts in on the riverbank gardens, and provide 2 report per year to the project (to reflect the two type of cropping season for riverbank gardens - dry season, and early wet season.

In parallel, the project will support villages to maintain databases of the areas and productivity of re-established gardens supported by the project, and report twice yearly to the project.

Domestic water use monitoring program

A first survey was conducted in 2004, which led to a better understand of the types and seasonality of household water supply systems and water sources for all villages. This has been used by the Project to better predict likely impacts and to plan mitigation measures and compensation strategies.

A baseline survey will be undertaken from FC to FC+1. Following the implementation of the mitigation program, at COD to COD +1 a full survey will be conducted twice - one on the dry season and one in the wet season - to review the impact of the river of household water and the usefulness of the alternative domestic water supply systems provided by the project. This will also identify any remaining impacts and ensure that compensation has been adequate.

In parallel to this, NTPC will implement a water quality monitoring program, which will take samples from a couple of key location in the Xe Bangfai river.

Riverside assets and Erosion monitoring program

A preliminary inventory of riverbank assists was undertaken in 2004. In the 2005-2006 dry season a full inventory (baseline study) of assets will be undertaken which will in effect be cut off date/census for any riverbank assets which, if impacted by erosion, will be entitled to relocation assistance. A monitoring report will be required to be published once a year.

Erosion, and its effect on riverbank assets, will be monitored in two ways:
(a) NTPC will implement a cross section monitoring program at key points along the Xe Bangfai (see Chapter 41)

(b) Participatory erosion monitoring by each village, who will be trained to observe and report on erosion.

8.8.3 Independent External Monitoring

The Concession Agreement requires an independent assessment of whether the SDP’s objective of ensuring that its specific targets for Project Affected Persons have or will be reached and whether actions taken adequately address the mitigation and compensation requirements. These assessments will be made by two independent monitoring and evaluation bodies;

- An organization or team (IEM) of individuals with extensive experience in socio-economic survey and analysis, rural development and environmental impact assessment, composed of both Lao national and international experts.

- the World Bank Panel of Social and Environmental Experts (POE) who will act independently of both GOL and NTPC and in accordance with relevant World Bank guidelines, assess whether mitigation measures and resettlement procedures adequately protect both the environment and the interests of those affected by the Project.

The external monitoring and evaluation team

The independent external monitoring team (IEM team) will be engaged through a competitive bidding process, which will be open to both institutions, NGOs and individuals. Final selection will be made by the Resettlement Committee with recommendations from the RO and the RMU. Once engaged the IEM will report directly to the RC and submit a written report annually, plus other ad hoc reports as required.

This IEM will provide full time Lao staff to be on site, to assist and ensure that the data collected by NTPC and GOL are accurate and balanced. They will be supported by recurrent inputs from regional and international experts.

The main focus of the IEM will be to assess changes in the social and economic conditions of affected households. They will review and analyze all existing internal monitoring data, and will also collect additional information, as necessary, through additional surveys, studies, interviews and site inspections. Specific terms of reference for the IEM will be prepared, which will specify that they will be responsible for assessing, verifying and reporting on:

- the implementation of the resettlement obligations under the Concession Agreement, and the achievement of SDP objectives, of each party under the Concession Agreement;

- the changes in social and economic conditions of resettled households based on acceptable indicators developed for resettlers for income level, sources of income, food sufficiency, nutrition, basic health and education conditions, and the status of women and other vulnerable groups;

- the progress of resettlers in reaching household and village income targets, with special attention paid to the poorest of the poor, female-headed households and all other particularly vulnerable groups; and

- any other aspects of the resettlement process which the RC considers is necessary to monitor and evaluate at any particular time.

Panel of Social and Environmental Experts

A three member Panel of Social and Environmental Experts (POE) has been appointed by the GOL (CA Schedule 39) with the approval and guidance of the World Bank. The Panel of Experts comprises 3 members, each of international standing in their respective fields of: (i) environmental science, (ii) tropical forest and biodiversity conservation, and (iii) the social sciences. It is mandated to provide GOL an independent assessment and review of the environmental and social issues associated with the NT2 Project, as provided for in the Concession Agreement, Clauses 30.15 to 30.27
Any vacancy in the membership of the Panel of Experts may be filled by the GOL provided that the criteria above are satisfied and subject to NTPC having the right of veto to one out of any three qualified candidates put forward by GOL. The GOL may terminate the appointment of any member at any time.

The independence of the Panel of Experts is ensured by a number of guarantees:

- the explicit requirement in the Concession Agreement that the Panel of Experts must act independently of the GOL and NTPC and in a manner which, in the Panel’s own opinion, in accordance with the World Bank Guidelines, best protects both the environment and the interests of those affected by the NT2 Project;

- NTPC’s guaranteed funding commitment for the Panel of Experts up to an annual ceiling while the Panel of Experts is kept as a standing body;

- the requirement that the Panel of Experts be a standing body until the third anniversary of the Commercial Operations Date and thereafter, at the discretion of the GOL, be a standing body until the sixth anniversary of the Commercial Operations Date and, in any event, for the remainder of the Concession Period, be an ad hoc body which may be reconstituted from time to time at the direction of the GOL;

- the provisions that the qualifications, experience and independence of the individual members of the Panel of Experts cannot be challenged by NTPC;

- the provisions that the individual members of the Panel of Experts cannot be sued by NTPC in respect of any comment or recommendation made by them, whether made in accordance with the provisions of the Concession Agreement or not, even if made negligently and even if NTPC or another person suffers loss as a result of NTPC complying with that comment or recommendation;

- limiting the rights of NTPC to appeal a comment or recommendation of the Panel of Experts, requiring that there be three experts to hear the appeal and providing that all three experts may only find against a comment or recommendation of the Panel of Experts if they find a breach by the Panel of Experts of the requirements

- subject to compliance with requirements outlined in the CA, an ability to amend or overturn its previous comments or recommendations except in respect of matters referred to them.

The costs of the Panel of Experts, which the GOL is required to maintain as a standing body until the 3rd anniversary of the Commercial Operations Date and which it may, at its election, maintain thereafter as a standing body until the 6th anniversary of COD, are to be met by NTPC up to certain specified amounts until that date.

The Panel of Experts has a broader, more general remit than the EMET, and are required to provide an independent review of, and guidance on, the treatment of environmental and social issues associated with the NT2 Project as a whole. In fulfilling this duty the POE will make regular missions to the Project and report on:

- whether, in their opinion the parties have complied with their respective environmental and social objectives; and the World Bank Guidelines have been complied with in the amelioration or remediation of Unanticipated Project Impacts

- recommendations for remedial action in the case of considered non-compliance; and

- other comments or recommendations as they may deem appropriate.

Comments and recommendations of the POE as outlined in the Concession Agreement shall be binding on the NTPC. NTPC shall promptly implement or otherwise give effect to those comments and recommendations if the GOL has given notice to NTPC requiring that it implement recommendations made by the POE, as long as those comments and recommendations have been made:

- in respect of matters which are subject to the POE comments and recommendations
• in respect of a matter for which NTPC is responsible under the CA
• in accordance with the standards outlined in the CA to which the POE must follow
• in the form of a written report issued in accordance with the procedures for reporting outlined in the CA

The NTPC may dispute the recommendations made by the POE only in the specific circumstances, as outlined in Concession Agreement.

*********** * * * ***********

1 Introduction:
1. This Book is to be used by plateau resettlement families
2. Everything that written or entered into this book should must true.
3. Do not use this book in another way, or tear or damage it.

2 Calculation of rice requirement:
1. Rice requirement calculation for a family must be referenced to income and expenses, compared to annual requirement
2. Income and expense must be written down in income and expense table, every month.
3. Rates for rice requirement calculation are based on World Food Program’s standard; 500 g/person/day - uncooked sticky rice
   Thus is an average of requirement for > 15 years old: 600 g per day, and for < 15 years old: 400 g per day

2.1 Standard for Rice requirement calculation is follow to people in families

Example:  
<table>
<thead>
<tr>
<th>Age</th>
<th>No. people in family</th>
<th>Rice requirement calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rate</td>
</tr>
<tr>
<td>2 - 14 years</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>&gt; 15 years</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Your family:
<table>
<thead>
<tr>
<th>Age</th>
<th>No. people in family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt; No. 1-14 years</td>
</tr>
<tr>
<td></td>
<td>&gt; No. greater than 15 years</td>
</tr>
</tbody>
</table>

3 Information on family members
1: Name of head of family Mr / Mrs.____________________, Age/years, Occupation
2: Name of wife / husband____________________(______), Age/years, Occupation
3: Sum of people in family_____people, Death_____people, Leaved from family______people (last year)
   Sum of people in family currently present in family: _______people - listed below
   1. Mr/Ms________________________________, Age/years, Occupation
   2. Mr/Ms________________________________, Age/years, Occupation
   3. Mr/Ms________________________________, Age/years, Occupation
   Etc...

* Main labour_____people, female_____people; second labour_____people, female_____people
### 4 Inventories of the family

#### 4.1 Houses:

<table>
<thead>
<tr>
<th>roof type</th>
<th>floor type</th>
<th>floor area m²</th>
<th>wall type</th>
<th>age</th>
</tr>
</thead>
</table>

#### 4.2 Equipment for use in house

<table>
<thead>
<tr>
<th>asset</th>
<th>total no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Televisions</td>
<td>units</td>
</tr>
<tr>
<td>Radio</td>
<td>units</td>
</tr>
<tr>
<td>tape decks</td>
<td>units</td>
</tr>
<tr>
<td>Rice mill</td>
<td>units</td>
</tr>
<tr>
<td>Bicycles</td>
<td>units</td>
</tr>
<tr>
<td>Motorbike</td>
<td>units</td>
</tr>
<tr>
<td>Car</td>
<td>units</td>
</tr>
<tr>
<td>Engine Boat</td>
<td>units</td>
</tr>
<tr>
<td>Boat</td>
<td>units</td>
</tr>
</tbody>
</table>

#### 4.3 Equipment for Production

<table>
<thead>
<tr>
<th>asset</th>
<th>total no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>units</td>
</tr>
<tr>
<td>Own buffalo</td>
<td>head</td>
</tr>
<tr>
<td>Cart</td>
<td>units</td>
</tr>
<tr>
<td>Borrowed buffalo</td>
<td>head</td>
</tr>
<tr>
<td>Total of buffalo</td>
<td>head</td>
</tr>
</tbody>
</table>

#### 4.4 Paddy field area

<table>
<thead>
<tr>
<th>area</th>
<th>wet season</th>
<th>dry season</th>
<th>rent</th>
<th>borrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>ha,</td>
<td>ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area 2</td>
<td>ha,</td>
<td>ha</td>
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</tbody>
</table>

#### 4.5 Field area (crops and vegetables)

<table>
<thead>
<tr>
<th>area</th>
<th>wet season</th>
<th>dry season</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
<td>Area 1</td>
<td>ha,</td>
<td>ha</td>
<td></td>
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<tr>
<td>Area 2</td>
<td>ha,</td>
<td>ha</td>
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</tbody>
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#### 4.6 garden area(Perrenial Crop)

<table>
<thead>
<tr>
<th>area</th>
<th>wet season</th>
<th>dry season</th>
<th>Location</th>
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<tbody>
<tr>
<td>Area 1</td>
<td>ha,</td>
<td>ha</td>
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</tr>
<tr>
<td>Area 2</td>
<td>ha,</td>
<td>ha</td>
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</table>

#### 4.7 Fish pond:

<table>
<thead>
<tr>
<th>number</th>
<th>Area ha</th>
<th>Location</th>
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</thead>
</table>
### Summary of each months Crop production and sales

<table>
<thead>
<tr>
<th>No</th>
<th>Kind of Crop/Vegetable</th>
<th>Area Planted (ha)</th>
<th>Production (Kg)</th>
<th>Kept for seed (Kg)</th>
<th>Use in family (Kg)</th>
<th>Sold (Kg)</th>
<th>Value (Kip)</th>
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</table>

To month 12
### Summary of Animal Production

<table>
<thead>
<tr>
<th>Type of Animal</th>
<th>Sum from last year</th>
<th>Amount</th>
<th>Month 1/200</th>
<th>Month 2/200</th>
<th>Month 3/200</th>
<th>Month 4/200</th>
<th>Month 5/200</th>
<th>Month 6/200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cow</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Buffalo</td>
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<td></td>
</tr>
<tr>
<td>Pig</td>
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<td></td>
</tr>
<tr>
<td>Duck</td>
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<td></td>
</tr>
<tr>
<td>Chicken</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Goat</td>
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<td></td>
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<tr>
<td>Fish</td>
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**Amount**

<table>
<thead>
<tr>
<th>Animal caught</th>
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</table>

<table>
<thead>
<tr>
<th>Fish</th>
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<td></td>
</tr>
</tbody>
</table>

**Amount**
## Income from Sales or Barter

<table>
<thead>
<tr>
<th>Type</th>
<th>Month 1/200_</th>
<th>Month 2/200_</th>
<th>Month 3/200_</th>
<th>Month 4/200_</th>
<th>Month 5/200_</th>
<th>To month 12/200_</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sold</td>
<td>cost</td>
<td>total</td>
<td>Sold</td>
<td>cost</td>
<td>total</td>
</tr>
<tr>
<td>1. Vegetable Produce</td>
<td>&gt;</td>
<td></td>
<td></td>
<td>&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>Total</td>
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<td></td>
</tr>
<tr>
<td>2. Animal Raising</td>
<td>&gt;</td>
<td></td>
<td></td>
<td>&gt;</td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. NTFP</td>
<td>&gt;</td>
<td></td>
<td></td>
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<td>Total</td>
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</tr>
<tr>
<td>4. Fisheries</td>
<td>&gt;</td>
<td></td>
<td></td>
<td>&gt;</td>
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<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Trade</td>
<td>&gt;</td>
<td></td>
<td></td>
<td>&gt;</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
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<tr>
<td>6. Work undertaken</td>
<td>&gt;</td>
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<td>Total</td>
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<tr>
<td>7. Other</td>
<td>&gt;</td>
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<td>&gt;</td>
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<td>Total</td>
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<td>Total</td>
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</tr>
</tbody>
</table>

Note: The table above shows the income from sales or barter for different types of activities. Each row represents a different type of income (Vegetable Produce, Animal Raising, NTFP, Fisheries, Trade, Work undertaken, Other). The columns represent the months from January to December 200_. The table details the total sold, cost, and total for each type of income over the months.
## Chapter 8: Risk Management Framework, Monitoring and Evaluation

### Expense's (Out going) | Month 1/200 | Month 2/200 | Month 3/200 | Month 4/200 | Month 5/200 | To month 12/200
--- | --- | --- | --- | --- | --- | ---
| sum | cost | total | sum | cost | total | sum | cost | total | sum | cost | total | sum | cost | total | sum | cost | total
| Type | Kg | Kg/kip | Kip | Kg | Kg/kip | Kip | Kg | Kg/kip | Kip | Kg | Kg/kip | Kip | Kg | Kg/kip | Kip | Kg | Kg/kip | Kip |
| 1. Day to day use | | | | | | | | | | | | | | | | | | |
| Utensil | | | | | | | | | | | | | | | | | | |
| Food | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| 2. Agriculture | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| 3. Education | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| 4. Health | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| 5. Donation | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| 6. Other | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
### Summary of Income from Sales and Barter

<table>
<thead>
<tr>
<th>Type</th>
<th>Month 1-3/200_</th>
<th>Month 4-6/200_</th>
<th>Month 7-9/200_</th>
<th>Month 10-12/200_</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Animal raising</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. NTFP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fisheries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Trade</td>
<td></td>
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<tr>
<td>6. Work undertaken</td>
<td></td>
<td></td>
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<tr>
<td>7. Other</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
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</table>

### Summary of Expense's (Outgoing)

<table>
<thead>
<tr>
<th>Type</th>
<th>Month 1-3/200_</th>
<th>Month 4-6/200_</th>
<th>Month 7-9/200_</th>
<th>Month 10-12/200_</th>
<th>Total</th>
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<tbody>
<tr>
<td>1. Day to day use</td>
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<td></td>
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</tr>
<tr>
<td>2. Agriculture</td>
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<td>3. Education</td>
<td></td>
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<tr>
<td>4. Health</td>
<td></td>
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<td>5. Donation</td>
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<tr>
<td>6. Other</td>
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<td><strong>Total</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Money Remaining

<table>
<thead>
<tr>
<th></th>
<th>Month 1-3/200_</th>
<th>Month 4-6/200_</th>
<th>Month 7-9/200_</th>
<th>Month 10-12/200_</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Money Saving

<table>
<thead>
<tr>
<th>Type</th>
<th>Month 1-3/200_</th>
<th>Month 4-6/200_</th>
<th>Month 7-9/200_</th>
<th>Month 10-12/200_</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Home Saving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Debit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Summary of Rice Stock (Kg)

<table>
<thead>
<tr>
<th>Type</th>
<th>Month 1-3/200_</th>
<th>Month 4-6/200_</th>
<th>Month 7-9/200_</th>
<th>Month 10-12/200_</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Produce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Eat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. sell</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Buy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Borrow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Remain</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Summary of Consumed Produce

<table>
<thead>
<tr>
<th>Type</th>
<th>Month 1-3/200_</th>
<th>Month 4-6/200_</th>
<th>Month 7-9/200_</th>
<th>Month 10-12/200_</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vegetable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Rice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fruit</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Wild animal</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Water animal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 9
EMDP EXECUTIVE SUMMARY

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9 EMDP EXECUTIVE SUMMARY

9.1 CROSSCUTTING ISSUES FOR EMDPs

9.1.1 Introduction

Three documents have been prepared according to WB (OD 4.20, 1991) and ADB (Policy 1998 and BP/OM 2004) policies on Indigenous Peoples/Ethnic Minorities for the NT2 Project:

- **Nakai Plateau EMDP** (SDP, Vol. 2): Impact assessment and mitigation strategy is integrated into the RAP since all PAPs are Ethnic Minorities (EMs) on the Nakai Plateau.
- **Xe Bangfai EMDP** (SDP, Vol. 3): Impact assessment and mitigation frame for ethnic groups, including minorities, for the Xe Bangfai, as well as a draft policy framework for groups downstream of dam and for the Nam Phit, Nam Kathang and Nam Gnom.
- **Ethnic Minorities Policy Framework for Project Lands** (SDP, Vol. 4): Preliminary identification of EM communities in the vicinity of Project Lands, and a summary description of impacts due to construction camps, downstream channel, transmission lines and other construction activities.

The overall aims are to:

(a) To avoid adverse Project impacts and where unavoidable to reduce, mitigate and compensate such impacts;
(b) Significantly improve the livelihoods and standards of living of the ethnic minorities to be resettled on the Nakai Plateau; and
(c) Ensure that ethnic minority project affected persons in the downstream areas and on Project Lands (infrastructure) are adequately consulted, fully compensation and actively participate in mitigation activities.

The Banks’ policy states that groups with a distinct social and cultural identity from the dominant society may be classified as vulnerable or disadvantaged in the context of the development processes. Hence the necessity of identifying specific needs and aspirations through prior consultation in order to create conditions for participatory planning, implementation and monitoring, minimizing potentially adverse effects and encouraging developments that will lead to economic and social improvements. Considering a large portion of the affected people in the project area are minorities, the need for EMDPs is clear according to the policies of the banks.

In Lao PDR, the expression ‘ethnic minority’ is used to describe the numerous smaller ethnic groups residing in the country with culture, language and traditions which differ from the ethnic Lao majority and related groups. All groups to be resettled on the Nakai Plateau and a number of minorities in the downstream and project lands are covered by the Banks’ policy. Project planning requires the preparation of culturally appropriate plans, including a careful consideration of existing cultural practices and culturally sensitive consultations. By including local stakeholders in decision-making processes, many possible adverse impacts will be avoided, including distant relocation, in-migration, economic marginalization and threats to the social fabric of communities. Avoidance of dependency has been considered in terms of a number of livelihood options and infrastructure and service improvements that aim to significantly increase the standard of living in a sustainable manner.

9.1.2 Overview of Ethnic Minorities in Lao PDR and the Project Area

According to the Lao Constitution and laws, all ethnic groups have the right to preserve their own traditions and culture. No legal distinction is made between the 49 officially recognized ethnic groups and other hundred sub-groups in the country. In practice, however, lowland Lao culture and language of the majority is dominant in government, business and education. Buddhism and lowland values are influencing and changing traditional cultures of the various minorities. Classification of ethnic groups is challenging given the dynamic situation of cultural borrowing, assimilation, integration into the nation-state and migrations.
Table 9-1: Overview of Ethnic Groups in Lao PDR (Groups underlined are found in Project Area)

<table>
<thead>
<tr>
<th>Lao-Tai (8)</th>
<th>Austro-Asiatic (Mon Khmer) (30)</th>
<th>Sino-Tibetan (7)</th>
<th>Hmong-Iumien (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lao</td>
<td>Khoum</td>
<td>Lavi</td>
<td>Akha</td>
</tr>
<tr>
<td>Phou Tai/Thay</td>
<td>Pray</td>
<td>Pako</td>
<td>Hmong</td>
</tr>
<tr>
<td>Tai</td>
<td>Sing Mul</td>
<td>Krieng</td>
<td>Yao/Lanten</td>
</tr>
<tr>
<td>Lu (Lao)</td>
<td>Phong</td>
<td>Cheng</td>
<td></td>
</tr>
<tr>
<td>Gnuan (Yuan)</td>
<td>Then</td>
<td>Toun</td>
<td></td>
</tr>
<tr>
<td>Yang</td>
<td>Eudou</td>
<td>Nguan</td>
<td></td>
</tr>
<tr>
<td>Sek</td>
<td>Bit</td>
<td>Suey</td>
<td></td>
</tr>
<tr>
<td>Tai Neua</td>
<td>Lamet</td>
<td>Gnaheun</td>
<td></td>
</tr>
</tbody>
</table>

Table 9-1 provides an overview of ethnic minorities in the districts directly affected by the project. There are large populations of ethnic minorities, mostly Brou and related groups, in Nakai (27.8%), Gnommalath (47.9%), Mahaxai (39.3%) and Xe Bangfai (23.7%). The highest number of Vietic groups is in Nakai District (ca. 8.7% with 3.7% Tai Bo). There are also smaller populations of Vietic, Hmong or other minorities in all of the affected districts.

Table 9-2: Ethnic Minorities in Project Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Main Ethnic Minority Groups</th>
<th>Population</th>
<th>No. of Households</th>
<th>% of District Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khamkeut</td>
<td>Vietic (Kang, Khom, Kha)</td>
<td>1937</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hmong</td>
<td>1842</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Toum</td>
<td>269</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brou and related groups</td>
<td>208</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liha</td>
<td>115</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Nakai</td>
<td>Brou and related groups</td>
<td>5225</td>
<td>27.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vietic groups</td>
<td>1631</td>
<td>8.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tai Bo (former Vietic)</td>
<td>Ca. 700</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Gnommalath</td>
<td>Brou (Makong)</td>
<td>2192</td>
<td>42.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chali and Salui</td>
<td>292</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Palay (Pray)</td>
<td>113</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Mahaxai</td>
<td>Brou (and other Mon Khmer)</td>
<td>1,189</td>
<td>39.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slang (and other Vietic groups)</td>
<td>134</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>Xe Bangfai</td>
<td>Brou and related groups</td>
<td>876</td>
<td>23.7</td>
<td></td>
</tr>
<tr>
<td>Hinboun</td>
<td>Tai Bo (former Vietic)</td>
<td>Ca. 3200</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brou and related groups</td>
<td>881</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Thakhack</td>
<td>Brou and related groups</td>
<td>1955</td>
<td>585</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nguan</td>
<td>1444</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hmong</td>
<td>251</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Nong Bok</td>
<td>Brou and related groups</td>
<td>2</td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

9.1.3 Project Planning and Ethnicity

Measures have been taken to prepare a Culturally Appropriate Plan that includes the following planning objectives concerning ethnic minority issues:
• Acknowledgement of vulnerability and the need for specific interventions and additional measures for small ethnic minority groups, such as the Vietic and small Brou and Bo communities.
• Detailing of similarities and differences of the different communities in terms of food security and livelihood and focus on additional training and support during the transitional period for vulnerable groups.
• Securing land tenure and long-term rights to resources as a key issue for the long-term sustainability of minority communities. Legal documents, land certificates and the introduction of necessary legislation and decrees aim to secure the land and resources on the Nakai Plateau for resettlers and to guard against exploitation by outsiders.
• Relocation and site selection within or as close as possible to traditional administrative, cultural and spiritual boundaries in order to retain familiarity with the land and its resources and avoid cultural alienation and social disruption during resettlement and rehabilitation. Separate location for Vietic.
• The relocation process includes rituals and ceremonies, village layout according to kin relations and clan membership, house designs and re-establishing ritual and cultural centres.
• Inclusion of concerns and aspirations of affected peoples into project planning in order to influence project design, including relocation sites, livelihood options and mitigation alternatives.
• Ensuring a role for traditional organisations in order to facilitate the mitigation and resettlement process at the village and household levels.
• Capacity building and institutional strengthening programmes for local institutions and awareness programmes on culturally-sensitive approach to planning and implementation for GoL implementing agencies.
• Mitigation measures for ethnic minorities and specific additional measures for vulnerable groups included in RAP and mitigation budgets.

9.1.4 Legal Status

Lao PDR is in a transition period with regard to introducing legislature on land tenure and rights to utilize resources. Although the State owns the land in theory (Land Decree, No 99, Land Law 1997), the concept of utilization rights for farmers is similar to private ownership since sale, inheritance, lease and transfer are allowed. Thus, like most other places in the Lao PDR, the majority of the inhabitants on the Nakai Plateau have no legal land documents but rather access to housing and agricultural land has been traditionally based on usufruct rights.

It will be important that Nakai resettlers feel secure in the fact that they are permanent residents. Given their attachment to the land and the important role the land and its resources have in relation to their ethnic identity, customary tenure of indigenous communities some form of legal recognition is required under the banks’ policies. Prime Ministerial Decree 103 places the resettlement area under the management control of the resettlement population, including private, communal and commercial lands. Land will be registered and titles will be given to all resettlers, providing them with security of tenure. This is in accordance with the Draft Resettlement Policy due to be officially approved by the government shortly.

All ethnic groups living in the reservoir area as of August 2003, and those born subsequently to those living in the area, will be entitled to resettlement and livelihood benefits as outlined in the SDP. All Ethnic groups living on or with land and assets under Project Lands, and those along the Xe Bangfai whose livelihoods may be affected in some way will be entitled to compensation and full participation in mitigation programs.

There are three additional decrees or amendments to existing decrees in draft form that will address specific issues that are about to be introduced by the government: These are:
• Decree or amendment on giving the Nakai resettlers sole access to fisheries and forestry resources of the Nakai Plateau and reservoir;
9.1.5 Public Consultation Process

Public Consultation is the process involving stakeholder participation in project planning, implementation and monitoring, creating a ‘feed-back’ loop for information, referred to as Public Consultation, Participation and Disclosure (PCDP) in the context of the NT2 Project. Consultation can be divided into three phases: 1) information collection and dissemination, 2) eliciting stakeholder concerns, 3) active involvement in project design, and 4) implementation and monitoring.

How consultations have affected project design is one criterion in judging the ‘meaningfulness’ of the consultation process. Other criteria are the quality of discussion and the degree of disagreement or varying opinions. Records show that discussions were to a large extent open and transparent with villagers voicing their opinions, concerns, fears, mistrust and priorities on a number of occasions. Efforts were also made to understand the role of leadership and influential groups in the village and the social, economic and political dynamics of interaction on the village level.

In 2004 10 Village Facilitators in each project-affected village have been chosen and trained to facilitate the consultation at the local level and to ensure that the various interest groups are properly represented, including women, ethnic minorities and traditional leaders. These facilitators will be used for each consultation meeting and participate in the implementation of resettlement and mitigation.

9.1.6 Institutional Arrangements and Monitoring

Specific institutional arrangements have been developed, including the Resettlement Committee (RC) to oversee all activities and policy issues, the Resettlement Management Unit (RMU) that will act as the main co-ordinating and monitoring body, District Resettlement Working Groups (DRWGs) who will be responsible for carrying out the relocation and Village Resettlement Committees (VRCs) that will represent the interests of the villagers and mobilize the population. VRCs consist of village leadership and other skilled village members representing the different ethnic groups, but district level organisations are dominated by lowland Lao groups. Efforts will be made to recruit ethnic minorities whenever feasible as these organisations expand during implementation.

For resettlement to be successful, considerable technical and professional assistance will be required, especially in the initial phases. Adequate funds and a training program have been outlined in the SDP. The Pilot Village relocation has enabled planners to adjust plans and to test how the new organizational set-up is able to cope with its new responsibilities. Training for all GoL on ethnic minority awareness out and further training on consultation processes will be carried out.

Internal monitoring will be carried out by the RMU and the Resettlement Committee and experts and advisors in the NTPC Social Unit. External monitoring will be carried out on several levels, including an international Panel of Experts (POE) and an independent monitoring agency with relevant qualifications and experience will be hired. Social indicators will cover income, health status, education status and natural resource usage. Specific indicators will include desegregated data on ethnic minorities in order to ensure that potentially vulnerable groups and minorities are not disadvantaged or marginalised but rather become project beneficiaries. Gender aspects regarding the division of labour (time used for different activities) at the household level are also important monitoring indicators to ensure that women or men are not overburdened as a result of new livelihood activities.

9.1.7 Budgets and Schedules

All aspects of ethnic minorities discussed in the EMDPs have been incorporated into the RAP for the Nakai Plateau, the Mitigation Framework for the Xe Bangfai and other downstream areas, and for Project Lands. Special measures related to ethnic minorities include:
Chapter 9: EMDP Executive Summary

- External Monitoring arrangements for monitoring and evaluation of the different ethnic groups in relation to mitigation and compensation;
- Ethnic Minority Advisor for the Resettlement Management Unit (part-time);
- Provisions for training in Ethnic Minorities Awareness for RMU, DRWGs and RO staff as well as local GoL organisations involved in resettlement;
- Training and support for the Lao National Front for Construction (Responsible for Ethnic Issues);
- Incorporation of specific needs for relocation, including support for rituals and considerations for house styles, layout and other features;
- Cultural and spiritual heritage issues, including Physical and Cultural Resources Survey and mitigation measures;
- Provisions for vulnerable ethnic minority households and communities, in particular additional measures for villages with weak livelihood systems and low levels of income.

9.2 ETHNIC MINORITY DEVELOPMENT PLAN - NAKAI PLATEAU

9.2.1 Ethnic Baseline Data

Most ethnic groups in the Nakai Plateau villages (a total of approximately 7,200 people in 17 communities) can be classified as ethnic minorities under WB and ADB policies. All groups have a strong sense of belonging to the area in terms of utilization and dependence on natural resources and in terms of traditional territory. In addition, there are customary social and political institutions as well as cultural practices and beliefs shared by most the groups, which contrast with dominant culture in the lowlands. However, while most communities have a distinct sense of ethnic identity and some have distinct languages, dialects of Tai and Lao are now the most commonly spoken languages.

There are five main groups found on the Plateau, excluding the District Capital of Oudomsouk and the newly established surrounding areas.

- Brou (Makong) (ca. 45%), a homogenous Western Katuic group of the Austro-Asiatic language family, found throughout the region and exhibiting a number of livelihoods;
- Tai Bo (ca. 25%) were originally Vietic speakers but have adopted Tai languages and culture and a sedentary livelihood after contact with surrounding groups, illustrative of the dynamic cultural situation on the Plateau;
- Upland Tai groups (ca. 15%) consisting of a number of sub-groups such as Tai Men, Tai Moey, etc. who have recently arrived from Bolikhamsai Province, Khamkeut District;
- Vietic groups (ca. 12% of the population) consisting of a number of small ethno-linguistic groups belonging to the Austro-Asiatic language family, formally hunter-gatherers but now sedentary; and
- A few Sek households (ca. 3%), representing an ancient branch of the Tai-Kadai language family, who have entered the Plateau from the north.

Despite these ethnic categories, the culture on the Nakai Plateau can be described as a ‘melting-pot’ culture since there are dynamic processes of assimilation and adaptation at various levels. Not only is there influence from the dominant lowland Lao culture in the form of language, education, administration, Buddhism and economic development, there is also considerable borrowing of livelihood systems and languages among the various groups themselves.

The Plateau has historically been on various migration and trade routes, situated between the lowland areas and the forests of the north and Vietnam. The original inhabitants, the Vietic groups, have been influenced by the arrival of the Brou, Tai, Sek and Lao groups over a period of many hundreds of years such that it has become difficult to distinguish them apart. Intermarriage between groups is also common, with children adopting the ethnic identity of the father or in some cases being determined by location alone. There are similarities in belief systems and cultural practices, related to territorial spirits, ancestral spirits...
and aspects of ‘folk Buddhism’ from the lowlands. Villagers are served by a number of ritual experts and share similar procedures for establishing new households, erecting houses and establishing relations with the spirit world.

9.2.2 Nakai Plateau Livelihoods

The general socio-economic status of the Nakai Plateau has been investigated as part of the Census, Notification and Registration and Socio-Economic Survey of 1998. A final census just after Financial Close will form the baseline for on-going monitoring of social aspects of the Project. Cash and imputed incomes for reservoir households in 1998 are estimated to average US$ 449 per year. Plateau communities have a mixed economy of swidden and limited rain fed paddy rice production, vegetable gardens, livestock, fishing, gathering Non-Timber Forest Products (NTFPs) and hunting. The present resource base can be described as ‘diminishing’ in the sense that it is no longer sustainable due to reduced swidden areas and shorter rotation cycles, increased population, over-harvesting of NTFPs, disappearing wildlife and increased demand for consumer goods. Villagers on the Plateau now have to go further and further afield to collect NTFPs for cash income. In addition, the Plateau is prone to flooding and has been logged commercially over the past two decades.

Agricultural production is poor with annual harvest of upland rice being much lower than adjacent lowland areas – about 700 kg/ha compared to 1,500 kg/ha. Approximately only 17% of households are self-sufficient in rice production and over 30% have more than a six-month deficit. Livestock assets vary considerable with three villages owning over 60% of all buffalo. Most households have some livestock for consumption and sale but stocks are often subject to epidemics and veterinarian services are lacking. The gathering of NTFPs is a key economic activity and the main source of cash income. Recent over-harvesting of damar resin, fragrant bark and other products has made these activities more time-consuming and resulted in incursions into the adjacent conservation area. The exchange of NTFPs for rice is becoming more difficult, due to a relatively constant ratio of rice for resin and the scarcity of the latter, and this is threatening food security. Fishing provides the main source of protein.

Interactions between groups on the Nakai Plateau and surrounding areas has been ongoing for many centuries with trade in livestock, NTFPs, salt and other goods linking the mountainous areas and Vietnam with lowland areas. Change in the form of lowland Lao values, goods and beliefs have influenced the cultures on the Plateau, as has the integration of the area into the nation state and national economy.

9.2.3 Health and Education on the Nakai Plateau

The general health situation is poor. The leading causes of mortality are similar to those of the country in general: acute respiratory infections (ARI), diarrhoeal diseases and malaria. In addition, there are a considerable number of accidents caused by swidden-type agricultural practices. Drinking water is rarely boiled and there is little understanding of potential health problems. Meals consist of the stables, glutinous rice for calories, fish and some meat for proteins, and an assortment of cultivated and wild vegetables and fruits for vitamins. Child and maternal mortality rates are high and there is a lack of medical facilities, trained personnel and medicines. In Khammouane Province there is a ratio of one doctor per 4,798 persons.

49% of villagers on the Nakai Plateau are illiterate and over half of household heads have had no schooling. Functional illiteracy is probably a higher percentage with many not completing primary school due to poor facilities and lack of incentives. Many schools are not functioning properly and there is a scarcity of teachers for remote villages. Most women are illiterate and none of the ethnic languages or dialects are written. There is a flexible division of labour with household tasks divided among men and women. Women are primarily responsible for children and providing food for the family.

9.2.4 Local Participation on the Nakai Plateau

Consultation teams, consisting of local government officials, trained by experts, have used various methods to solicit villagers’ opinions concerning livelihood options and the resettlement process, including visual aids and suitable topics for discussion (translators were used when necessary). Feedback from 1997-98 consultation meetings and discussions has been incorporated into the SDP and include:
• The decision to remain on the Plateau instead of relocation in the lowland areas resulted in the formulation of a RAP for the Plateau;
• Alterations in house designs to suit the needs and aspirations of the PAPs;
• Modifications of the livelihoods systems, including the re-introduction of rice, fishing and other elements to broaden the livelihood options and basis for income;
• Village layouts and configurations were or may be modified after considerations of clan and kin relations;
• Relocation will occur after consultations with village leaders and ritual experts in order to fulfil traditional requirements;
• Separate relocation sites for the Vietic groups on the Nakai Plateau and Tai groups in Bolikhamsai.

The 2004 Consultations further identified areas of concern and collected suggestions for additional mitigation and modifications of proposed resettlement activities. Most suggestions were already part of the SDP but those that are feasible and covered by the Concession Agreement will be investigated further. Resettlement site visits and finalisation of village layouts and initial agreement on livelihood options will be carried out in late 2004.

9.2.5 Mitigation Measures for the Nakai Plateau

Suitable sites are being selected for new villages and agricultural areas based on a combination of technical criteria (available water supply, soil quality, location of forests, etc.) and villager criteria (preference for relocation within existing village territories, close to roads and services, ethnic group solidarity and with kin as neighbours). House designs also illustrate the value of the consultation process. First traditional house designs and construction were studied and proposed designs were drawn up. These were then discussed with villagers and modifications made in detail before a final design was agreed upon.

The proposed new livelihood options are designed to intensify, enhance or modify existing agricultural practices such as fishing, NTFP collection, rice production and livestock. The introduction of new livelihood options such as irrigated agriculture, reservoir fishing and community commercial forest management will requires considerable technical assistance for a transition from the present reliance on swidden cultivation and forest product collection.

All households will be offered a basic package of a farm and house plot, and a share of forestry enterprise dividends, plus be given the option to freely choose other supplementary enterprise such as fisheries, livestock raising, forestry employment and small businesses. However, there is a clear income target (cash and imputed) that resettlement villagers will, by the end of year five, have at least the Lao average national rural poverty line per person (as calculated by the National Statistics Centre) and by year 8 target income levels of US$ 1,201 per household, nearly three times higher than existing average incomes for Plateau households. Special measures will be introduced to deal with disadvantaged households, such as those without enough manpower, female-headed households, elderly and infirm. Special considerations will also be made for the Vietic groups whose reliance on the surrounding natural resources is important to their ethnic identity, as well as some of the smaller Bo and Brou hamlets along the Nam Theun in the centre of the Plateau. Other villages are either larger with more resources or located on Road 8B.

Planned infrastructure investments include roads to all new village sites, electricity supplies to all households, household and irrigation water supply, health interventions and improvements in education through extension work, training and literacy programs. Details for all service improvements are to be worked out before implementation. Special attention will be given to the needs of women in project planning, including provisions for improved livelihood choices, health and education requirements and reducing the time and energy spent on domestic chores.

Regarding cultural heritage, the relocation of important artefacts and religious objects has been taken into consideration in planning. Respect for local practices in moving and for beliefs in the spirits form part of the RAP. If any ‘chance finds’ occur during the construction phase, authorities from the National Culture
and Information Offices will be notified and consultation will be arranged with relevant communities for development of culturally acceptable relocation as required.

9.3 ETHNIC MINORITIES DEVELOPMENT PLAN FOR THE XE BANGFAI AND DOWNSTREAM AREAS

9.3.1 Ethnic Baseline Data

Ethnic minorities along the Xe Bangfai (XBF) have a population of about 15,400 (2003) and can be divided into main two groups: lowland groups (Lao, Phou Thay, Lao Kaleung and Tai groups) and minorities (Brou and related groups). Most communities are lowland groups (ca. 90%) and integrated into the mainstream economic system, identify themselves with the majority culture, speak the Lao or similar languages, practice ‘Folk Buddhism’ and have rain-fed or irrigated rice production. The minority Brou (less than 10%) have similar production systems, practice a mix of Buddhism and animist beliefs and are undergoing a gradually cultural assimilation into Lao, some even identifying themselves as Lao Loum or lowland Lao. Many, however, still refer to themselves as Brou, speak the Brou language and practice some Brou traditions. Intermarriage between all groups is common and there is a shared set of cultural practices that merge Buddhist and local traditions together. Integration is ongoing in all downstream areas. In the Middle XBF a number of Brou are Christian. However, both Buddhism and Christianity exist side by side with spirit beliefs.

66 Hinterland villages, that is non riparian villages reliant on fishing in the Xe Bangfai, with a total population of approximately 7,400, have been identified. 10 villages have populations with ethnic minorities.

No villages are located between the dam site and the headpond of the Theun-Hinboun Project but a number of villages have been identified as fishing in the Nam Theun. Further investigations are ongoing. Along the Kathang and Nam Gnom and adjacent areas relying on these rivers for drinking water, domestic use and fishing, households from 48 villages, of which about 40% are Brou and related groups, have been identified. Surveys have identified about 2,366 households fishing in the Nam Phit, from 36 villages, some close to and some more distant from Nam Phit. Of these about 45% are minorities.

9.3.2 Downstream Livelihoods

The socio-economic conditions in the downstream communities indicate that agriculture, including fishing and livestock, accounts for about 60% of household income on average. Wages and pensions accounted for 28%. This reveals that the downstream economy in general terms appears to be more diversified than that of the Nakai Plateau and more integrated into the mainstream economy. In relation to ethnicity, Lao-Tai and Brou communities share similar livelihood systems with variation depending on location to natural resources, infrastructure, level of technology and flooding. However, the poorest villages in terms of agricultural production, food security and income have a high proportion of Brou villages, reflecting the fact that many Brou villages are located in more remote areas, have fewer services, lower levels of technology and skills, and less access to markets.

9.3.3 Downstream Health and Education

In general, it can be stated that the health status is “fair to poor”, better than on the Nakai Plateau due to the fact there are safer supplies of water, somewhat better sanitation facilities and easier access to medical treatment. However, many of the same problems that plague downstream communities are prevalent on the Plateau and characteristic of the country as a whole. 5.2% of those questioned during the 2001 Health Survey reported an acute illness with at least one member of the household with little variation between zones. One can conclude that the population suffers from ill health at a higher rate than the average for the country, significantly affecting economic and educational aspects of communities’ welfare.

31.6% of the adult population were reported to be illiterate but in all probability, there are more who are functionally illiterate, having only attended a few years of school and not practiced reading and writing. Only a very small portion of the population has received skills training and only 12.4% have attended secondary school and about 6% have progressed beyond secondary school.
9.3.4 Local Participation in the Downstream

A similar rationale and approach to participatory planning to the Nakai Plateau has been employed in the downstream communities. The first comprehensive round of consultation was held in 1997, concentrating on dissemination of information and obtaining feedback on concerns and expectations as well as detailed data about possible project impacts on agricultural production. Villagers revealed that they had understood the explanations in that they suggested a number of key preferences, such as land for land compensation, proper compensation for loss of all structures and cemeteries, irrigation potential, improved transportation, health improvements, guaranteed access to opposite banks for grazing and training and income generation schemes. Most of these ideas have been incorporated into the Mitigation Process Framework.

In 2004 a second round of consultation is planned with the intention of explaining in detail all project impacts and mitigation strategies in order to incorporate views and concerns whenever technically and economically feasible. A manual for facilitators has been developed for this round which includes providing information on water quality and flow, predicted positive and negative impacts, mitigation processes, structure of compensation and grievance procedure.

9.3.5 Mitigation Process Framework for the Downstream

Given the fact that many of the impacts in the downstream cannot be predicted completely, a mitigation framework is outlined and key areas identified in terms of potential impacts and possible mitigation strategies (see Table 9-3). Each mitigation strategy is explained in terms of when and why this particular strategy would be necessary, required inputs, monitoring objectives and possible further mitigation measures to ensure that any negative impacts are fully dealt with. Special provisions and support will be given to minority villages (Brou) and poor communities with low incomes and reliance on natural resources, such as forests and rivers (fishing).

In addition, there are a number of planned health and infrastructure measures. The downstream is also covered by a regional health improvement plan. Infrastructural improvements will consist of a number of access roads along the Downstream Channel, upgrading of existing roads and expansion of the existing grid.

<table>
<thead>
<tr>
<th>Table 9-3: Potential Impact and Possible Mitigation Strategy for the XBF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential Impact</strong></td>
</tr>
<tr>
<td>Increased water flow in the XBF</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Riverbank slumping and erosion</td>
</tr>
<tr>
<td>Changes in water quality</td>
</tr>
<tr>
<td>Loss of fisheries</td>
</tr>
<tr>
<td>Loss of access to grazing areas, gardens and fields</td>
</tr>
<tr>
<td>River safety issues</td>
</tr>
</tbody>
</table>

9.4 Ethnic Minorities Policy Framework for Project Lands

9.4.1 Impacts on Ethnic Groups and Mitigation for Project Lands

Project Lands refer to all project impacted areas due construction activities. This includes road construction and upgrades, camps, quarries, spoil tips, project structures (downstream channel, powerhouse, saddle dams, etc.) and transmission lines. Apart from the downstream channel, physical impacts are not expected to be significant. A mitigation framework outlines how losses are assessed, the
procedure for compensation and resettlement and mitigation. The issues directly related to ethnic minorities and vulnerable groups are presented in Table 9-4.

Table 9-4: Main Project Lands Impacts and Ethnic Groups

<table>
<thead>
<tr>
<th>Main Project Lands Impact Areas</th>
<th>Main Ethnic Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phou Phako Quarry, access road and Road 8B</td>
<td>Main groups are Tai Meuy and recently resettled Hmong with one Vietic village, Pakkatan.</td>
</tr>
<tr>
<td>Saddle dams, Intake Structure and other construction activities in and around Oudomsouk</td>
<td>42 households are Brou and related groups and three are Vietic in Oudomsouk town while the remaining 145 are lowland groups.</td>
</tr>
<tr>
<td>Downstream Channel, powerhouse site, camps, access roads, spoil locations and other construction activities on the Gnommalath Plain</td>
<td>There are approximately 950 households located in villages in these impacted areas. About 60% are Brou and related ethnic minorities.</td>
</tr>
<tr>
<td>115 kV Transmission Line and Road 12 from Thakhek to southern turn off to Mahaxai and access roads</td>
<td>There are approximately 13,400 persons living in villages along this transportation corridor, of which 60% are Brou and related ethnic minorities.</td>
</tr>
<tr>
<td>500 kV Transmission Line from turnoff to Thakhek to Savannakhet and access roads</td>
<td>10 of the 36 villages along this transmission line are Brou and Chalui ethnic minorities.</td>
</tr>
</tbody>
</table>

Specific interventions for the different ethnic minorities include:

- Compensation is to include all types of land usage, including rotating swidden fields presently under cultivation and those fields that are lying fallow;
- Avoidance of religious and cultural sites if possible and full presentation of options, such as removal of structures or replacement and well as detailed consultations with religious leaders and ritual specialists;
- Indirect impacts from the transportation corridor extending from Lak Sao (Vietnamese Border) over the Nakai Plateau and on to Thakhek and Thailand – awareness and prevention programmes will include HIV/AIDS awareness, traffic safety, trafficking and illegal wildlife trading;
- Consultations in minority languages and culturally-sensitive approaches to mitigation;
- Halting government resettlement programmes and options for Vietic groups to development livelihoods in or nearby the Nakai-Nam Theun NBCA (linkages with the Watershed Management and Protection Authority programmes for Vietic groups in the SEMFOP-1);
- Livelihood development options for Hmong groups in order to relieve pressure on the natural resource (base linkages with Buffer Zone activities in the SEMFOP-1);
- Ethnic mapping of Oudomsouk Town and options for Nakai villagers in the town to return to their natal villages and qualify for resettlement benefits.

9.4.2 Physical and Cultural Resources

A Physical and Cultural Resources (PCR) Survey was carried out in 2004, identifying all possible impacts on cultural and historical sites on the Project Lands. Impacts associated with construction activities include loss of land, alteration of air quality, noise, vibration, aesthetic degradation of landscape, change of water quality and restriction of access. Influx of construction workers and associated in-migration could result in some damage, deterioration and unacceptable exposure to historic sites, spirit sites, temples, and cemeteries. The inundation of the Nakai Plateau will result in the abandonment and loss of some PCR, including spirit sites and cemeteries. Other impacts include pressure on land and restriction or loss of access due to project infrastructure and increased rates of riverbank erosion along the Xe Bangfai.

A PCR plan has been developed to address or minimise any adverse impacts the Project may have on these PCR. This includes awareness programmes, relocation and compensation and support for appropriate rituals and ceremonies. Adjustments to the Project design, where practical and possible, to minimize impacts and risks to identified PCR will be carried out. There is also a procedure for “chance finds” involving documentation and identification, awareness programmes for the construction workforce and notification and stoppage according to qualified experts. The RMU will incorporate the PCR Survey results into the resettlement programme for village monasteries, temples, stupas, grave sites and historical
artefacts will be relocated to the new village or new buildings on the Nakai Plateau. The same procedure for chance finds will apply along the Xe Bangfai during the operating phase.

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Appendices in Volume 1

Appendix A: Concession Agreement - relevant clauses and schedules
A1: Schedule 4, Part 1, Social and Resettlement
A2: Schedule 7, Part 2, Termination Obligations

Appendix B: Safeguards Policies of International Financial Institutions
B2: World Bank OD 4.20: Indigenous People
B3: World Bank OP 4.11: Cultural Property
B4: ADB Policy (BP) Involuntary Resettlement (OM Section F2/BP, 29 October 2003);
B5: ADB Operational Procedure (OP) Involuntary Resettlement (OM Section F2/OP, 29-10-03)
B6: ADB Policy on Indigenous Peoples

Appendix C: National Legal and Policy Documents
C1: The Constitution (August 14, 1991)
C3: Land Titling Regulations
  C3.1: Land Parcel Registration System (996/MoF)
  C3.2: Systematic Adjudication (997/MoF)
C4: The Forestry Law, No. 004 (October 11, 1996)
  C4.2: PM’s Decree 59 on Sustainable Management of Production Forest Areas (22 May 2002)
  C4.3: Regulations on Establishment and Sustainable Management of Production Forest
       (0204/MAF, 3 October 2003)
C5: The Water and Water Resources Law, No. 005 (November 11, 1996)
C6: The Electricity Law No. 02 – 97 NA Effective August 29, 1997)
C7: Road Traffic Law (April 3, 1999)
C8 Decree 102/PM (July 5 1993) on the Organization and Administration of Village
C9: National Resettlement
  C9.1: National Policy on Resettlement and Compensation (Draft)
  C9.2: Decree on Resettlement and Compensation (Draft)
  C9.3: Technical Guidelines for Resettlement and Compensation (Draft)

1 Translations of legislation documents into English are not official.
Appendix D: Legal Instruments specific to the NT2 Project (Social Component)

D1: Prime Minister Decree on the establishment of the Nakai-Nam Theun NBCA Corridor Area, NT2 Project Reservoir Area, and Resettlement and Forest Area for people affected by the Project, No. 193/PM, dated 19/1/2001

D2: (Supplementary) Decree on the approval of the allocation of the resettlement of the resettlement and forest area to people and village organizations affected by Nam Theun 2 Project for carrying out forestry business activities, No. 37/PM, dated 12/4/2002

D3: Authorization to the Provincial Authority to Issue the permit and supervise the establishment of Nakai Plateau Village Forest Association of NT2 Project, No. 0063/MAF, dated 29/4/2002

D4: Regulation on the establishment and Management of Nakai Plateau Village Forestry Association, No. 484/KM.GOV, dated 13/6/2002

Appendix E: Comments from IAG and POE on the RAP (up until 2001)

Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

Appendix G: Bibliography (up until 2002)
APPENDIX A.1
CONCESSION AGREEMENT -
SCHEDULE 4 PART 1: SOCIAL COMPONENT

1 Definitions and interpretation

1.1 Concession Agreement definitions to apply

Words and expressions defined in clause 48.1 of the Concession Agreement shall have the same meaning in this Part, including:

Accounting Standards, Business Day, Commercial Operations Date, Community Forestry Area, Company, Concession Period, Construction Phase, Construction Phase Commencement Date, Construction Works, Consultation and Dispute Procedures, CPI, Dam, Development Costs, Dispute, Downstream Channel, Environmental and Social Objectives, Environmental and Social Plans, Escalation Formula, Facility, Financial Close, GOL, GOL NT2 Coordination Office, GOL Project Completion Date, GOL Transmission Assets, Good Operating Practices, Government Authority, Head Construction Contract, Head Construction Contractor, Lao PDR, Lao PDR Court, Lao PDR Law, Nam Theun 2 Land Decree, National Assembly, National Assembly Standing Committee, Operating Phase, Panel of Experts, Project, Project Land, Reservoir, Reservoir Area, Resettlement Area, Shareholders Agreement, Sponsors and Transmission System.

1.2 Definitions

Subject to clause 1.1 and unless the contrary intention appears, the following words have the following meanings when used in this Part:

Average Rural Income Per Person means the Lao PDR Kip indicator per person of this title calculated by the National Statistics Centre from time to time.

BPKP means the GOL owned development company, Bolisat Phattana Khet Phoudoy (Mountainous Area Development Company).

Claimant has the meaning given to that term in clause 13.4(a).

Concession Agreement means the concession agreement made between the Government of the Lao People's Democratic Republic and the Company of which this Schedule 4 forms part.

Decision on the Appointment of the RC means the Decision on the Appointment of the Nam Theun 2 Project Resettlement Committee No. 64/PMO dated 4 November 1998.

Detailed Village Plans has the meaning given to that term in Part 6 of clause 7.

District Resettlement Working Groups or DRWGs have the meanings given to those terms in clause 4.

Fixed Scope, for the budget classification of an obligation appearing in this Part, means that such an obligation is of the type referred to in clause 30.7(a)(ii) of the Concession Agreement for which the estimate or budget is for internal Company budgeting purposes only and that
the physical quantities and quality levels of infrastructure and equipment as contemplated under this Schedule are based on:

(a) the number of families to be resettled being 886;

(b) the average number of individuals per household being 5.518;

(c) the total number of individuals to be resettled being 4,889; and

(d) any variations to the quantities referred to in (a), (b) or (c) above being in accordance with the results of the changes determined by the eligible population survey and registration to be undertaken by the RMU during the Village Development Planning Stage under clause 7.1.

GOL Resettlement Assets means those assets referred to as GOL Resettlement Assets in Schedule 2 to the Concession Agreement.

Grievance Committee has the meaning given to that term in clause 13.7(a).

Grievance Procedure means the procedure set out in clause 13.

Household Income Target means the yearly target for the income of Resettler households, including income in cash and in kind to be reached at the beginning of year 5 of the Resettlement Implementation Period, being for each Resettler household in the Resettlement Area, the greater of:

(a) the then current National Rural Poverty Line, multiplied by the number of persons in the household; and

(b) Lao PDR Kip 1,420,800 per person, multiplied by the number of persons in the household (this being the equivalent to USD 800 per average household in June 2002, using the exchange rate of Lao PDR Kip 9,800 = USD 1 and average household size being 5.518 persons).

Limited by Cost, for the budget classification of an obligation appearing in this Part, means that such an obligation is of the type referred to in clause 30.7(a)(i) of the Concession Agreement as being “limited by cost” so that the financial liability of the Company, when performing that activity itself or when funding the GOL if the GOL elects to perform that activity, shall be limited to the indicated budget amount.

National Rural Poverty Line means the Lao PDR Kip indicator per person of this title, as calculated by the National Statistics Centre from time to time.

National Statistics Centre means the National Statistics Centre of the Lao PDR.

NPFO means the Nakai Plateau Forestry Organisation referred to in Part 7 of clause 9.

NT2 Resettlement Policy means the English translation of the NT2 Resettlement Policy attached as Attachment A hereto.

Project Affected Persons means the persons falling within the categories set out in clause 14.

Regulating Dam means the regulating dam which comprises part of the Project as referred
to in Schedule 23 of the Concession Agreement.

**Regulating Pond** means the regulating pond which comprises part of the Project as referred to in Schedule 23 of the Concession Agreement.

**Resettlement Committee** or **RC** means the resettlement committee of the GOL for the Project, established by the Decision on the Appointment of the RC, and as reconstituted by the GOL from time to time.

**Resettlement Implementation Period** has the meaning given to that term in clause 2.1(c).

**Resettlement Objectives** has the meaning given to that term in clause 3.1.

**Resettlement Planning Period** has the meaning given to that term in clause 2.1(b).

**Resettlement Pre Financial Close Period** has the meaning given to that term in clause 2.1(a).

**Resettlement Process** means the planning and implementation of entitlements and measures to mitigate and/or compensate the Project Impacts, including but not limited to compensation, relocation and rehabilitation of Project Affected Persons as described in this Part.

**Resettlement Process Period** means the period of the Resettlement Process comprising the Resettlement Pre Financial Close Period, the Resettlement Planning Period and the Resettlement Implementation Period, as the same may be extended in accordance with clause 2.4(a).

**Resettlement Provisions** has the meaning given to that term in clause 3.2.

**Resettlement Regulations** means the regulations to be issued by the RC under the NT2 Resettlement Policy.

**Resettlement Works** means the preparation, planning and implementation of resettlement activities to be carried out by the parties as defined in clauses 7 to 12.

**Resettlers** means those persons who are required to relocate their homes as a result of the Project in accordance with the Nam Theun 2 Resettlement Policy.

**RMU** has the meaning given to that term in clause 4.3.

**RO** has the meaning given to that term in clause 4.6.

**Social and Environmental Remediation Fund** has the meaning given to that term in clause 15.4.

**Village Development Plans** has the meaning given to that term in Part 3 of clause 7.

**Village Income Target** means the yearly target for the income of Resettler villages, including income in cash and in kind, to be reached at the end of the Resettlement Implementation Period, being for each village in the Resettlement Area, the greater of:

(a) the then current Average Rural Income Per Person, multiplied by the number of persons in the village; and
(b) Lao PDR Kip 2,131,200 per person, multiplied by the number of persons in the
village (this being the equivalent of USD 1200 per average household in June 2002,
using the exchange rate of Lao PDR Kip 9,800 = USD 1 and the average household
size being 5.518 persons).

Village Resettlement Committees or VRCs have the meanings given to those terms in
clause 4.5.

1.3 Interpretation

(a) In this Part:

(i) references to clauses are to the clauses of this Part unless they are specified
to be clauses of the Concession Agreement or of another Part or Schedule
of the Concession Agreement;

(ii) references to this Part are to this Part 1 of Schedule 4 of the Concession
Agreement unless they are specified to be some other Part or Schedule,
including this Schedule 4, to the Concession Agreement;

(iii) the Attachments to this Part in all respects form part of this Part and any
obligation or right of a party set out in an Attachment hereto is in all
respects an obligation or right of that party under this Part;

(iv) if a provision of this Part is inconsistent with any provision of the
Concession Agreement, the provision in the Concession Agreement shall
prevail; and

(v) subject to the preceding paragraphs in this clause 1.3, clause 48.2 of the
Concession Agreement applies to the interpretation of this Part.

(b) This Part 1 in all respects forms part of the Concession Agreement and any
obligation or right of a party set out in this Part is in all respects an obligation or
right of that party under the Concession Agreement.

(c) Clause 30.4(b) of the Concession Agreement addresses the requirements of the
parties as to the interpretation of the Environmental and Social Objectives and the
extent to which regard may be had to the findings, reports and recommendations of
the Environmental and Social Plans.

2 Duration of the Resettlement Process

2.1 The Resettlement Process shall comprise the following three stages:

(a) the period (the "Resettlement Pre Financial Close Period"), being the period prior to
the occurrence of Financial Close for resettlement, which commenced in the year
1994 and will end on the occurrence of Financial Close;

(b) the period (the "Resettlement Planning Period"), being the period for planning the
resettlement, which will commence on the occurrence of Financial Close and end on
the date agreed by the Resettlement Committee and the Company as being the date
for the commencement of the Resettlement Implementation Period, the
Resettlement Planning Period being expected to continue for about one year after
the Financial Close during which time mainly planning activities as described in clauses 7, 9 and 11 will be performed; and

(c) the period (the "Resettlement Implementation Period"), being the period for implementation of resettlement activities, which will commence on the date agreed by the Resettlement Committee and the Company as provided in paragraph (b) and end when the RC is satisfied, on advice from the Panel of Experts, that the Resettlement Objectives and Resettlement Provisions have been achieved. During the Resettlement Implementation Period mainly implementation activities, as defined in clauses 8, 10 and 12, will be performed as well as all of the remaining planning activities not previously performed or completed during the Resettlement Planning Period as provided in paragraph (b).

Detailed information in respect of the Resettlement Process is set out in clauses 7 to 12.

2.2 Without limiting the provisions of clause 2.1(c), the parties intend that the Resettlement Implementation Period will be approximately nine (9) years in duration.

2.3 Without limiting the role of the Panel of Experts in reviewing the resettlement component of the Environmental and Social Objectives as contemplated under clause 30 of the Concession Agreement, the parties agree that at least six (6) months before the expiry of the intended Resettlement Implementation Period, the GOL shall engage the Panel of Experts at the Company’s cost, and in accordance with clause 30 of the Concession Agreement, to:

(a) review the activities performed during the Resettlement Implementation Period; and
(b) analyse whether the Resettlement Objectives and Resettlement Provisions have been achieved in accordance with this Part.

2.4 If the Company is unable to demonstrate to the Panel of Experts that the Resettlement Objectives and Resettlement Provisions have been achieved in accordance with this Part, the GOL may require that:

(a) the Resettlement Implementation Period be extended for such period as is recommended by the Panel of Experts; and

(b) recommendations of the Panel of Experts designed to achieve the Resettlement Objectives and Resettlement Provisions in accordance with this Part be implemented at the Company’s cost.

3 General obligations of the parties

3.1 Parties to comply with and implement the NT2 Resettlement Policy and to further the Resettlement Objectives

The parties agree to comply with and implement the NT2 Resettlement Policy to further the objectives referred to in Article 1 thereof in the course of implementing the Resettlement Process, those objectives being to:

(a) improve and ensure sustainable livelihoods for the Resettlers;

(b) have the Resettlers participate in the consultation, planning and design process of their new settlement and production areas;

(c) apply special measures as required towards ethnic minorities and vulnerable persons
to take care of their needs and foster self-reliance;

(d) provide for the construction of infrastructure in the Resettlement Area in accordance with the standards set out in this Part for the best interests of the local population and the population in and around the Resettlement Areas;

(e) materially improve the standard of living of the Resettlers and improve the incomes of the Resettler households above the National Rural Poverty Line;

(f) make replacement land available to all those interested with cash compensation only to be considered for those with specific plans to permanently move out of the district; and

(g) conceive and execute resettlement and rehabilitation plans as specific development plans,

(together the "Resettlement Objectives").

### 3.2 Parties to comply with and to implement the Resettlement Provisions

The parties agree to comply with and implement the following provisions ("Resettlement Provisions") namely that:

(a) the Company is responsible for:

(i) providing funding for the implementation of the resettlement activities consistent with the quantity and quality of the entitlements and measures set out in this Part;

(ii) providing prompt and adequate compensation to the Resettlers and the other Project Affected Persons in accordance with the NT2 Resettlement Policy and this Part, with such compensation being based on the principle of actual full replacement or the payment of full replacement cost; and

(iii) providing for any other costs associated with mitigating the social effects of the Project on any Project Affected Persons, in accordance with this Part.

(b) the Resettlers must be given every opportunity to have their living standards and income earning capacity promptly improved to at least the National Rural Poverty Line, and be provided with adequate support during the Resettlement Implementation Period;

(c) resettlement must be avoided or minimised where feasible;

(d) cooperation, opinion, and advice from Project Affected Persons is essential to the Resettlement Process and will be sought;

(e) assistance from international experts is also essential to the Resettlement Process and such experts will be engaged;

(f) the social cohesion of villages will be protected and resettlement sites will be as near as possible to the previous villages of the Resettlers;

(g) traditional organisational structures, religious beliefs and resource use will be recognised and respected;
(h) appropriate consultation and participation methods are to be used, utilising local knowledge in developing production systems that suit the Resettlers’ needs and environment and which avoid dependency on the Project or any Government Authority;

(i) housing and community buildings will be provided at all resettlement sites, and reasonable access to all weather roads provided where practicable;

(j) water and electricity will be brought to all houses;

(k) the Resettlement Process will be transparent; and

(l) the provisions as stated in Article 4 and 5 of the NT2 Resettlement Policy.

3.3 The sharing of responsibilities between the GOL and the Company for achieving these Resettlement Objectives and complying with these Resettlement Provisions is set out in this Part and in particular in clauses 7 to 12.

3.4 The parties agree to use their best endeavours to facilitate:

(a) the Resettler households reaching the Household Income Targets; and

(b) the resettlement villages reaching the Village Income Targets.

4. Institutional Responsibilities for resettlement

4.1 NT2 Resettlement Organization
4.2 GOL Resettlement Committee

(a) The GOL, through the Resettlement Committee, shall have overall responsibility for directing, guiding, and managing the Resettlement Process in accordance with this Part and for the following tasks, namely:

(i) preparing plans and policies relating to resettlement to achieve the Resettlement Objectives;

(ii) coordinating with the GOL NT2 Coordination Office in relation to the Resettlement Process;

(iii) allocating roles and responsibilities for relevant agencies involved in the Resettlement Process, including the RMU, the District Resettlement Working Groups and the Village Resettlement Committees as well as the RO;

(iv) preparing and issuing the Resettlement Regulations and internal rules;

(v) monitoring and supervising the implementation of the obligations of both the GOL and the Company with respect to the Resettlement Process, including by reviewing and providing no-objections or approvals (as RC considers appropriate) to activities to be carried out by RMU, RO and other implementing Government Authorities and other agencies engaged by the GOL;

(vi) appointing an independent monitoring agency to perform the functions specified in clause 5.4

(vii) facilitating transparency and accountability of management and activities undertaken under the RC’s supervision;

(viii) liaising with external organisations on resettlement issues relating to the Project;

(ix) resolving issues arising among various Government Authorities and the Company relating to the Resettlement Process, including disputes which may arise between the RMU and the RO provided that if a party is not satisfied with the decision of the RC then that party may within fourteen (14) days of that decision being notified to it, by notice to the other party, require that the matter be treated as a Dispute and that it be resolved in accordance with the Consultation and Dispute Procedures, but if that party does not so give that notice, the decision of the RC shall be complied with;

(x) distributing entitlements to Project Affected Persons in accordance with this Part (and as otherwise provided for under the Grievance Procedure);

(xi) setting an annual budget with the participation of the Company for resettlement based on the funds provided from different sources and more particularly from the Company in compliance with the work plans and policies mentioned above;

(xii) providing guidelines for allocation of the budget in an efficient and transparent manner; and
(xiii) undertaking such other tasks consistent with the Resettlement Objectives as are determined by the Resettlement Committee from time to time.

(b) The RC has the right to review and approve all Resettlement Works as part of a quarterly, six monthly, annual or ad hoc plan prepared by the RMU or the Company in accordance with paragraph (c) before they are undertaken.

(c) Each plan submitted by the RMU and the Company as contemplated in paragraph (b) will detail, for the RC’s consideration:

(i) the Resettlement Works already completed and the Resettlement Works to be carried out during the period of that plan with reference to and in accordance with the scope of works defined in clauses 7 to 12;

(ii) the corresponding budget for the period of that plan in accordance with the amounts specified in clauses 7 to 12; and

(iii) in the case of the RMU, the necessary funding for the activities of the RC, the RMU, the DRWGs, the VRCs and the other Government Authorities, as part of the budget item (f) in clause 15.6(c) and detailing in particular:

(A) all costs associated with the implementation of approved Resettlement Works including salaries/wages for staff engaged by RMU (those salaries/wages being as set by the Resettlement Committee);

(B) the per diem allowances (to cover meeting fees, accommodation, travelling costs and daily expenses as appropriate) for days or part days worked on matters related to the Resettlement Works:

(ii) for members and staff of the RMU, the DRWGs and VRCs and other Government Authorities with responsibility for implementing the Resettlement Works whose positions are not covered by Schedule 22, as calculated in accordance with the per diems set by the Resettlement Committee;

(C) the facilities for the RC, the RMU, the DRWGs and VRCs and other Government Authorities with responsibility for implementing the Resettlement Works, including vehicles, office and communication facilities, office supplies for the RMU and DRWGs.

(d) In the event that the GOL, through the RC, forms a view that the Company or the RO, the RMU, a Village Resettlement Committee, a District Resettlement Working Group or other implementing agency is failing, or has failed, to implement an obligation it has under this Part then the RC may require remedial action to be taken in accordance with the Concession Agreement to ensure that the relevant obligation is implemented to its reasonable satisfaction.
4.3 **GOL Resettlement Management Unit**

(a) The GOL, through its Resettlement Management Unit (the "RMU"), shall be responsible for:

(i) the day to day management of the Resettlement Process in accordance with the general policies and specific directions of the Resettlement Committee;

(ii) organising, coordinating and facilitating Government Authorities to participate in resettlement planning including in the preparation and implementation of the obligations set forth in this Part;

(iii) coordinating, together with the Company, through the RO, the planning and implementation of the Resettlement Process;

(iv) carrying out public consultations throughout the Resettlement Process and generally keeping Project Affected Persons informed about the Resettlement Process;

(v) managing the designated GOL implementation budget for the Resettlement Process;

(vi) obtaining and allocating resettlement budgets to District Resettlement Working Groups, and through them, to Project Affected Persons or to other agencies (public or private) directly involved in implementation of the Resettlement Process;

(vii) providing guidance and training from various institutions for Government Authorities involved in the Resettlement Process;

(viii) organising community participation and new skills training for Project Affected Persons;

(ix) monitoring the implementation by each party of its obligations for the Resettlement Process (including the physical progress of all resettlement components in each district) and ensuring the program is completed within the agreed time schedule;

(x) together with the District Resettlement Working Groups, coordinating civil works with the RO, organising technical training from various institutions for Project Affected Persons, organising the Project Affected Persons to develop their allocated land, and arranging the logistics for the physical move;

(xi) actually relocating the Project Affected Persons;

(xii) organising Project Affected Persons to carry out designated activities under the Resettlement Process;

(xiii) ensuring that the LWU is able to facilitate the Resettlement Process in particular by addressing women in development issues and initiating income generating activities targeted to women;

(xiv) participating in the Grievance Procedure as contemplated by clause 13.6; and
undertaking such other activities as the RC may determine from time to
time.

(b) The RMU shall report to the RC and seek assistance from the RC, as required, to ensure the implementation of each party’s obligations.

(c) Without limiting paragraph (b), the RMU shall obtain the RC’s approval or no-objection for all resettlement planning and budgeting activities and procurement proposals, before proceeding to implement such activities or proposals by submitting plans to the RC as provided for in clause 4.2(b).

4.4 GOL District Resettlement Working Groups (DRWGs)

(a) Five (5) district resettlement working groups ("District Resettlement Working Groups" or "DRWGs") have been established in the Nakai, Gnommalath, Mahaxai and Khamkeut Districts, and one in Savannakhet Province (mainly concerned with impacts from the Transmission Lines).

(b) The District Resettlement Working Groups shall be directly responsible, under the direction of the RMU, for implementing the relocation and rehabilitation work in their district or, as the case may be, province, including:

(i) carrying out consultations on resettlement entitlements among Project Affected Persons;

(ii) organising and facilitating the process of identifying Resettlement Sites, designing village layout and plot allocation and distribution;

(iii) organising the implementation of the livelihood program for the villages, and coordinating related training activities;

(iv) arranging logistics for the relocation and providing relocation and transitional assistance;

(v) providing progress reports to the RMU and the district governments;

(vi) participating in the Grievance Procedure as contemplated by clause 13.5; and

(vii) supervising the Village Resettlement Committees.

4.5 GOL Village Resettlement Committees (VRCs)

The GOL, through the village resettlement committees appointed by each village on a consensus basis ("Village Resettlement Committees" or "VRCs"), shall be responsible for the following under the direction of the relevant District Resettlement Working Group:

(a) representing the interests of the village;

(b) public consultation with their village in relation to the Resettlement Process;

(c) coordinating with mass organisations at village level in relation to the Resettlement Process;

(d) developing Village Development Plans for their village;
(e) monitoring and evaluating the Resettlement Process in their village;

(f) organising villagers in implementing relocation and agricultural development (including selection of village sites); and

(g) participating in the Grievance Procedure as contemplated in clause 13.4.

4.6 Resettlement Office of the Company (RO)

The Company, through its resettlement office (the "RO"), shall be responsible for the following under the direction of the RC:

(a) monitoring the implementation of the Company’s obligations under this Schedule and ensuring that they are implemented;

(b) providing quarterly reports to the RC in the form required by the RC on status of resettlement activities being carried out;

(c) coordinating closely with the RMU the planning and implementation of the Resettlement Process;

(d) liaising and cooperating in good faith with the Government Authorities responsible for resettlement including the RMU at the working level;

(e) seeking the RC’s approval/no-objection for all activities the RO proposes to undertake prior to undertaking such activities by submitting plans to the RC as provided for in clause 4.2(c); and

(f) complying with all reasonable guidelines, policies and directions issued by the RC from time to time in accordance with the NT2 Resettlement Policy and within the funding obligations of the Concession Agreement in relation to the Resettlement Process.

5 Monitoring of the Resettlement Process

5.1 Monitoring to be undertaken until Resettlement Objectives fulfilled

Internal and independent external monitoring of the Resettlement Process will be undertaken by the parties in respect of a resettlement activity in accordance with this clause within one year of the commencement of that activity until the later in time of:

(a) the expiry of the Resettlement Process Period; and

(b) the time at which it can be demonstrated to the reasonable satisfaction of the Resettlement Committee, with the advice (if the Resettlement Committee deems appropriate) of the independent monitoring agency and the Panel of Experts, that the Resettlement Objectives and the Resettlement Provisions have been achieved and maintained for a reasonable period of time.

5.2 Internal monitoring by the Company

The Company through the RO shall:
(a) monitor the performance of the Company’s obligations relating to the Resettlement Process;

(b) take steps to rectify any failure by the Company to perform, in whole or in part, its obligations relating to the Resettlement Process;

(c) report regularly to the Resettlement Committee, as required, on the status of the performance of such obligations; and

(d) monitor the expenses of the Company and check that the expenses of the GOL are in accordance with the budget agreed in accordance with clauses 15.2 and 15.3.

5.3 Internal monitoring by the GOL

(a) The GOL, through the Village Resettlement Committees and District Resettlement Working Groups, shall compile and provide to the RMU monthly reports for each village based on information provided by the Resettlers and the other Project Affected Persons, including activities completed, funds allocated and spent, relocations completed, development tasks completed and community activities completed.

(b) The GOL, through the RMU, shall undertake, or may engage a third party to undertake, a comprehensive baseline socio-economic survey of a sample of the Project Affected Persons to serve as a reference point for independent external monitoring provided that the sample of households shall be carefully stratified geographically (for example according to village locations), ethnically and according to living standards and access to labour and resources and special attention should be paid to the poorer households, including female-headed households.

(c) The survey to be undertaken under paragraph (b) shall take into account criteria such as quality and maintenance of housing, appropriate public health criteria, household furnishings, cooking, heating, lighting, water supply, waste disposal and productive assets, as well as internationally acceptable indicators for income level, sources of income, food sufficiency and nutrition, basic health and education conditions, the status of women and similar such criteria.

(d) The GOL, through the RMU, shall monitor progress in the preparation of villagers for the physical move, the move, the post-move settling in phase and the livelihood and community development stages and incorporate in its monitoring program appropriate measures to allow the Project Affected Persons to identify positive and negative impacts arising from the Resettlement Process as they occur.

(e) The GOL, through the RMU, shall monitor the GOL’s expenses.

(f) After Financial Close, the GOL, through the RMU, shall check that the expenses of the Company are in accordance with the budgets provided for in this Part.

5.4 Independent monitoring

(a) The GOL, through the RMU in consultation with the Company and with approval from the RC, will engage an independent monitoring agency with relevant qualifications and experience including in social surveys. This independent monitoring agency will be a Lao team managed with the technical assistance of an international expert who will train and guide the Lao personnel. This agency shall be required to:
ensure that pre-project socio-economic and health surveys of the Project Affected Persons on the Nakai Plateau are adequate benchmarks for monitoring during the Resettlement Implementation Period;

(ii) ensure that the pre-project socio-economic and health surveys of Project Affected Persons in the downstream areas are adequate benchmarks for monitoring during the Resettlement Implementation Period;

(iii) ensure that the pre-project baseline studies of the fish population in those stretches of the Nam Theun River and its tributaries which are to be inundated by the Reservoir and downstream areas and the appropriate monitoring program of fish migrations and fishing activities in the Reservoir and downstream areas are adequate benchmarks for monitoring during the Resettlement Implementation Period; and

(iv) monitor and evaluate the Resettlement Process on an annual basis and at other times as reasonably required by the Resettlement Committee including, without limitation:

(A) the implementation of the resettlement obligations of each party under the Concession Agreement;

(B) the changes in social and economic conditions of Resettler households (based on internationally acceptable indicators developed for Resettlers for income level, sources of income, food sufficiency and nutrition, basic health and education conditions, status of women and similar such criteria);

(C) the progress of Resettlers in reaching the Household Income Target and the Village Income Target with special attention paid to the poorer households and female-headed households;

(D) the achievement of the Resettlement Objectives and Resettlement Provisions; and

(E) any other aspects of the Resettlement Process which the RC considers it is necessary to monitor and evaluate from time to time.

(b) The independent monitoring agency engaged under paragraph (a) shall report to the Resettlement Committee on its findings.

(c) The Company and the GOL shall give the independent monitoring agency full cooperation and provide it with access to all relevant data, documentation, program activities and sites to facilitate the effective monitoring and evaluation of the Resettlement Process.

(d) Notwithstanding paragraph (b), the Company shall be responsible for funding the costs associated with the appointment of the independent monitoring agency in accordance with clause 15, but payment shall be made to the GOL, who shall effect payment to the independent monitoring agency. The GOL will provide details of the costs, together with supporting documentation, and the Company shall provide such funding to GOL on a timely basis to allow prompt payment of the independent monitoring agency.

(e) The GOL through the RMU shall make available to the Company and, with the RC's
approval, to other interested parties (on request), annual progress reports, annual reports and other reports of the independent monitoring agency.

6 Scope of Works - General

6.1 Scope of works in clauses 7 to 12

The scope of works for the resettlement activities of the Company and the GOL is detailed in the following clauses:

(a) clause 7 dealing with the village development activities to be carried out mainly during the Resettlement Planning Period;

(b) clause 8 dealing with the village development activities to be carried out mainly during the Resettlement Implementation Period;

(c) clause 9 dealing with the livelihood development activities to be carried out mainly during the Resettlement Planning Period;

(d) clause 10 dealing with the livelihood development activities to be carried out mainly during the Resettlement Implementation Period;

(e) clause 11 dealing with the community development activities to be carried out mainly during the Resettlement Planning Period; and

(f) clause 12 dealing with the community development activities to be carried out mainly during the Resettlement Implementation Period.

6.2 Organisation of clauses 7 to 12

A chart of the organisation of clauses 7 to 12 is as follows:

<table>
<thead>
<tr>
<th>Clause No.</th>
<th>Resettlement Period</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Resettlement Planning Period</td>
<td>Village</td>
</tr>
<tr>
<td>8</td>
<td>Resettlement Implementation Period</td>
<td>Village</td>
</tr>
<tr>
<td>9</td>
<td>Resettlement Planning Period</td>
<td>Livelihood</td>
</tr>
<tr>
<td>10</td>
<td>Resettlement Implementation Period</td>
<td>Livelihood</td>
</tr>
<tr>
<td>11</td>
<td>Resettlement Planning Period</td>
<td>Community</td>
</tr>
<tr>
<td>12</td>
<td>Resettlement Implementation Period</td>
<td>Community</td>
</tr>
</tbody>
</table>

6.3 Additional information in clauses 7 to 12

(a) Clauses 7 to 12, in addition to the detailed scope of each resettlement activity, indicate also:
the party, being either or both of the Company or the GOL, which is responsible for implementing and completing that activity with, where that responsibility rests with both parties, the mark "XL" being used in the "Responsible Party" column to indicate the party which is responsible for leading and co-ordinating the implementation and completion by both the GOL and the Company of that activity.

(ii) whether that resettlement activity is subject to a budget amount which is expressed to be Limited by Cost or a budget amount which is expressed to be Fixed Scope; and

(iii) the time schedule for each resettlement activity with its starting date and its completion date, both calculated either from the occurrence of Financial Close, or with fixed calendar date when occurring before Financial Close.

all of the budget amounts in clauses 7 to 12 being summarised in clause 15.

(b) For the avoidance of doubt, this Part does not include budget allocations for personnel of the Company or the Contractors (which shall be met by the employer of those personnel).
7 Village Development: Planning Stage

Summary of the resettlement activities for this stage and the responsible party

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Population survey and registration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 The RMU undertook a population and asset count and register of Project Affected Persons in October 1998.</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Complete</td>
</tr>
<tr>
<td>1.2 The RMU undertook a comprehensive baseline socio-economic survey of a sample of Project Affected Persons in October 1998, to serve as a reference point for external monitoring in accordance with clause 5.4.</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Complete</td>
</tr>
<tr>
<td>1.3 Before the actual relocation of the Resettlers, the RMU will undertake a further population and asset count and update the register as appropriate to ensure that all persons entitled to compensation under the NT2 Resettlement Policy receive their entitlements. Without limitation, the RMU will amend the register to reflect: the natural growth of the Resettler households (including children in registered households who may have formed new families after the initial registration process but excluding the relatives of a spouse who previously resided outside the area); the fifty-one families which moved to Phonpanpek at the request of BPKP (who shall not be provided with houses nor with irrigation water but who shall be entitled to all other entitlements for Resettlers as provided in clause 14 such as infrastructure facilities (including, without limitation, clinics, electricity, water supply, toilets and the livelihood program); the households of any government employees who have been assigned to the area since the initial registration process and whose house and/or physical livelihood assets will be affected;</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 3 months</td>
</tr>
</tbody>
</table>
### Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td></td>
</tr>
<tr>
<td>The RMU must not allow persons in the following categories to be included in the register: people, other than government employees, who move into the affected area and buy property that has already been registered as affected property; or people who move out of the affected area before the Resettlement Implementation Period commences. That register will be the basis of eligibility for Project Affected Persons to be compensated in accordance with this Part.</td>
<td>X</td>
<td>Included in the Company's development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 3 months</td>
</tr>
<tr>
<td>1.4 The RMU will put all data from the population and asset count, and baseline socio-economic survey on an electronic database and make it available through RMU to all interested parties for the purpose of furthering the knowledge of development issues relating to the population provided that privacy of individuals and individual households must be protected at all times.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Survey village land areas and suitability (irrigation and soil condition)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 The RO, with assistance from the RMU, shall undertake detailed surveys of the Resettlement Areas and report to the RMU on suitability of the Resettlement Areas including on: suitability for agricultural development; accessibility; availability of year-round water supply; proximity to the Reservoir Area (due to Resettlers’ stated preferences) and the land being within an area where the risk of erosion is minimised.</td>
<td>XL</td>
<td>Included in the Company's development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
<tr>
<td>2.2 The Company must ensure that sites it identifies as suitable for Resettlement: are above 538 masl (full supply level of the Reservoir) and houses are to be located above 540 masl; are sufficient for approximately 8 families (0.5 hectares per family, 4 hectares); have reasonable access to the Reservoir all year round for fishing access, i.e. near land about 525.5 masl, the minimum level of the Reservoir; have reasonable access to a draw-down</td>
<td>XL</td>
<td>Included in the Company's development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and description</td>
<td>Time Schedule Start Date - Completion Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>area of useable size and slope;</td>
<td></td>
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<tr>
<td>have reasonable access to an all weather road;</td>
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<tr>
<td>minimise the distance of relocation;</td>
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<tr>
<td>allow the growing of rice where economically and environmentally feasible;</td>
<td></td>
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<tr>
<td>allow access to forests and non timber forest products; and</td>
<td></td>
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<tr>
<td>allow access to suitable grazing land.</td>
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</tr>
<tr>
<td>3 Plan village locations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 The RO, in close consultation with the RMU and district authorities,</td>
<td>XL</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
<tr>
<td>shall prepare village location options on topographical maps,</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>showing houses, plots and infrastructure (&quot;Village Development Plans&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Consult villages on village location and other matters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 The RMU agrees to consult Resettlers on the Village Development Plans</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
<tr>
<td>proposed by the RO, and to seek input and advice as to preferences from</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>the Resettlers in relation to those.</td>
<td></td>
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</tr>
<tr>
<td>4.2 The parties agree that the primary factor in determining size and</td>
<td>X</td>
<td>No budget</td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
<tr>
<td>location of the resettlement villages must be the preference of the</td>
<td></td>
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<tr>
<td>Resettlers themselves, linked to the capacity of the sites to provide</td>
<td></td>
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<tr>
<td>the necessary economic opportunities.</td>
<td></td>
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</tr>
<tr>
<td>4.3 The RMU will advise the RO of the Resettlers’ input and advice,</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
<tr>
<td>which shall be taken into account by the RO.</td>
<td></td>
<td></td>
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<tr>
<td>5 Prepare and move pilot village</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.1 At least one month prior to commencement of each activity related to</td>
<td>XL</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Jan 01 – Financial Close</td>
</tr>
<tr>
<td>the pilot village planning and implementation process, the Company must</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>submit for RC approval or no-objection (as the RC considers appropriate),</td>
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<tr>
<td>a detailed proposal for planning, budgeting, procurement of works and</td>
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<tr>
<td>services and implementation of the pilot village, and must</td>
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<tr>
<td>implement such activities only in accordance with the approved detailed</td>
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<tr>
<td>proposal.</td>
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<tr>
<td>Without limitation, the proposal should</td>
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</tbody>
</table>
include a detailed plan for the following activities:

Select an existing village and the resettlement relocation site in conjunction with GOL, RC, RMU, Provincial and District officials and affected villagers.

Conduct topographical and soil surveys of new location. Develop initial cropping proposals. Train agricultural extension advisers on techniques relevant to selected crops. Prepare, in an iterative and consultative manner, a master plan for village layout. Indicate on plans the extent of clearing and levelling required. Mark on plans ground clearing and levelling guide marks, particularly for cropping areas.

Request selected village Resettlers to carry out clearing and levelling program for a significant portion of their normal crop in the new location (i.e. redirection of their normal activity). Agricultural extension advisers begin training programs. Initial crop planting in new fields by some Resettlers using their own labour. Seed/seedlings, implements and any irrigation water needed to be supplied by the Company.

Crop guarantees provided by the Company via GOL/RC/RMU against specific targets (i.e. if Resettlers comply with agricultural extension advisers’ suggestions, the Company will offset in kind any shortfalls which occur below pre-agreed conservative production targets).

Repeat and extend this activity over next dry and wet seasons.

Engage Resettlers on house-plot clearing and levelling activities on rice-for-work program.

Arrange appropriate land use rights certificates for individual farms and house plots.

Build houses, community buildings and other village infrastructure using available village labour on a rice-for-work basis with support of building advisers and any necessary additional labour.

Organise health checks program.
### Activities

| Build additional infrastructure elements with sub-contractors (wells, electricity distribution, irrigation systems, special buildings). |
| Move villagers and belongings to new site at a rate of 5 to 10 families per week. |
| Commence livelihood development program to improve living standards. |
| Monitor success of livelihood models being used. |
| Interactive fine-tuning of further infrastructure and agricultural extension requirements to assist in progressive income, social and environmental targets being achieved. |

Overarching all these activities is the advancement of RC/RMU/DRWG/VRC initial administrative activities including, in particular, training needs assessment, preparation of income support guidelines, compensation guidelines, training issues, outcomes monitoring procedures, information campaigns and the various other responsibilities. The recruitment/secondment of the initial core staff for the RC/RMU/DRWG/VRC bodies will be a vital component of the overall implementation.

The establishment of the Nakai Plateau Forestry Association under paragraph 7 of clause 9 is fundamental to the forestry component of the livelihood model and this is in turn an essential component of that model. NPFO type activities are essential in any pilot village from its very first days.

### Prepare detailed site plans and plot plans

6.1 The RO shall prepare detailed physical layouts for each village, and actual layouts for individual household plots ("Detailed Village Plans").

Each Resettler household shall be allocated a 0.5 hectare plot comprising:

- a 0.25 hectare house lot with access to water to be utilised as follows:
  - 100 - 200 m² for house and other structures;
  - 200 - 400 m² for vegetable production, growing such crops as pumpkin, rape seed, lettuce, tomato, cucumber, beans, peas, cabbage,

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company (RO)</td>
<td>X</td>
</tr>
<tr>
<td>GOL (RMU)</td>
<td>Included in the Company's development budget (item (b) - Limited by Cost)</td>
</tr>
<tr>
<td></td>
<td>Nov 02 – Financial Close + 6 months</td>
</tr>
</tbody>
</table>
### Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

#### Activities

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company (RO)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOL (RMU)</td>
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</tbody>
</table>

**squash and others;**

- **1900 - 2200 m²** for fruit trees, including such species as citrus (lime, lemon), banana, mango, jack fruit, logan and other marketable fruits; and

- 0.25 hectare forage plot (50 metres by 50 metres each) with access to water for production of animal feed, mainly green maize and Napier grass.

The vegetable area is assumed to produce about 100 kg of green vegetables equivalent per year per 100 m² utilised.

The RO agrees to take into account the following preferences of Resettlers in the process of preparing site plans and plot plans:

- relocation of households within their current village boundaries;
- orientation of the new village along roads with each house having access to the road;
- improvements such as electricity, access to running water and toilets to be privately owned and not communally shared;
- garden area for each household;
- non-residential buildings such as the school, dispensary, pump-house, village hall and religious structures to be located outside the grouping of houses as they usually are in traditional villages; and
- paddy or fields for growing crops such as corn, sugar cane or larger plots for vegetables to surround the village.

### Consult with villages on the plans

<p>| | | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>7</td>
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</table>

#### 7 Consult with villages on the plans

7.1 The RMU shall consult with the Resettlers on the Detailed Village Plans and seek their input and advice on same. The RMU shall inform the RO of the Resettlers' input.

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Included in the Company’s development budget (item (b) - Limited by Cost)</th>
<th>Nov 02 – Financial Close + 6 months</th>
</tr>
</thead>
</table>

7.2 The RO must revise the Detailed Village Plans to take into account all reasonable recommendations from the Resettlers arising from the consultation process above.

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Included in the Company’s development budget (item (b) - Limited by Cost)</th>
<th>Nov 02 – Financial Close + 9 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and description</td>
<td>Time Schedule Start Date - Completion Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>8 Finalise the location for each household</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8.1 The final choice of site will be made by the Resettlers in consultation with the Company and GOL.</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 9 months</td>
</tr>
<tr>
<td>8.2 Suitable sites for Project Affected Persons in Nakai town will be decided upon in consultation with the RMU. The alignment of the new road will be the most likely location for these affected households. The allocation of plots along the new road and planning the relocation will involve town planning and the co-operation of the Nakai District Resettlement Working Group (DRWG).</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 9 months</td>
</tr>
<tr>
<td>9 Inform households of their location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.1 The RMU shall inform each Resettler of their new location</td>
<td>X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Nov 02 – Financial Close + 9 months</td>
</tr>
<tr>
<td>10 UXO survey and clearing for Resettlement Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.1 Prior to the relocation of Resettlers, the Company will arrange for a UXO survey of the land within the Resettlement Area as follows: (a) land within the new village boundaries as indicated on the Detailed Village Plans; (b) land to be used for access to other villages and the Community Forestry Area; and (c) any other land allocated by the RMU for domestic or cultivation purposes by the Resettlers excluding the Community Forestry Area, to be undertaken in accordance with clause 30.13 of the Concession Agreement.</td>
<td>X</td>
<td>Included in the Company’s contingency budget (item (c) – Limited by Cost)</td>
<td>Nov 02 – Financial Close+19</td>
</tr>
<tr>
<td>10.2 Prior to the relocation of Resettlers, the Company must ensure that it has complied with its obligations to detect and where detected, render safe by removal and subsequent destruction or by in situ destruction of UXOs located in the area defined in paragraph 10.1 above in accordance with clause 30.13 of the Concession Agreement.</td>
<td>X</td>
<td>Included in the Company’s contingency budget (item (c) – Limited by Cost)</td>
<td>Nov 02 – Financial Close+19</td>
</tr>
<tr>
<td>10.3 The Company will engage experts in UXOs community awareness to deliver a comprehensive community awareness program consistent with internationally accepted community awareness standards for UXOs to Resettlers to maximise community awareness of UXOs throughout the</td>
<td>X</td>
<td>Included in the Company’s contingency budget (item (c) – Limited by Cost)</td>
<td>Nov 02 – end of Construction Phase</td>
</tr>
</tbody>
</table>
### Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

#### 10.4 The Company shall also make available “on-call roving capability” to the Resettlers during the Construction Phase to ensure that when UXOs are discovered on the surface in the Community Forestry Area they will be promptly removed or rendered safe by appropriately trained personnel.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resettlement Area, including recognition and steps to take in the event that they encounter UXOs, particularly as the Community Forestry Area will not be surveyed for UXOs located there.</td>
<td>X</td>
<td>Included in the Company’s contingency budget (item (c) – Limited by Cost)</td>
<td>Nov 02 – end of Construction Phase</td>
</tr>
</tbody>
</table>

#### 11 Baseline data for the Xe Bang Fai region

11.1 Prior to the Operating Phase, the Company will ensure that a five year baseline study is carried out by an experienced fisheries professional to quantitatively establish pre-Project fishery resources in the portions of the Xe Bang Fai River which will be affected by the Project. The Company will furnish the results obtained in the study to the GOL on a regular basis and together they will agree on pre-Project baseline levels and varieties (“Xe Bang Fai Fisheries Baseline”).

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1 Prior to the Operating Phase, the Company will ensure that a five year baseline study is carried out by an experienced fisheries professional to quantitatively establish pre-Project fishery resources in the portions of the Xe Bang Fai River which will be affected by the Project. The Company will furnish the results obtained in the study to the GOL on a regular basis and together they will agree on pre-Project baseline levels and varieties (“Xe Bang Fai Fisheries Baseline”).</td>
<td>XL. X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>Jan 02 - Financial Close+3 years</td>
</tr>
</tbody>
</table>

11.2 The Company will monitor and measure the level of impact caused by the Project on the fishery resources identified in the Xe Bang Fai Baseline and report on its findings to the GOL at least twice per year from the Commercial Operations Date until the end of the Resettlement Implementation Period.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.2 The Company will monitor and measure the level of impact caused by the Project on the fishery resources identified in the Xe Bang Fai Baseline and report on its findings to the GOL at least twice per year from the Commercial Operations Date until the end of the Resettlement Implementation Period.</td>
<td>XL. X</td>
<td>Company - Fixed Scope</td>
<td>Commercial Operations Date - end of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>

11.3 The Company has commissioned a baseline socio-economic and health survey of those villages located along the Xe Bang Fai River. As part of this survey, the nutritional/livelihood importance of riverbank gardens and Xe Bang Fai fisheries shall be identified (“Xe Bang Fai Socio-economic Baseline”).

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.3 The Company has commissioned a baseline socio-economic and health survey of those villages located along the Xe Bang Fai River. As part of this survey, the nutritional/livelihood importance of riverbank gardens and Xe Bang Fai fisheries shall be identified (“Xe Bang Fai Socio-economic Baseline”).</td>
<td>XL. X</td>
<td>Included in the Company’s development budget (item (b) - Limited by Cost)</td>
<td>To be completed in September 2002.</td>
</tr>
</tbody>
</table>

11.4 The Company will monitor and measure twice after the Commercial Operations Date (approximately two (2) years after commencement of the Operating Phase and at approximately four (4) years after commencement of the Operating Phase), the level of impact caused by the Project on the households’ socio-economic/health identified in the Xe Bang Fai Socio-economic Baseline and report on its findings to the GOL.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and description</th>
<th>Time Schedule Start Date - Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.4 The Company will monitor and measure twice after the Commercial Operations Date (approximately two (2) years after commencement of the Operating Phase and at approximately four (4) years after commencement of the Operating Phase), the level of impact caused by the Project on the households’ socio-economic/health identified in the Xe Bang Fai Socio-economic Baseline and report on its findings to the GOL.</td>
<td>XL. X</td>
<td>Company - Fixed Scope</td>
<td>Financial Close - end of Resettlement Process Period</td>
</tr>
</tbody>
</table>
## Village Development: Implementation Stage

Summary of resettlement activities for this stage and the responsible party

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Time Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Company (RO)</td>
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</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Budget Amount and Description</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting Date/Completion Date</td>
<td></td>
</tr>
<tr>
<td>1 Obtain land certificate from Provincial Government</td>
<td></td>
<td>Financial Close– Financial Close + 36 months</td>
</tr>
<tr>
<td>1.1 The RO must provide such information (including maps of the Resettlement Area) as the Khammouane Provincial Government requires in order to grant a land certificate to indicate its approval of the detailed land allocations of the Resettlement Areas.</td>
<td>X</td>
<td>Financial Close– Financial Close + 6 months</td>
</tr>
<tr>
<td>1.2 The RMU is responsible for liaising with the Khammouane Provincial Government to obtain the land certificate referred to in paragraph 1.1 of this clause 8.</td>
<td>X</td>
<td>Financial Close– Financial Close + 6 months</td>
</tr>
<tr>
<td>2 Clear Village sites - Land clearing and fencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Slashing of land to be irrigated (0.5 ha/household)</td>
<td>X</td>
<td>$16,613 – Fixed Scope</td>
</tr>
<tr>
<td>2.2 Removal of stumps (0.5 ha per family)</td>
<td>X</td>
<td>$110,750 – Fixed Scope</td>
</tr>
<tr>
<td>2.3 Provide barbed wire (300m per household)</td>
<td>X</td>
<td>$26,580 – Fixed Scope</td>
</tr>
<tr>
<td>2.4 Provide fence posts (150 posts per family)</td>
<td>X</td>
<td>$102,240 – Fixed Scope</td>
</tr>
<tr>
<td>2.5 Labour for fence (12 work-days per family)</td>
<td>X</td>
<td>$13,290 – Fixed Scope</td>
</tr>
<tr>
<td>3 Develop a mechanism to distribute farm/house plots among households</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 RMU to develop a mechanism to distribute farm/ house plots to Resettlers</td>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
</tr>
<tr>
<td>4 Organise the villages for relocation, including transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Transport and labour (US$194 per house)</td>
<td>X</td>
<td>$171,884 – Fixed Scope</td>
</tr>
</tbody>
</table>
### Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>GOL (RMU)</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.2</strong> Disturbance allowance (US$15 per person)</td>
<td></td>
<td>X</td>
<td>$73,335 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td><strong>4.3</strong> Dismantling original houses (US$5 per house)</td>
<td></td>
<td>X</td>
<td>$4,430 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
</tbody>
</table>

#### 5 Design and construct infrastructure and equipment

The RO must ensure that the design and the supervision of construction of the infrastructure and equipment set out in this paragraph 5 will be undertaken by people expert in the design and construction of such infrastructure and equipment in the Lao PDR. The Company must consult with the RMU during the design process and seek the RC's no-objection for the standards and general designs.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>GOL (RMU)</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5.1</strong> Village access roads south of Oudomsouk shall be constructed according to Schedule 2, Part 1 (Project Standard D). All weather access roads to each Resettler house and farm lot shall be constructed with a 3 m width running surface (within a right of way of at least eight (8) metres) as set out in detailed village plans to be approved by the RC. All weather forest management roads with a 3m width running surface (within a right of way of at least eight (8) metres) shall be constructed based on the specifications set out in the Forest Management Plan (as approved by the RC).</td>
<td></td>
<td>X</td>
<td>$1,500,000 – Fixed Scope</td>
<td>Financial Close – Financial Close + 24 months</td>
</tr>
<tr>
<td><strong>5.2</strong> Electricity generator (50kW) per 50 families</td>
<td></td>
<td>X</td>
<td>$252,000 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td><strong>5.3</strong> Electricity supply to each Resettler house and newly constructed community buildings within the Resettlement Area, including 22 kV distribution network and step-down transformers in accordance with EDL network practices</td>
<td></td>
<td>X</td>
<td>$1,595,000– Fixed Scope</td>
<td>Financial Close– Financial Close + 36 months</td>
</tr>
<tr>
<td><strong>5.4</strong> Gully stop dam chain (25m³ per 5 families) which is fit for its intended purpose</td>
<td></td>
<td>X</td>
<td>$8,900 – Fixed Scope</td>
<td>Financial Close – Financial Close + 19 months</td>
</tr>
<tr>
<td><strong>5.5</strong> Gully head pond (800 m³ per 25 families) which is fit for its intended purpose</td>
<td></td>
<td>X</td>
<td>$57,600 – Fixed Scope</td>
<td>Financial Close – Financial Close + 19 months</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>GOL (RMU)</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/Completion Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
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<td>---------------------------------------------</td>
</tr>
<tr>
<td>5.6 Irrigation/household water supply and distribution to each house/farm lot</td>
<td>X</td>
<td>$1,500,000 – Fixed Scope</td>
<td>Financial Close – Financial Close + 48 months</td>
<td></td>
</tr>
<tr>
<td>The Company shall provide the following:</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• irrigation water to each Resettler house/farm lot boundary within the Resettlement Area;</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• distribution irrigation system within each Resettler farm lot within the Resettlement Area;</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• irrigation water to rice lands provided to Resettlers within the Resettlement Area;</td>
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</tr>
<tr>
<td>• year-round household water supply to Resettlers as close as reasonably possible to each of their houses and community buildings in the Resettlement Area (where specified to have water supply in paragraph 6), having regard to local topography and village design;</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• irrigation water will be made available at the regulating dam and along the Downstream Channel as detailed in Schedule 23.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5.7 Community buildings - Schools (2 students/family, 30 per classroom) 56m2 per classroom (Access to be within 3km of each Resettler household). To be constructed with concrete flooring, hardwood structure, ceiling and sheet metal roofing. A wooden fence must be constructed around the school yard and a wooden flagpole must be constructed in the school yard. To be connected to electricity supply and have water supply as provided in paragraph 5.6 above and an adequate sewage system and drainage facilities. There will be at least one toilet provided per classroom.</td>
<td>X</td>
<td>$84,000 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>5.8 Community buildings - Teachers’ housing (1 per classroom) 77 m2. To be constructed to the same standard as the Resettler housing described in item 6, below. To be connected to electricity supply and have water supply as provided in paragraph 5.6 above and an adequate sewage system and drainage facilities.</td>
<td>X</td>
<td>$115,879 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>5.9 Community buildings - School equipment</td>
<td>X</td>
<td>$30,000 –</td>
<td>Financial</td>
<td></td>
</tr>
<tr>
<td>Responsible Party</td>
<td>Activities</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/Completion Date</td>
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</tr>
<tr>
<td>Company (RO)</td>
<td>&amp; supplies comprising tables, chairs, blackboard and cupboard for each classroom</td>
<td>Fixed Scope</td>
<td>Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>GOL (RMU)</td>
<td>5.10 Community buildings - Clinic (per 100 families) 100 m2 (Access to be within 5km of each Resettler household). To be constructed with concrete flooring, hardwood structure, ceiling and sheet metal roofing. To be connected to water and electricity supply and have an adequate sewage system and drainage facilities.</td>
<td>$22,500 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.11 Community buildings - Clinic staff housing (per clinic) 77 m2. To be constructed to the same standard as the Resettler housing described in item 6 below. To be connected to electricity supply and have water supply as provided in paragraph 5.6 above and an adequate sewage system and drainage facilities.</td>
<td>$17,382 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.12 Community buildings - Clinic equipment &amp; supplies comprising sink and furniture appropriate to the size of the clinic (approximately $1,000 per clinic)</td>
<td>$9,000 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.13 Community buildings - Meeting hall (per 50 families) 50 m2. To be constructed with hardwood structure and sheet metal roofing with a floor of concrete or hardwood and incorporating a small office for the village chief. To be connected to electricity supply and have water supply as provided in paragraph 5.6 above and an adequate sewage system and drainage facilities.</td>
<td>$22,500 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.14 Community buildings - Roofed market (per 50 families) 50 m2. To be constructed with concrete support posts, wooden roof structure and sheet metal roofing. To be connected to electricity supply and have water supply as provided in paragraph 5.6 above and an adequate sewage system and drainage facilities.</td>
<td>$33,750 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.15 Community buildings - Godown (per 50 families) 50 m2. To be constructed with concrete flooring, hardwood structure and walls and sheet metal roofing.</td>
<td>$45,000 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.16 Community buildings - Rice mill/workshop (per 50 families) 20 m2. To be constructed</td>
<td>$18,000 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/ Completion Date</td>
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<tr>
<td>with concrete flooring, hardwood structure and sheet metal roofing. To be connected to electricity supply and have water supply as provided in paragraph 5.6 above.</td>
<td></td>
<td></td>
<td>months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>5.17 Community buildings -Cattle yard/crush (per 50 families) 150 m² To be constructed from wood products.</td>
<td>X</td>
<td>$2,700 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>5.18 Community buildings -Tree nursery (per 50 families) 120 m². To have water supply as provided in paragraph 5.6 above.</td>
<td>X</td>
<td>$27,000 – Fixed Scope</td>
<td>Financial Close+6 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>5.19 Cultural heritage in the villages: Village monasteries, temples, stupas, grave sites and historical artefacts will be transported to new village sites or new buildings of at least a similar value will be constructed. Consultations and negotiations will be carried out to determine culturally acceptable relocation to nominated sites. The GOL shall provide detailed plans to the Company regarding the relocation of items of cultural heritage.</td>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close – Financial Close + 12 months</td>
<td></td>
</tr>
<tr>
<td>5.20 The Company shall be responsible for moving items of cultural heritage for each village as per the GOL plans and seeking GOL guidance as to appropriate protective and/or salvage measures if any archaeologically significant properties are uncovered during the Resettlement Process.</td>
<td>X</td>
<td>Company - Fixed Scope</td>
<td>Financial Close+12 months – Financial Close + 36 months</td>
<td></td>
</tr>
<tr>
<td>5.21 22kV Electricity Supply from the Power Station: The Company shall be responsible for the design and construction of sufficient 22kV transformer and associated switchyard capacity at the site of the Power Station to provide 22kV electricity supply to the local area (as provided in Part 2 of Schedule 2 of the Concession Agreement). The transformer shall have sufficient capacity to supply 20MW of electricity. The Company shall be responsible for maintenance of such GOL Works for the period it remains liable for same under clause 17.8 of the Concession Agreement.</td>
<td>X</td>
<td>$1,300,000– Fixed Scope</td>
<td>Financial Close+36 months – Financial Close + 48 months</td>
<td></td>
</tr>
</tbody>
</table>
## 6 Construction of house for each family of Resettlers

The RO must ensure that the design and the supervision of construction of the Resettler housing in this paragraph 6 will be undertaken by people expert in the design and construction of such infrastructure and equipment in the Lao PDR. The Company must consult with the RMU during the design process and seek the RC’s no-objection for the standards and general designs.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 The Company is responsible for providing resources to each household of Resettlers for:</td>
<td>XL</td>
<td>$1,711,150 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td>a new house in accordance with the basic design set out in Attachment B to this Part with such modifications reasonably requested by the household; or</td>
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<td></td>
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</tr>
<tr>
<td>at the discretion of the Resettler household, transportation to move materials from their former houses to be reused on the new site.</td>
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</tr>
<tr>
<td>The Company must ensure that each house contains a 14 m² construction area per person with a minimum housing area not less than the existing area or 42 m² (whichever is the greater).</td>
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</tr>
<tr>
<td>The Company agrees that households with seven or more persons containing two families have the option to have two houses.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The Company agrees to provide suitably trained carpenters and adequate labour to support villagers constructing their houses, and to make additional labour resources available where required.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Houses shall be constructed using concrete or hardwood for support posts/columns, hardwood for all floor construction, wood products (excluding for the avoidance of doubt, bamboo) for wall construction and corrugated sheet metal for roofing (with hardwood roof structure). Water supply must be made available consistent with paragraph 5.6 above as well as an adequate sewage system and drainage structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity: 886 houses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.2 Construct toilet (one per family - 2m x 2m). To be constructed with concrete flooring, with a ceramic plate toilet,</td>
<td>XL</td>
<td>$25,314 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td>6.3 Construct granary (one per family - 4m²) To be constructed with wooden flooring, hardwood structure and sheet metal roofing.</td>
<td>XL</td>
<td>$132,900 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
</tbody>
</table>
### Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4 Construct roofed compost bin: (one per family - 2m x 2 m).</td>
<td>Company (RO)</td>
<td>X $66,450 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td>To be constructed from wood products with thatch roofing.</td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5 Provide water jar for toilet (one per family)</td>
<td>Company (RO)</td>
<td>X $8,860 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.6 Install electrical wiring in each Resettler house as well as two light fixtures per house and at least one (1) power point per room.</td>
<td>Company (RO)</td>
<td>X $106,320 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.7 Construct Gully-stop well (one per 5 families) to be fit for its intended purpose</td>
<td>Company (RO)</td>
<td>X $7,120 – Fixed Scope</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 7 Physical relocation

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 Relocation of Resettlers shall not be commenced until after the Resettler housing and essential community infrastructure and services are complete (including, without limitation, the village access road, allocated farm plots, schools, housing and clinics and availability of water for Resettlers households and as far as possible, water for gardening).</td>
<td>Company (RO)</td>
<td>X Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close+12 months – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2 Reservoir implementation impoundment must not be commenced until all Resettlers have been relocated in accordance with this Part</td>
<td>Company (RO)</td>
<td>X No budget.</td>
<td>Financial Close+12 months – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.3 Until the Resettlers have fully established themselves and the livelihood model has proven successful, the RMU shall ensure that no establishment of households other than bona fide Resettlers should be permitted in the Resettlement Area.</td>
<td>Company (RO)</td>
<td>X Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close+12 months – End of Resettlement Process Period</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.4 The parties acknowledge that some flexibility is required in implementing this obligation to allow for relatives to return, such as female headed households following a divorce or death in the National Biodiversity Conservation Area where the household is a daughter, sister etc. of Resettler households.</td>
<td>Company (RO)</td>
<td>X Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close+12 months – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.5 Noting that 2 stages of relocation are planned (relating to Reservoir levels), the RMU shall take into account preferences</td>
<td>Company (RO)</td>
<td>X Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close+12 months – Financial Close + 36 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
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</tbody>
</table>
## Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

### Responsible Party

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>of any Resettlers to be relocated in Stage 2 to move for legitimate reasons in Stage 1.</td>
<td></td>
<td>(f) – Limited by Cost</td>
<td>months – Financial Close + 36 months</td>
</tr>
</tbody>
</table>

### 8 Commence resettlement monitoring - See clause 5 for detailed obligations.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 Resettlement monitoring – RO and RMU monitoring</td>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close - end of Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.2 Resettlement monitoring – independent external monitor</td>
<td>X</td>
<td>Included in budget for External Monitoring (item (a) - Limited by Cost)</td>
<td>Financial Close - end of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>

### 9 Provide entitlements to Project Affected Persons

#### 9.1 General Principles

The Company will fund, and the GOL shall provide, compensation to Project Affected Persons in accordance with clause 14 and the Nam Theun 2 Resettlement Policy. The parties agree that:

- **(a)** all persons who sustain a loss caused by the Project will be entitled to adequate and prompt compensation or replacement of assets lost;
- **(b)** there will be clear communication to and consultation with Project Affected Persons to ensure that compensation entitlements are appropriate and clearly understood.

Where villagers elect to resettle outside the Resettlement Area and receive cash compensation in a single payment, cash is to be paid into a bank account to which both spouses will have access and for which both spouses must sign for withdrawals over USD50.

#### 9.2 Regulating pond and Downstream Channel areas

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2.1 Regulating pond and Downstream Channel areas: The Company must develop compensation schemes for those affected by the excavation and construction of the regulating pond and</td>
<td>XL</td>
<td>Company - Fixed Scope</td>
<td>Financial Close - Financial Close+9 months</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
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</thead>
<tbody>
<tr>
<td>Downstream Channel (including by loss of land, structures, assets) for review and approval by RC.</td>
<td></td>
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</tbody>
</table>

9.2.2 **Regulating pond and Downstream Channel areas**: The Company shall provide compensation funding and the RMU shall effect compensation to those people affected by the excavation and construction of the Regulating Pond and Downstream Channel in accordance with the compensation schemes approved by the RC under paragraph 9.2.1.

The Company and the GOL acknowledge that the following assets may be acquired by the Company for which the Company shall pay compensation. Quantities will be adjusted following final alignment of the downstream channel.

- A- Houses: 24 units
- B- Barns: 17 units
- C- Field huts: 6 units
- D- Fish ponds: 5 units
- E- Rice paddy (rain fed): 86 ha
- F- Rice paddy (irrigated): 18 ha
- G- Garden: 4 ha
- H- Degraded forest: 339 ha – no compensation applies
- I- Forest reserve: 3 ha - no compensation applies
- J- Disturbance allowances: 200 claims
- K- Health monitoring: lump sum of $20,000
- L- Contingency: 15% on actual cost (to be lump sum)

|  |  | $247,020 – Fixed Scope (compensate those affected by Regulating Pond and Downstream Channel construction) |
|  |  | Financial Close + 12 months – Financial Close + 36 months |

9.2.3 Subject to paragraph 9.2.4 below, the Company will be responsible for the design, construction and maintenance of the Regulating Pond, the regulating dam, necessary access roads and agricultural bridges across the Downstream Channel in accordance with the requirements of the Concession Agreement, including Schedule 23. The Company shall carry out community consultation to determine the most appropriate locations for the bridges and shall in any case obtain the RC’s no-objection to the intended locations.

|  |  | Company - Fixed Scope. |
|  |  | Financial Close – Financial Close + 54 months |
## Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2.4 The GOL is responsible for the maintenance of the agricultural bridges</td>
<td>X</td>
<td>Funding is included in the Social and Environmental Remediation Fund</td>
<td>start of the Concession Period – end of the Concession Period</td>
</tr>
<tr>
<td>across the Downstream Channel once handed over in accordance with the</td>
<td></td>
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<tr>
<td>Concession Agreement by the Company to the GOL after construction with</td>
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<tr>
<td>funding to be provided by the Company in accordance with clause 15.4.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9.3 Upper and Middle Xe Bang Fai areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.3.1 Upper Xe Bang Fai area</td>
<td>X</td>
<td>$1,000,000 - Limited by Cost</td>
<td>Financial Close+48 months-End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>The Company shall provide compensation funding of $1,000,000 (Limited by</td>
<td></td>
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<tr>
<td>Cost) and the GOL shall effect that compensation to communities adversely</td>
<td></td>
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<tr>
<td>affected by the Project in the Upper Xe Bang Fai area (as indicated by the</td>
<td></td>
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<tr>
<td>monitoring results pursuant to paragraphs 11.2 and 11.4 of clause 7) on</td>
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<tr>
<td>the basis of community selection of desirable livelihood or infrastructure</td>
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<tr>
<td>outcomes, rather than compensating households directly. (Community</td>
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<tr>
<td>participation programs, developed by the RMU and RO on the Nakai Plateau</td>
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<tr>
<td>are considered to be well suited to this activity. The Company agrees with</td>
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<tr>
<td>the GOL that if the budget amount for this activity proves to be inadequate</td>
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<tr>
<td>to compensate the affected people, then, without limiting the GOL’s other</td>
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</tr>
<tr>
<td>rights against the Company in respect of the adequacy of the budget amount</td>
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</tr>
<tr>
<td>under the Concession Agreement, this shall be considered to be an Unanticipated Project Impact for the purposes of clause 30.9 of the Concession Agreement.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9.3.2 Middle Xe Bang Fai areas</td>
<td>X</td>
<td>$500,000 – Limited by Cost</td>
<td>Financial Close+48 months-End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>The Company shall provide compensation funding of $500,000 (Limited by</td>
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</tr>
<tr>
<td>Cost) and the GOL shall effect that compensation to communities adversely</td>
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<tr>
<td>affected by the Project in the Middle Xe Bang Fai area (as indicated by the</td>
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<tr>
<td>monitoring results pursuant to paragraphs 11.2 and 11.4 of clause 7) on</td>
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<tr>
<td>the basis of community selection of desirable livelihood or infrastructure</td>
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<tr>
<td>outcomes, rather than compensating households directly. (Community</td>
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<tr>
<td>participation programs, developed by the RMU and RO on the Nakai Plateau</td>
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<tr>
<td>are considered to be well suited to this activity. The Company agrees with</td>
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<td></td>
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<tr>
<td>the GOL that if the budget amount for this activity proves to be inadequate</td>
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<td></td>
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<tr>
<td>to compensate the affected people, then, without limiting the GOL’s other</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>rights against the Company in respect of the adequacy of the budget amount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>under the Concession Agreement, this shall be considered to be an Unanticipated Project Impact for the purposes of clause 30.9 of the Concession Agreement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/Completion Date</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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<td>---------------------------------------------</td>
</tr>
<tr>
<td>selection of desirable livelihood or infrastructure outcomes, rather than compensating households directly. (Community participation programs, developed by the RMU and RO on the Nakai Plateau are considered to be well suited to this activity.) The Company agrees with the GOL that if the budget amount for this activity proves to be inadequate to compensate the affected people, then, without limiting the GOL’s other rights against the Company in respect of the adequacy of the budget amount under the Concession Agreement, this shall be considered to be an Unanticipated Project Impact for the purposes of clause 30.9 of the Concession Agreement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.4 Power Station and Transmission Lines:</td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td></td>
</tr>
<tr>
<td>The route of the Transmission System and the GOL Transmission Assets (“Transmission Lines”) will be designed so that it minimises the effect on any houses or other settlements and as much as reasonably practicable, be designed so that it does not affect agricultural areas. To the extent that land is to be acquired by the GOL for use by the Company, it shall be limited to small parcels of land to accommodate the transmission towers (as provided for in Schedule 9 of the Concession Agreement).</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.4.1 Power Station and Transmission Lines: Develop compensation schemes.</td>
<td>X</td>
<td>Company Fixed Scope</td>
<td>Financial Close – Financial Close + 9 months</td>
</tr>
<tr>
<td>The RO will develop for review and approval by the RC, compensation schemes for those affected by the construction and operation of the Power Station and the Transmission Lines, either through loss of land and infrastructure or economic loss or disturbance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.4.2 Power Station and Transmission Lines: Provide asset compensation.</td>
<td>X</td>
<td>$50,000 – Fixed Scope.</td>
<td>Financial Close + 12 months – Financial Close + 36 months</td>
</tr>
<tr>
<td>The Company will provide compensation funding and the RMU will effect compensation in accordance with the compensation mechanism approved by the RC under paragraph 9.4.1 above to those</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/ Completion Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------</td>
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<td>---------------------------------------------</td>
</tr>
<tr>
<td>people affected by the construction and operation of the Power Station and the Transmission Lines, either through loss of land and infrastructure or economic loss or disturbance.</td>
<td></td>
<td>route selected.</td>
<td></td>
</tr>
<tr>
<td>9.5 Dam region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5.1 Dam region: Develop compensation schemes</td>
<td>X</td>
<td>Company - Fixed Scope</td>
<td>Financial Close + 9 months</td>
</tr>
<tr>
<td>The RO will develop for review and approval by the RC, compensation schemes for those affected by the Project in the Dam region, either through loss of land and infrastructure or economic loss and disturbance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5.2 Dam region: Land acquisition for roads and disturbance</td>
<td>X</td>
<td>$60,000 – Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 36 months</td>
</tr>
<tr>
<td>The Company will provide compensation funding and the RMU shall effect compensation in accordance with the compensation mechanism approved by the RC under paragraph 9.5.1 above, to all those affected by the Project in the Dam region, either through loss of land and infrastructure or economic loss and disturbance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Regional Health Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.1 Develop regional health</td>
<td>X</td>
<td>See clauses 10.2 to 10.4 below</td>
<td>Jan 02– Financial Close + 6 months</td>
</tr>
<tr>
<td>The Company agrees to fund a regional health program for the benefit of Resettlers to compensate for any directly non-mitigatable adverse effects on the regional population, to directly mitigate against any adverse health effects of the increased construction population on the pre-existing regional population and to raise the health standards of that population. The aim is for the program to raise the general health standards in the Project area, with particular attention to those in the Downstream Area. Activities under the regional health program would follow GOL national and provincial policies and targets, for example, safe water supply, the EPI programme and malaria control. The objective of this approach will be to eventually combine health care activities with the GOL provincial and nationwide programmes. To achieve this long term plan it will be necessary, at province, district...</td>
<td></td>
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</tr>
</tbody>
</table>
and village levels to:

- inform communities on endemic diseases, control programmes and correct health care measures which can be individually carried out;
- ensure a sufficiency of essential drugs;
- train and transfer appropriate technology among health workers and practitioners;
- provide support to disease control programmes including their supervision; and
- ensure the timely monitoring of health status and health services implementation.

Much will depend on the standard of the available health and volunteer personnel and the levels of expertise required for monitoring, and other activities. These should be upgraded through in-service and other forms of training and improved methods of supervision.

As with Ministries and other government departments, activities will be in collaboration and co-ordination with other influential and involved groups such as the Lao Women’s Union and non-governmental organisations active in the area.

10.2 Disease Control Program Support

Support to disease control programmes will be through the:

- provision of technical support;
- availability of essential drugs and other supplies necessary to the programme;
- collaboration in programme implementation;
- development and production of health information materials; and
- assistance with evaluation and analysis of data.

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>$694,000 – Limited by Cost</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>

10.3 Overseas Training and Study Tours

Health workers will be strengthened through programmes which provide opportunities for individual and collective training through

- some limited international training;
- short study and training tours in Thailand;

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>$150,000 – Limited by Cost</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>

10.4 Technical Consultants and Logistics Support

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>$250,000 – Limited by</td>
<td>Financial Close – End of</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Activities

The GOL will procure technical consultants and logistics support to assist in developing the program described under paragraph 10.1 above. This will also incorporate:

- locally organised training;
- the development of teaching and job aids; and
- improving supervision at all levels.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Resettlement Implementation Period</td>
</tr>
</tbody>
</table>
## 9 Livelihood Development: Planning Stage

**Summary of resettlement activities for this stage and the responsible party**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>General principles to be implemented</td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td></td>
</tr>
<tr>
<td>1.1 Where changes in household economic activities are proposed, the replacement opportunities will recognise the ability and interest of the persons affected. New activities will be introduced on a sound economic basis, with risks identified and understood. The RO and RMU will ensure that local villagers, including Resettlers, are employed to undertake unskilled and semi-skilled jobs, such as maintenance of the Reservoir, maintenance of bulk water supply and road maintenance works.</td>
<td>X</td>
<td>X</td>
<td>Financial Close – End of Concession Period</td>
</tr>
<tr>
<td>Demonstration farm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Company has established a demonstration farm at Theun Duane and a plant supply nursery at Nakai Neua. The Company agrees to maintain the demonstration farm at Theun Duane for the term of the Resettlement Process to teach Project Affected Persons to improve their agricultural and forestry yields by, without limitation: demonstrating and trialling the use of new crops and terracing, composting, rearing livestock under confined conditions; cultivating fodder crops and raising nursery plants; promoting intensification of production systems through extension, demonstration and training; and generally demonstrating the viability of settled farming on the uplands. The Company will take the following factors into account in designing appropriate methods to create awareness and stimulate interest among the Project Affected Persons through the demonstration farm: level of literacy; access to information media; traditional leadership structures; gender specialisation in household and economic activities;</td>
<td>X</td>
<td>This activity shall be done by the Company during the Resettlement Pre Financial Close Period. The Company shall fund such activities as part of the development stage budget (item (b) - Limited by Cost)</td>
<td>January 2001 - End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/ Completion Date</td>
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<tr>
<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>previous experience in community efforts;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>attitudes towards innovations;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>seasonal labour demands;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>previous exposure to extension services;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cultural sensitivities and attitudes towards planned innovations; and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>availability of resources to try innovations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 The RO will evaluate the experience gained from the demonstration</td>
<td>XL.</td>
<td></td>
<td>Jan 02 – Financial Close</td>
</tr>
<tr>
<td>farm and consult with the RMU in relation to same.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 The RMU and the RO agree to adjust the plans for the Resettlement</td>
<td>X</td>
<td>RMU budget included in general</td>
<td>Jan 02 – Financial Close</td>
</tr>
<tr>
<td>Process, as appropriate, to take into consideration the experience and</td>
<td>X</td>
<td>RMU funding (item (f) – Limited</td>
<td></td>
</tr>
<tr>
<td>insights gained from the demonstration farm.</td>
<td></td>
<td>by Cost)</td>
<td></td>
</tr>
<tr>
<td>3 Identify forest resource</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 The Company has identified the Resettlement Area as having</td>
<td>X</td>
<td>Include in the Company’s</td>
<td>Completed</td>
</tr>
<tr>
<td>approximately 20,692 hectares of forest land out of which an estimated</td>
<td></td>
<td>development budget (item (b)</td>
<td></td>
</tr>
<tr>
<td>13,683 hectares can be developed for community-based agro-forestry</td>
<td></td>
<td>– Limited by Cost)</td>
<td></td>
</tr>
<tr>
<td>activities (the &quot;Community Forestry Area&quot;).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Consult with Reservoir villages on livelihood issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 The RMU will consult with Resettlers on livelihood issues to allow</td>
<td>X</td>
<td>Included in general RMU</td>
<td>Financial Close – Financial Close + 24</td>
</tr>
<tr>
<td>Resettlers the opportunity to choose different supplementary livelihood</td>
<td></td>
<td>funding (item (f) – Limited</td>
<td>months</td>
</tr>
<tr>
<td>options. The RMU may provide to Project Affected Persons technical</td>
<td></td>
<td>by Cost)</td>
<td></td>
</tr>
<tr>
<td>training, extension support and strengthening of support services to</td>
<td></td>
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<tr>
<td>ensure that livelihood development is efficiently managed.</td>
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<tr>
<td>4.2 The Company will take the following factors into account in designing</td>
<td>X</td>
<td></td>
<td>Financial Close – Financial Close + 24</td>
</tr>
<tr>
<td>appropriate methods to create awareness and to stimulate interest among</td>
<td></td>
<td></td>
<td>months</td>
</tr>
<tr>
<td>the Project Affected Persons in relation to livelihood issues:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>level of literacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>access to information media</td>
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<td></td>
<td></td>
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<tr>
<td>traditional leadership structures</td>
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<td></td>
<td></td>
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<tr>
<td>gender specialisation in household and economic activities</td>
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<tr>
<td>previous experience in community efforts</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>attitudes towards innovations.</td>
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<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/Completion Date</td>
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<td>--------------------------------------------</td>
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<tr>
<td>season labour demands</td>
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<tr>
<td>previous exposure to extension services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cultural sensitivities and attitudes towards planned innovations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>availability of resources to try innovations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Establish three farm/house plots and relocate three households</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 The RMU and the RO will:</td>
<td>XL. X</td>
<td>This activity shall be done by the Company during the development stage. The Company shall fund such activities as part of the development budget stage budget (item (b) – Limited by Cost)</td>
<td>Completed</td>
</tr>
<tr>
<td>• work together to establish three farm/house plots and to relocate three households with a view to testing assumptions, verifying predictions and working out solutions to problems in advance of the relocation; and</td>
<td></td>
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<tr>
<td>• monitor the three households and in particular labour resources and institutional capacity of those households.</td>
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<tr>
<td>6 Evaluation of three pilot farms</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6.1 The RO will evaluate the experience gained from the three pilot farms and consult with the RMU in relation to same.</td>
<td>XL. X</td>
<td>This activity shall be done by the Company during the development stage. The Company shall fund such activities as part of the development stage budget (item (b) – Limited by Cost)</td>
<td>Jan 02 – Financial Close</td>
</tr>
<tr>
<td>The RMU and the RO agree to adjust the plans for the Resettlement Implementation Period, as appropriate, to take into consideration the experience and insights gained from the three households.</td>
<td></td>
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</tr>
<tr>
<td>7 Community Forestry Program</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7.1 A plan for sustainable forestry comprising silvicultural management of existing forests and plantations of new resources will be developed before the Resettlers have been relocated for the purpose of providing employment and other economic returns to the Resettlers. The plan will be based on the principle of community ownership of the forest resource and will allow the Resettlers to participate directly in the financial benefits</td>
<td>XL. X</td>
<td>See budget in items 7.2 to 7.9 below</td>
<td>Jan 2002 – Financial Close + 36</td>
</tr>
</tbody>
</table>
## Concession Agreement - Schedule 4 Part 1: Social Component

### The Nakai Plateau Forestry Organisation (NPFO)

- **Establishment and Management**: The NPFO is the organisation to act on behalf of the resettled villages.
- **Sustainable Contributions**: Provides sustainable contributions from forests, making villagers self-sufficient in terms of fuel wood, underforest pasture, and minor forest products.
- **Employment**: Increases off-farm employment on the Plateau through forestry activities, particularly harvesting timber, collection of resin, medicinal plants, and herbs.
- **Forest Resource Dividend**: Obtains a forest resource dividend for NPFO members.

### Activities

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities</strong></td>
<td><strong>Company (RO)</strong></td>
<td><strong>GOL (RMU)</strong></td>
</tr>
<tr>
<td>from sustainable commercial logging of these forests.</td>
<td>XL</td>
<td>X</td>
</tr>
<tr>
<td>The aims of forest resource development on the Nakai Plateau are as follows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to establish the Nakai Plateau Forestry Organisation (NPFO) as the organisation to act on behalf of the resettled villages;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to obtain sustainable contributions from forests, to make villagers self-sufficient in terms of fuel wood, underforest pasture and minor forest products;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to increase off-farm employment on the Plateau through forestry activities, particularly the harvesting of timber, collection of resin, medicinal plants and herbs and their local processing; and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to obtain a forest resource dividend for the NPFO members.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2 Preparation program/Establishment of Nakai Plateau Forestry Organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2.1 Establishing the NPFO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2.2 Establishing Management Units</td>
<td></td>
<td></td>
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<tr>
<td>7.2.3 Setting up a Financial Account</td>
<td></td>
<td></td>
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<tr>
<td>7.2.4 Developing a Strategic Plan</td>
<td></td>
<td></td>
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<tr>
<td>7.2.5 Implementing Village Forestry Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2.6 Implementing Village Forest Resource Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2.7 Implementing Village Forest Resource Management</td>
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</tr>
</tbody>
</table>

(a) 13,683 ha of the forest land in the Resettlement Area will be managed as a single forest area by the NPFO, with the area divided up into forest management units. The RMU, the Nakai District Forestry Office and the Khammouane Forestry Unit will be actively involved in establishing the NPFO, as will Khammouane Province.

(b) The NPFO will be a non-profit organisation and will be made up of all Resettler households who will be its members. It will be authorised by Khammouane Province in cooperation with the Nakai District Administration to carry out village forestry activities.

(c) The relationship between the Resettlers, represented by the NPFO, and the GOL, represented by the Provincial Agriculture and Forestry Office (PAFO) and the Nakai District Agriculture and Forestry Office (DAFO), shall be governed by a contract modelled on the Draft Contract contained in Chapter 11 of the RAP.

(d) At the initial stages of forestry planning the District and Province authorities will...
<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>clearly establish and certify which plateau lands would fall under the control of the NPFO. The NPFO will manage this land and effectively protect the forest from fire, illegal logging, illegal hunting and unauthorised land uses.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) The Nakai Plateau Forestry Plan will be formulated according to the forest resource, its exploitation and some expected targets. It will include the plan for forest preservation, enrichment, sustainable exploitation and training.</td>
<td></td>
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</tr>
<tr>
<td>7.3 Establishment of plant supply nursery including procurement of seed and other inputs</td>
<td>XL</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close – Financial Close + 36</td>
</tr>
<tr>
<td>7.4 Develop and implement program for training extension staff, village leaders and Resettlers</td>
<td>XL</td>
<td>$40,000 – Limited by Cost</td>
<td>Financial Close – Financial Close + 36</td>
</tr>
<tr>
<td>7.5 Salaries and wages of forestry extension and support staff</td>
<td>XL</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>7.6 Purchase of equipment to be specified in the forest management plan</td>
<td>XL</td>
<td>$100,000 – Limited by Cost</td>
<td>Financial Close + 12 – Financial Close + 36</td>
</tr>
<tr>
<td>7.7 Operational budget for nursery</td>
<td>XL</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close + 12 – Financial Close + 36</td>
</tr>
<tr>
<td>7.8 Access road to the Community Forestry Area</td>
<td>XL</td>
<td>$60,000 – Limited by Cost</td>
<td>Financial Close + 12 – Financial Close + 54</td>
</tr>
<tr>
<td>7.9 Contingency</td>
<td>XL</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close – Financial Close + 54</td>
</tr>
<tr>
<td>8 Livestock Improvement Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.1 A program to improve livestock productivity will be undertaken once the Resettlers have been relocated. The following specific measures will be undertaken to improve livestock productivity: improving the quality of animal feed through the intensive production of fodder and legume crops on home gardens; reducing mortality by improving animal health and nutrition.</td>
<td>XL</td>
<td>See budget in items 8.2 to 8.10 below</td>
<td>Financial Close – End of the Resettlement Implementation Period</td>
</tr>
</tbody>
</table>
### Activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>health conditions; introducing improved pasture species into appropriate forest areas to improve dry matter yields and hence stocking rates; improved extension services to train farmers; introduction of better breeding stock to upgrade local breeds; and to utilise drawdown areas as appropriate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.2 Preparation of livestock development program</td>
<td>XL</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close – Financial Close + 24</td>
</tr>
<tr>
<td>8.3 Surveys of common grazing areas and mapping</td>
<td>XL</td>
<td>$25,000 – Limited by Cost</td>
<td>Financial Close + 12 – Financial Close + 36</td>
</tr>
<tr>
<td>8.4 Establishment of forage nurseries</td>
<td>XL</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close + 36 – End of the Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.5 Training in livestock management and disease control</td>
<td>X</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close + 36 – End of the Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.6 Improved stock for breeding</td>
<td>X</td>
<td>$100,000 – Limited by Cost</td>
<td>Financial Close + 36 – End of the Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.7 Purchase of small-scale equipment for feed mixing and processing</td>
<td>X</td>
<td>$100,000 – Limited by Cost</td>
<td>Financial Close + 36 – End of the Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.8 Salaries and wages of staff</td>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close + 36 – End of the Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.9 Veterinary supplies</td>
<td>X</td>
<td>$75,000 – Limited by Cost</td>
<td>Financial Close + 36 – End of the Resettlement Implementation Period</td>
</tr>
<tr>
<td>8.10 Contingency</td>
<td>X</td>
<td>$50,000 – Limited by</td>
<td>Financial Close + 36 – End</td>
</tr>
</tbody>
</table>

**Notes:**
- XL: Company (RO)
- X: GOL (RMU)
### 9 Agricultural Development Program

9.1 The following strategies will be undertaken to improve agricultural productivity on home gardens and in the wetland rice areas:

- soil fertility improvement through increased application of organic matter and fertilisers, and the introduction of leguminous crops into the rotation;
- cultivation of cash crops such as vegetables and fruits depending on market demand;
- improving access to credit through existing institutions; and
- institutional support through government organisations.

The parties agree to work together in preparation of an agricultural development plan which shall cover matters including:

- rice paddy development;
- extension services;
- identifying suitable cropping plans for Resettlers’ plots;
- procuring and supplying appropriate seed and planting material;
- ensuring timely availability of essential inputs;
- providing advisory services;
- recommending soil fertility management practices;
- organising the marketing of fruits and vegetables;
- new seed and planting material;
- training of farmers in irrigated rice production techniques; and
- ensuring efficient irrigation management.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Agricultural Development Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td></td>
<td>$500,000 Limited by Cost. This amount to be used for all activities included in this item 9.</td>
<td>Financial Close – Financial Close + 24 months</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Company (RO)</th>
<th>GOL (RMU)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1</td>
<td>XI.</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

The Responsible Party is Limited by Cost. This amount to be used for all activities included in this item 9. Financial Close – Financial Close + 24 months.
<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2 Resettlement Village planning, including demarcation of specific areas for wetland rice</td>
<td>XL (RO)</td>
<td>X</td>
<td>Nov 02 – Financial Close + 9 months</td>
</tr>
<tr>
<td>9.3 Development of a minimum of 150 hectares for wetland rice production</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – Financial Close + 48</td>
</tr>
<tr>
<td>9.4 Seeds and other planting material/equipment</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – Financial Close + 48</td>
</tr>
<tr>
<td>9.5 Fertilisers and other agro-chemicals</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – Financial Close + 48</td>
</tr>
<tr>
<td>9.6 Audio visual aids for extension work</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – Financial Close + 48</td>
</tr>
</tbody>
</table>

10 Consult with villagers on livelihood packages

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 RMU to consult with villages on livelihood packages</td>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>November 2002 – Financial Close + 9 months</td>
</tr>
</tbody>
</table>

11 Fisheries Development Program

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1 A program to ensure that the Reservoir is productive for fisheries will be implemented after the villages have been established. All boats located in the Reservoir will be registered in order to control fishing and the use of access to the Reservoir for access to the NBCA.</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>11.2 Preparation of a fisheries development plan for a sustainable fishery in the Reservoir (and to organise activities on a community basis among the households). The development plan shall provide guidelines so that a sustainable fishery is maintained in the Reservoir and shall include: a detailed consultative process with GOL, the Company, local landholders and communities to determine an organisational structure to manage the fishery among the key stakeholders, the outcome of that consultation program being a monitoring</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.2 Preparation of a fisheries development plan for a sustainable fishery in the Reservoir (and to organise activities on a community basis among the households). The development plan shall provide guidelines so that a sustainable fishery is maintained in the Reservoir and shall include: a detailed consultative process with GOL, the Company, local landholders and communities to determine an organisational structure to manage the fishery among the key stakeholders, the outcome of that consultation program being a monitoring</td>
<td>XL (RO)</td>
<td>X</td>
<td>Financial Close – Financial Close + 36 months</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/Completion Date</td>
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</tr>
<tr>
<td>program to determine fish species present, fish productivity, fish yield, fish capture techniques and fish replenishment recruitment strategies so that the fishery yield may be determined. This process may include reference to the fish species which may be able to thrive in the Reservoir as identified by the fishery experts engaged for the Project. Local ownership of this program will be important for the sustainability of the fishery; an implementation strategy with responsibilities which shall be a key part of the plan, with a realistic timetable; institutional arrangements which are acceptable to all parties; the method to establish the commercial and local requirements of the fishery and the economic and social returns to the community as well as a commercial structure, whether in the form of a cooperative or other body which involves the local community in the commercial aspects of the fishery; a review of the infrastructure needs on a small scale sustainable basis for handling, transport and selling of the fish; consideration of the large seasonal fluctuations in the Reservoir level; particularly when up to 365km² will be drawn down every dry season. The relationships between the aquatic macrophytes and their role in fishery production should also be addressed. For example, the impacts on fish replenishment if large amounts of aquatic macrophyte area are lost to cattle grazing or rice paddy each dry season; consideration of fish processing facilities and access points, as the large drawdown will limit these...</td>
<td>Company (RO) GOL (RMU)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Activities

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>11.3 Introduction of native fish species to the Reservoir</strong></td>
<td>X</td>
<td>XL</td>
</tr>
<tr>
<td><strong>11.4 Equipment and fishing gear</strong></td>
<td>XL</td>
<td>X</td>
</tr>
</tbody>
</table>

- access points;
- consideration of the need for a moratorium on commercial fishing during the dry season given that the reservoir during the dry season will be markedly reduced in size and that continued commercial fishing beyond a certain point in time or volume of the Reservoir may severely impact on fish production and recruitment;
- the control of introduced aquatic species; and
- the social, economic and environmental benefits of aquaculture for existing species within the Reservoir, including a fishery breeding and restocking program.

The plan in the fisheries development plan for the conservation of endemic species within the catchment should include:

- a survey of the upper tributaries of the Nam Theun River and the Nam Theun River upstream of the Reservoir;
- identification of endemic species within these streams;
- annual surveys of the streams and location and identification of the endemic species; and
- the development of an understanding of their ecology and the adoption of a conservation strategy to preserve their habitat and their life cycle.
<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.5 Ice plant</td>
<td>XL. X</td>
<td>$100,000 – Limited by Cost</td>
<td>Financial Close+36 months – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>11.6 Organising marketing of fish and fish products</td>
<td>X. XL</td>
<td>$25,000 – Limited by Cost</td>
<td>Financial Close+36 months – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>11.7 Salaries and wages of fisheries staff</td>
<td>X. XL</td>
<td>Included in general RMU funding (item (f) – Limited by Cost</td>
<td>Financial Close+36 months – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>11.8 Training costs including for training in capture fishing techniques appropriate to Reservoir conditions to be delivered to Resettlers.</td>
<td>X. XL</td>
<td>$50,000 – Limited by Cost</td>
<td>Financial Close+36 months – End of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>
### Livelihood Development: Implementation Stage

Summary of activities for this stage and the responsible party

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear and prepare rice areas</td>
<td>Company (RO)</td>
<td>Refer to clause 9, item 9.2 for budget information relating to clearing of 150 ha of land for wetland rice.</td>
<td>Nov 02 – Financial Close+12 months</td>
</tr>
<tr>
<td></td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training for Resettlers on new farming</td>
<td></td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>techniques, including irrigated rice</td>
<td></td>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>

1. Clear and prepare rice areas

The RO, with assistance from the RMU, will identify all areas within the Resettlement Areas that are suitable for wetland rice cultivation.

Depending on the results of the detailed soil and land capability assessments, each household will be allocated as far as practicable [0.15 to] 0.2 ha of land for irrigated rice production in off village location. (In the event that less land is available to a household, that household will be compensated through the extension of livelihood options available to them, or through such other measures which are consistent with the NT2 Resettlement Policy.)

Land will be cleared and prepared for construction and cultivation. This may be done by the owner, with own labour paid.

2. Training for Resettlers on new farming techniques, including irrigated rice

The RMU will coordinate training of the Resettlers on new farming techniques by use of extension methods such as information meetings, audio-visual presentations, village leader identification and training, field days, demonstrations, adaptive trials in farmers’ fields, farm competitions, and training in simple farm practices - agrochemical use, composting, and irrigation.

The RMU will encourage farmers to change from an extensive to an intensive type of farming and will teach them new skills in irrigation, fodder crop production, forestry management and optimum utilisation of Reservoir fisheries.

For rice cultivation, the RMU will train wetland rice growers in land preparation, timing of planting, nurseries and transplanting, varietal selection, fertiliser use, weed control, water management, pest and disease control, and storage and handling.

For vegetable and fruit cultivation, the RMU will train the Resettlers in selection of

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<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>improved varieties of vegetables and vegetatively propagated fruits and seedlings, land preparation, cultivation techniques, fertiliser application, crop husbandry practices and marketing. The RMU will provide training to the Resettlers in upland irrigation techniques including terracing and land levelling, use and maintenance of pumps and irrigation equipment, land preparation for irrigation of different crops, irrigation timing and frequencies, canal maintenance and fertiliser practice. The RMU will also facilitate implementation of strategies to improve agricultural productivity on home gardens and in the wetland rice areas: soil fertility improvement through increased application of organic matter and fertilisers, and the introduction of leguminous crops into the rotation; cultivation of cash crops such as vegetables and fruits depending on market demand; improving access to credit through existing institutions; and institutional support through government organisations;</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3 Provide farm equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm equipment referred to in this paragraph 3 will be fit for purpose and of reasonable quality, taking into account its intended use.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Hand-operated, portable Crop Sprayer (one unit per family)</td>
<td>X</td>
<td>$35,440 – Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.2 Feed storage drum (one unit per family)</td>
<td>X</td>
<td>$8,860 – Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.3 Hay fork (one unit per family)</td>
<td>X</td>
<td>$4,430 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.4 Shovel (one unit per family)</td>
<td>X</td>
<td>$4,430 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/Completion Date</td>
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<td>---------------------------------------------</td>
</tr>
<tr>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5 Hoe (2 units per family)</td>
<td>X</td>
<td>$8,860 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.6 Knife (2 units per family)</td>
<td>X</td>
<td>$8,860 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.7 Punki basket (one unit per family)</td>
<td>X</td>
<td>$1,772 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.8 Siem (one unit per family)</td>
<td>X</td>
<td>$1,772 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.9 Crowbar (one unit per family)</td>
<td>X</td>
<td>$5,316 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.10 Axe (one unit per family)</td>
<td>X</td>
<td>$4,430 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.11 Crosscut saw (one unit per 2 families)</td>
<td>X</td>
<td>$7,974 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.12 Bowsaw (one unit per 2 families)</td>
<td>X</td>
<td>$2,215 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.13 Pruning saw (one unit per 2 families)</td>
<td>X</td>
<td>$2,215 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.14 Pit saw (one unit per 2 families)</td>
<td>X</td>
<td>$11,075 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.15 Tree climbing irons (one unit per 2 families)</td>
<td>X</td>
<td>$8,860 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
<td>Time Schedule Starting Date/ Completion Date</td>
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</tr>
<tr>
<td>3.16 Vegetable/Herb/Spice Seeds (one package of mixed seeds per family)</td>
<td>X</td>
<td>$17,720 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.17 Forage crop seeds (10kg per family)</td>
<td>X</td>
<td>$4,430 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.18 Fruit tree seedlings (50 trees per family)</td>
<td>X</td>
<td>$132,900 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.19 Crushed limestone (1 tonne per family)</td>
<td>X</td>
<td>$17,720 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.20 Guano (0.25 tonnes per family)</td>
<td>X</td>
<td>$26,580 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>3.21 Leguminous Cover-crop (7 kg per family)</td>
<td>X</td>
<td>$12,404 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
</tbody>
</table>

4 Training on other income generating activities and technical support

4.1 The RMU will conduct two types of training for livelihood restoration and improvement: training for irrigation and fishing, forestry and livestock management, household budgeting; and

- extension programs that are facilitated by improved infrastructure such as healthcare programs, education and strengthening village organisations.

- The training programs for fishing, forestry and livestock management will be included in the development plans to be prepared in each of these areas.

The RMU’s training and extension programs will be aimed at:

- involving villagers in the defining, planning and implementation of education and training components of the resettlement program which will be directed towards improving the standard of living;
- helping adapt and upgrade the skills of...
### Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>the villagers to facilitate the adoption of the practices proposed under the livelihood model including agriculture, fisheries, forestry and livestock management; providing supporting health, nutrition and vocational education for the successful adoption of new livelihood systems across and between communities; utilising the agricultural demonstration farm established at Theun Douane, and the forest nursery, pasture and livestock drawdown grazing sites currently being at Nakai Neua, Nam Malou and Ban Thalang respectively; employing appropriate non-formal education training methods to ensure that villagers who cannot read and write will not be precluded from education and training opportunities, thus equipping them to better participate in the labour market; and skills training for targeted non-agricultural expertise (for example equipment maintenance and operation).</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5 Provide other livelihood equipment</td>
<td></td>
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</tr>
</tbody>
</table>

Livelihood equipment referred to in this paragraph 5 will be fit for purpose and of good quality, taking into account its intended use.

<p>| 5.1 Multi-purpose engine (one engine per 50 families)                      | X                 | $21,600 – Fixed Scope         | Financial Close + 12 months – Financial Close + 60 months |
| 5.2 Rice husker (one unit per 50 families)                                 | X                 | $14,400 – Fixed Scope         | Financial Close + 12 months – Financial Close + 60 months |
| 5.3 Maize sheller (one unit per 50 families)                               | X                 | $10,800 – Fixed Scope         | Financial Close + 12 months – Financial Close + 60 months |
| 5.4 Hammermill (one unit per 50 families)                                  | X                 | $7,200 – Fixed Scope          | Financial Close + 12 months – Financial Close + 60 months |
| 5.5 Forage chopper (one unit per 50 families)                              | X                 | $5,040 – Fixed Scope          | Financial Close + 12 months – Financial Close + 60 months |</p>
<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.6 Oil press (one unit per 50 families)</td>
<td>X</td>
<td>$5,040 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>5.7 Charcoal kiln (one unit per 50 families)</td>
<td>X</td>
<td>$8,784 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>5.8 Mini sawmill (one unit per 100 families)</td>
<td>X</td>
<td>$225,000 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>5.9 Workshop tools (one set per 50 families)</td>
<td>X</td>
<td>$18,000 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
<tr>
<td>5.10 Carpentry tools (one set per 50 families)</td>
<td>X</td>
<td>$10,800 - Fixed Scope</td>
<td>Financial Close + 12 months – Financial Close + 60 months</td>
</tr>
</tbody>
</table>

6 Hand over community forest

6.1 The GOL will hand over the community forest to the Nakai Forest Association after the Association has been established, the Forest Management Plan has been prepared and approved and the forest management contract has been signed as provided in paragraph 7 of clause 9.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/ Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Monitor livelihood development - See clause 5 for details.</td>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close + 12 months</td>
</tr>
</tbody>
</table>

7.1 Resettlement monitoring – RO and RMU monitoring

7.2 Resettlement monitoring – independent external monitor
## 11 Community Development: Planning Stage

### Summary of resettlement activities for this stage and the responsible party

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Set up Village Resettlement Committee in each village</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Each village will appoint its own Village Resettlement Committee (VRC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>men and women selected on a consensus basis to represent village interests.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each VRC will act under the supervision of the relevant DRWG and will receive special training for its assigned tasks.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Develop a training program for the RMU, District Resettlement Working</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups and Village Resettlement Committees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 The RMU is responsible for carrying out a training needs assessment (with technical assistance) for the enhancement of organisational capacity within the RMU, DRWGs and VRCs to carry out their respective obligations during the Resettlement Process and, without limitation, to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>improve planning processes;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assist the Resettlers in adjustment and rehabilitation; and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>enhance performance of their respective responsibilities during the Resettlement Process.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMU staff will be trained to ensure that they have:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a clear understanding of the NT2 Resettlement Policy and the entitlements of Project Affected Persons;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>knowledge of the steps and skills required during the Resettlement Planning Period and the Resettlement Implementation Period and the relevant obligations, including in undertaking social surveys and an understanding of women in development;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the basic capacity to organise District Resettlement Working Groups and Village Resettlement Committees to carry out the resettlement implementation activities, including skills in facilitating community participation; and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the management skills for allocating resettlement tasks and funds, and carrying</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table Data

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x</td>
<td>No budget.</td>
<td>Completed</td>
</tr>
<tr>
<td></td>
<td>Included in general RMU funding (item (f) –Limited by Cost)</td>
<td>January 2002 – Financial Close + 12 months</td>
</tr>
</tbody>
</table>
### Activities

- out effective supervision, monitoring and evaluation through training in:
  - project management;
  - quality management and control; and
  - finance and accounting;
- The organisational capacity of the District Resettlement Working Groups and the Village Resettlement Committees shall also be strengthened through appropriate training, including to facilitate a clear understanding of the Resettlement Objectives, the Resettlement Process, entitlements of Project Affected Persons and livelihood and community development.
- The RMU will also coordinate for members of the Resettlement Committee and managers of the RMU:
  - policy workshops to develop national resettlement policy and regulations for the Project and focus on the process of resettlement planning; and
  - international study tours to witness and learn from experiences of other countries in resettlement.
- RMU and district staff will also work alongside specialists for on-the-job training, technology transfer and skills development.
- Staff from District Resettlement Working Groups, Village Resettlement Committees and Project Affected Persons will also receive on-the-job training through participation in agricultural field tests and forestry training conducted by consultants under contract to the RMU.

### Training activities will include the following:

**Contents Participants**
- Resettlement Policy Workshop
- Community Participation Workshops
- Livelihood Workshops
- Resettlement Action Plan Workshops
- Resettlement Entitlements Workshop
- Social Issues Workshop
- Resettlement Monitoring and MIS Workshop
- Finance and Accounting workshop

*Key

1. DRWG - District resettlement working
### 3 Pre-relocation activities plan

3.1 Pre-relocation activities plan shall include meetings and workshops with villages to discuss and arrange such items as:

- relocation schedule including potential villager constraints
- relocation methods to be used by the RMU
- prior visits to new village site and houseplot
- methods and timing of new house plot development
- special assistance required for vulnerable households
- methods to dismantle old house and transportation of useable materials
- relocation of livestock
- new schooling arrangements
- rituals to be observed
- health concerns
- early training for new livelihood activities
- purpose and payment method/timing of per capita disturbance allowance
- other activities to assist villagers in preparing for the move

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td>X Included in general RMU funding (item f) – Limited by Cost</td>
</tr>
</tbody>
</table>

### 4 Community development plan

4.1 The community development plan will incorporate:

- coordination of the pilot village activities on behalf of the Resettlers;
- establishment of the framework for community management of the forestry and fisheries resources;
- establishment of the organisational structure for managing the resources;
- training of the key village level officials in their respective responsibilities;

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
<td>X $180,000 – Limited by Cost</td>
</tr>
</tbody>
</table>
### Activities

- provision for ensuring that workable income sharing arrangements are made;
- development of procedures to identify and support vulnerable households; and
- monitoring and evaluation of progress;

The community development plan will:
- raise awareness of community organisations;
- form village level community groups;
- identify and support community economic activities;
- involve both men and women in activities;
- organise extension programmes through village level groups;
- mobilise community groups for special activities; and
- train office bearers for community organisations.

## 5 Consult the villages on community development plan

5.1 RMU to consult with villages on community development plan

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company (RO)</strong></td>
<td>X</td>
<td>Financial Close – Financial Close + 24 months</td>
</tr>
<tr>
<td><strong>GOL (RMU)</strong></td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td></td>
</tr>
</tbody>
</table>
12 Community Development: Implementation Stage

Summary of resettlement activities for this stage and the responsible party

<table>
<thead>
<tr>
<th>Activities</th>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Resettlers health program</td>
<td>X</td>
<td>$440,010 – Limited by Cost</td>
<td>Financial Close – End of Resettlement</td>
</tr>
</tbody>
</table>

1.1 Health program delivery will take place twice per year per person in all resettled and adjacent communities, including construction and camp follower camps and those living within one kilometre of the Downstream Channel.

Targeted quantity of health checks to be: 48,990 checks

The health programme will follow GOL national and provincial policies and targets and, in the long term, combine health care activities with the GOL provincial and country-wide programs. In the short term, province, district and village levels shall coordinate to:

- inform communities on endemic diseases, control programmes and correct health care measures which can be individually carried out;
- ensure a sufficiency of essential drugs;
- train and transfer appropriate technology among health workers and practitioners;
- provide support to disease control programmes including their supervision;
- ensure the timely monitoring of health status and health services implementation; and
- ensure the strengthening of health and volunteer personnel.

Health workers will be strengthened through Project-assisted programmes which:

- provide opportunities for individual and collective training through international training, short study and training tours in Thailand, locally organised training and the development of teaching and job aids; and
- improve supervision at all levels.

Support to disease control programmes will be through the:

- provision of technical support;
- availability of essential drugs and other supplies necessary to the programme;
- collaboration in programme.
### Activities

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company (RO)</strong></td>
<td><strong>GOL (RMU)</strong></td>
<td></td>
</tr>
</tbody>
</table>

- **Implementation; development and production of health information materials; and assistance with evaluation and analysis of data.**

#### 2 Provide income support

2.1 The RMU shall coordinate the provision of income support incorporating the following key principles:

- households having no male working members and with old or infirm adults will receive income supplements from the forestry resource dividend fund established by the Nakai Plateau Forestry Association; and

- during the Resettlement Implementation Period, the Company will provide to the RMU (for distribution in accordance with regulations made under the NT2 Resettlement Policy) 440 kg of rice per person relocated.

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
<tr>
<td>X</td>
<td>$589,190 – Fixed Scope</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>

2.2 The RMU shall arrange for the provision and distribution of the transitional income support.

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close – End of Resettlement Implementation Period</td>
</tr>
</tbody>
</table>

#### 3 Construct social infrastructure

3.1 See details above, paragraph 5 of clause 8.

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL</td>
<td>Refer to paragraph 5 of Clause 8</td>
<td></td>
</tr>
</tbody>
</table>

#### 4 Establish guidelines for community development fund with forest resource dividends

4.1 RMU to establish guidelines for community development fund with forest resource dividends

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Included in general RMU funding (item (f) – Limited by Cost)</td>
<td>Financial Close – Financial Close+24 months</td>
</tr>
</tbody>
</table>

#### 5 Commence monitoring of community development using social indicators – See clause 5.

5.1 Resettlement monitoring – RO and RMU monitoring

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Budget Amount and Description</th>
<th>Time Schedule Starting Date/Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>GOL Funding is included in general RMU funding (Item (f) – Limited by Cost)</td>
<td>Financial Close – end of Resettlement Implementation Period</td>
</tr>
<tr>
<td>Activities</td>
<td>Responsible Party</td>
<td>Budget Amount and Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>5.2 Resettlement monitoring – independent external monitor</td>
<td>Company (RO)</td>
<td>GOL (RMU)</td>
</tr>
</tbody>
</table>
13. **Grievance Procedure**

13.1 **Purpose of Grievance Procedure**

The purpose of the Grievance Procedure shall be to allow Project Affected Persons to seek satisfactory resolution to grievances they may have in relation to the Resettlement Process and to ensure that:

(a) the basic rights and interests of Project Affected Persons are protected;

(b) the concerns of Project Affected Persons arising from the Resettlement Process are adequately addressed; and

(c) entitlements of Project Affected Persons are provided on time and in accordance with the Concession Agreement.

13.2 **Access to the Grievance Procedure**

Project Affected Persons shall have access to the Grievance Procedure free of charge for the above purposes.

13.3 **Structure of Grievance Procedure**

The Grievance Procedure shall comprise four (4) steps described in clauses 13.4 to 13.7 below and as illustrated here.

![Grievance Procedure Diagram]

13.4 **Step 1 of Grievance Procedure: Village Resettlement Committee**

(a) A Project Affected Person wishing to make a claim (a "Claimant") must first make a claim to his Village Resettlement Committee.

(b) The claim may be made orally or in writing, and should include brief details of the
grievance, including:

(i) the factual background;

(ii) the issues; and

(iii) the Claimant’s position on these issues.

(c) The Village Resettlement Committee must:

(i) review the claim within the context of existing policy, regulations, procedures and entitlements for Project Affected Persons as provided for in the Concession Agreement;

(ii) not award compensation that exceeds the budget set by the Resettlement Committee for the purpose;

(iii) respond within fifteen (15) days of receipt of the claim; and

(iv) inform the Claimant of his right to take the claim to the District Resettlement Working Group for review and decision.

13.5 Step 2 of Grievance Procedure: District Resettlement Working Group

(a) If the Claimant is not satisfied with the decision of the Village Resettlement Committee, the Claimant may submit the claim to their District Resettlement Working Group for review and decision.

(b) The relevant District Resettlement Working Group must:

(i) review the claim within the context of existing policy, regulations, procedures and entitlements for Project Affected Persons as provided for in the Concession Agreement;

(ii) not award compensation that exceeds the budget set by the Resettlement Committee for the purpose;

(iii) respond to the Claimant within fifteen (15) days of receipt of the claim; and

(iv) inform the Claimant of his right to take the claim to the RMU for review and decision.

13.6 Step 3 of Grievance Procedure: RMU

(a) If the Claimant is not satisfied with the decision of the District Resettlement Working Group, the Claimant may submit the claim to the RMU for review and decision.

(b) The RMU must:

(i) review the claim within the context of existing policy, regulations, procedures and entitlements for Project Affected Persons as provided for in the Concession Agreement;

(ii) not award compensation that exceeds the budget allocated by the Resettlement Committee for that purpose;
(iii) respond in writing to the Claimant within fifteen (15) days of receipt of the claim,

(iv) provide reasons for the decision, and

(v) inform the Claimant of his right to take the claim to the Grievance Committee for review and decision.

13.7 Step 4 of the Grievance Procedure: Grievance Committee

(a) If the Claimant is not satisfied with the decision of the RMU, he may submit the claim to the committee appointed by the Resettlement Committee (“Grievance Committee”).

(b) Upon receipt of the claim, the Grievance Committee may carry out its own investigations and arrange meetings with responsible agencies (such as the RMU and the RO), as appropriate.

(c) The Grievance Committee must:

(i) make a decision within thirty (30) days of receipt of the claim;

(ii) inform the Claimant and the RMU of the decision; and

(iii) provide reasons for the decision.

(d) The findings of the Grievance Committee are binding on the RMU and the RO.

(e) The Grievance Committee must maintain a public record of all claims received from Project Affected persons and the decisions made by the Grievance Committee.

(f) A decision from the Grievance Committee may be appealed to the Lao PDR Courts in accordance with Lao PDR Law.

13.8 Company to be informed

(a) The Company, through the RO, shall be promptly informed by GOL of any claim raised under the Grievance Procedure at the RMU level within [ten] ([10]) days after the claim is first received.

(b) The GOL shall inform the Company of the final resolution of each claim.

13.9 Funding for compensation made pursuant to the Grievance Procedure

Any compensation payments made as a result of the Grievance Procedure shall be funded from the appropriate budget item of this Part or, if needed, from the contingency budget (Budget item (c) of Clause 15).
14. Entitlements of Project Affected Persons

Paragraph 1 Categories of Project Affected Persons

<table>
<thead>
<tr>
<th>Category of Project Affected Person</th>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 - In the Reservoir Area</td>
<td>Resettlers:</td>
</tr>
<tr>
<td></td>
<td>1 Housing</td>
</tr>
<tr>
<td></td>
<td>• the labour cost associated with the dismantling of existing house</td>
</tr>
<tr>
<td></td>
<td>• transportation of dismantled housing materials to new house/farm lot</td>
</tr>
<tr>
<td></td>
<td>• provision of new materials for construction of new house</td>
</tr>
<tr>
<td></td>
<td>• construction of new house or equivalent labour cost paid</td>
</tr>
<tr>
<td></td>
<td>• house design to be approved by the village but to be in accordance with the basic design set out in Attachment B hereto</td>
</tr>
<tr>
<td></td>
<td>• 14m² of construction area per person</td>
</tr>
<tr>
<td></td>
<td>• minimum housing area not less than existing area or 42m²</td>
</tr>
<tr>
<td></td>
<td>• households with 7 or more persons containing two families have the option to have two houses</td>
</tr>
<tr>
<td></td>
<td>• sheds, other outbuildings and fencing will be provided to the household;</td>
</tr>
<tr>
<td></td>
<td>• construction will utilise materials from the dismantled house, with own labour paid</td>
</tr>
<tr>
<td></td>
<td>2 House/Farm Land:</td>
</tr>
<tr>
<td></td>
<td>• 0.5 ha per household</td>
</tr>
<tr>
<td></td>
<td>• up to 0.2 ha of rice land per household (in off-lot location, to be developed/allocated on a community basis)</td>
</tr>
<tr>
<td></td>
<td>• land provided with survey, and joint title to husband and wife</td>
</tr>
<tr>
<td></td>
<td>• land to be cleared and prepared for construction and cultivation by owner, with own labour paid</td>
</tr>
<tr>
<td></td>
<td>• house to be constructed on this land in location acceptable to owner in consultation with the Company and the GOL</td>
</tr>
<tr>
<td></td>
<td>3 Infrastructure:</td>
</tr>
<tr>
<td></td>
<td>• irrigation water to the house/farm lot boundary and distribution system</td>
</tr>
<tr>
<td></td>
<td>• irrigation to rice lands</td>
</tr>
<tr>
<td></td>
<td>• year-round household water supply</td>
</tr>
<tr>
<td></td>
<td>• electricity to the house</td>
</tr>
<tr>
<td></td>
<td>• road access to house/farm lot</td>
</tr>
<tr>
<td></td>
<td>• school access within 3km</td>
</tr>
<tr>
<td></td>
<td>• clinic access within 5km</td>
</tr>
<tr>
<td></td>
<td>4 Services:</td>
</tr>
<tr>
<td></td>
<td>• transportation of all household assets to new location</td>
</tr>
</tbody>
</table>
|                                      | • health check of all household members prior to and after
<table>
<thead>
<tr>
<th>Category of Project Affected Person</th>
<th>Entitlements</th>
</tr>
</thead>
</table>
| move                               | - access to RMU for advice  
- access to Grievance Procedure for complaints |
| 5 Cash:                            | - one-time cash allowance to cover moving time, disturbance - USD15 per person (included in Clause 15, Item 8.4)  
- compensation for fruit trees and standing crops lost at district prevailing prices (included in Clause 15, Item 8.9) |
| 6 Production Assistance:           | - effective access to a range of feasible production and income generation options to meet pre-determined household income target, including production forest and Reservoir fisheries  
- tools to work the farm land and forest land  
- planting materials for 3 years after preparation of farm lot, including fruit tree saplings  
- fertiliser and other agro-chemicals for 3 years after preparation of farm lot  
- training in farming, forest management and fisheries techniques  
- agricultural advice for 5 years after preparation of farm lot  
- access to identified forests for collection of non-timber forest products  
- access to identified Reservoir drawdown areas  
- skills training for wage labour jobs  
- household budgeting training  
- income support program until Household Income Target reached, at 113 kg of rice per person for each of 4 years  
- households with economically inactive members and other vulnerable households to participate in the production benefits from communal forests through the provision of a basic needs allowance as determined by the village. |
| 7 Departees                        | - Those wishing to permanently leave the District and not move to a resettlement site will receive a one-time payment for the value of the land, trees, production, and structures lost, plus transportation and disturbance allowances. |

**A2 - Surrounding the Reservoir Area**

All those living in the area surrounding the Reservoir Area who have work lands in the Reservoir Area and derive benefits from such lands.

**Surrounding Households with Reservoir land**

These households will have two options:

(a) receive cash compensation for the loss of land;
(b) same as Reservoir households, in case they opt for relocation into a new village with farm/house plot.

**A3 - Surrounding the Reservoir Area**

All those living in the area surrounding the Reservoir Area who are adversely affected by the Project or by the

These households will receive compensation according to their losses.
### Category of Project Affected Person

<table>
<thead>
<tr>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resettlement.</strong></td>
</tr>
<tr>
<td><strong>B. Power Station, Regulating Pond, Regulating Dam and Downstream Channel from Regulating Dam to the Xe Bang Fai River</strong></td>
</tr>
<tr>
<td>All those adversely affected by the construction and operation of the Downstream Channel, either through loss of land and infrastructure or economic loss or disturbance. Upon finalisation of the alignment of the downstream channel, a detailed survey of impacts will be conducted to identify eligible categories of affected persons.</td>
</tr>
<tr>
<td>1 Housing if required for right-of-way or construction of Downstream Channel:</td>
</tr>
<tr>
<td>• as per housing for Reservoir Area households (see A.1)</td>
</tr>
<tr>
<td>2 Land (home lot and production land):</td>
</tr>
<tr>
<td>• if 25 percent or more of the land is required, the Project Affected Person is entitled to sell the entire land to the Project and receive compensation accordingly</td>
</tr>
<tr>
<td>• if less than 25 percent of the land is required and the remaining land is not economically viable for production the Project Affected Person is entitled to sell the entire land to the Project and receive compensation accordingly</td>
</tr>
<tr>
<td>• the replacement value of the land is its local market value of the year in which the compensation is paid</td>
</tr>
<tr>
<td>• the compensation can be cash or the provision of replacement land of equal size and productivity (in the vicinity of the home lot)</td>
</tr>
<tr>
<td>3 Trees:</td>
</tr>
<tr>
<td>• fruit trees compensated at district prevailing prices</td>
</tr>
<tr>
<td>• other trees compensated at stumpage value</td>
</tr>
<tr>
<td>4 Land and disturbance allowance: ten percent of the amount calculated under Item 2 above.</td>
</tr>
<tr>
<td>• Infrastructure or economic losses will be compensated at replacement cost (on a community consensus basis).</td>
</tr>
<tr>
<td><strong>C. Downstream of Nakai Dam to the Mekong River, Nam Kathang, Xe Bang Fai and road from Thakhek to the Project site.</strong></td>
</tr>
<tr>
<td>All those living or working along natural rivers downstream to the Mekong river who will be adversely affected by the operation of the Project either through loss of land or infrastructure or economic loss or disturbance.</td>
</tr>
<tr>
<td>• Infrastructure or economic losses will be compensated at replacement cost (on a community consensus basis).</td>
</tr>
<tr>
<td><strong>D. NT2 Resettlement Area, Road from Ban Nan Nian to Lak Sao, Quarry Area near Lak Sao, Access Roads, Dam Construction Area, Power Station Construction Area,</strong></td>
</tr>
<tr>
<td>All those adversely affected by the construction and operation of these facilities, either through loss of land and infrastructure or economic loss or disturbance.</td>
</tr>
<tr>
<td><strong>E. Transmission System and GOL Transmission Assets:</strong></td>
</tr>
<tr>
<td>All those adversely affected by the construction and operation of the Transmission System and the GOL Transmission Assets, either through loss of land and infrastructure or economic loss or disturbance.</td>
</tr>
<tr>
<td>As per downstream channel households under B.</td>
</tr>
<tr>
<td>As per downstream channel households under B as determined after exact route location finalised and impacts established.</td>
</tr>
</tbody>
</table>
15. **Funding Arrangements**

15.1 **General**

(a) The Company shall be responsible for:

(i) performing (at its cost) all of the resettlement activities for which it is nominated as the responsible party in this Part in accordance with clause 30.5 of the Concession Agreement; and

(ii) funding all the resettlement activities for which the GOL is nominated as the responsible party in this Part, and activities that the GOL elects to perform in accordance with clause 30.6 of the Concession Agreement.

(b) The Company’s funding obligation in paragraph (a)(ii) shall include:

(i) the cost of the general activities of the Government Authorities involved in the Resettlement Process (including the RC, the RMU, the District Resettlement Working Groups, Village Resettlement Committees) as referred to in clause 4, through the funding of the RMU described in clause 15.6, budget item (f);

(ii) the cost of the independent monitoring agency as contemplated in clause 5.4, through the budget item (a) in clause 15.6;

(iii) an additional annual payment pursuant to clause 15.4 of USD 300,000 for each year of the Operating Phase for the Social and Environmental Remediation Fund, as escalated in accordance with clause 15.5; and

(iv) awards of compensation to Project Affected Persons under the Grievance Procedure in accordance with clause 13.9.

(c) The GOL shall be responsible for performing all the resettlement activities for which it is nominated as the responsible party in this Part and all of the resettlement activities that the GOL elects to perform in accordance with clause 30.6 of the Concession Agreement.

(d) The resettlement activities to be performed by the Company or the GOL are either:

(i) expressed as having a budget and being Limited by Cost; or

(ii) expressed as having a budget and being Fixed Scope.

15.2 **Funding of Resettlement Works to be carried out prior to Financial Close**

(a) Prior to the occurrence of Financial Close, the Company may elect, but shall not be obliged, to undertake all or any of the following resettlement activities, being resettlement activities to which the development budget set out in item (b) of clause 15.6 applies, namely work for which the Company is responsible in respect of:

(i) the pilot village, as described in paragraph 5 of clause 7;

(ii) the demonstration farms, as described in paragraph 2 of clause 9; and
Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

(iii) technical assistance to support the resettlement activities.

(b) If the Company does not elect to implement the resettlement activities referred to in paragraph (a) before the occurrence of Financial Close then such resettlement activities will be carried out at the beginning of the Resettlement Planning Period.

(c) Resettlement Works, including planning, preparation and implementation activities, shall not be undertaken prior to the occurrence of Financial Close or ad hoc unless the RC has first approved those activities as part of a quarterly or ad hoc plan in agreement with the Company, and the Company has agreed to fund such activities.

(d) The Company shall pay into such bank account as shall be nominated by the GOL, in advance of the implementation of each quarterly or ad hoc plan approved by the RC, such funding as may be agreed in (c) for any resettlement activities included in that plan to be carried out by the RC, the RMU, the DRWGs, the VRCs and the other Government Authority, as part of the budget item (f) in clause 15.6.

15.3 Funding of Resettlement Works to be carried out after Financial Close

(a) The Company shall pay on a quarterly basis into such bank account as may be nominated by the GOL, in advance of the implementation of each plan approved by the RC under clause 4.2(c) and agreed by the Company, funding for any resettlement activities included in that plan to be carried out by the GOL.

(b) At the end of the period of each plan, the RMU will submit to the Company a report showing the completed tasks and documenting the use of the corresponding funding with necessary supporting documents. If it appears that tasks have not been achieved as planned or that the budget has not been used in accordance with the agreed plan, the Company and the GOL will meet together in order to agree on the measures to be taken in order to remedy the situation.

15.4 Establishment of the Social and Environmental Remediation Fund

(a) Prior to the occurrence of the Commercial Operations Date, the GOL through the RC shall establish and maintain a fund (the "Social and Environmental Remediation Fund") for the purpose of funding:

(i) the operation and maintenance costs of the community water and irrigation systems for the Resettlement Area;

(ii) the maintenance of the GOL Resettlement Assets in accordance with Good Operating Practices for the Concession Period;

(iii) any initiatives designed to mitigate and address any remaining problems which have arisen or which may arise in the future, whether before or after the occurrence of the Commercial Operations Date, from the Resettlement Process; and

(iv) any initiatives designed to mitigate and address any resettlement activities set out in this Part to be funded by the Social and Environmental Remediation Fund.

(b) The Company shall pay into such bank account for the Social and Environmental Remediation Fund as may be nominated by the GOL the amount of USD 300,000, as escalated in accordance with clause 15.5, for each year of the Operating Phase, payable in two instalments in each such year as follows namely:
Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

(i) the first instalment for the first year shall be paid within (3) months of the occurrence of the Commercial Operations Date;

(ii) the second instalment for the first year shall be paid within (9) months of the occurrence of the Commercial Operations Date; and

(iii) the instalments in each subsequent year shall be paid on the dates which are the anniversaries in that year of the payment dates for the two instalments paid in the first year,

provided that if any such payment date is not a Business Day then the relevant instalment shall be paid not later than the immediately following Business Day.

(c) To give effect to paragraph (b), the RC shall instruct the RMU to open and maintain such bank accounts in the name of the RC in the Lao PDR for the purposes of managing the Social and Environmental Remediation Fund and in such currencies as the RC shall determine, but without being obligated to convert from any currency to another currency.

(d) The GOL, through the RMU, shall deposit all moneys referred to in paragraph (b) into the bank accounts referred to in (c) and may pay from the moneys standing to the credit of those accounts at any time:

(i) disbursements incurred in accordance with annual budgets approved by the RC; and

(ii) any other payments for purposes related to Resettlement Process or the Project,

upon the signature of persons authorised by the RC and pursuant to a resolution of the RC.

(e) The Company agrees with the GOL that each annual payment of USD300,000 as escalated in accordance with clause 15.5, shall be considered to be a budget which is Limited by Cost, for the purposes of clause 30.7(a)(i) of the Concession Agreement.

(f) In the event that the GOL reasonably considers that the annual payment is insufficient in any year and the Fund is then reduced to USD10,000 or less, and the GOL can provide reasonable supporting evidence to the Company to justify additional expenditure, the Company agrees for the purposes of clause 30.7(e)(i) of the Concession Agreement that the budget amount referred to in paragraph (e) shall be subject to the Overrun Allowance in accordance with the Concession Agreement.

15.5 Formula for escalation of the Social and Environmental Remediation Fund Payment

Each instalment payment to be made by the Company pursuant to clause 15.4(b) to the Environmental and Social Remediation Fund shall be the amount which results from the application of the Escalation Formula on the date which falls five (5) Business Days prior to its payment date where for the purposes of the Escalation Formula:

(a) "A" is the amount in Dollars of that instalment resulting from the calculation payable by the Company for the Environmental and Social Remediation Fund on the relevant payment date as set out in clause 15.4(b);

(b) "B" is USD 150,000;

(c) "C" is 1.00;
Appendix A.1: Concession Agreement - Schedule 4 Part 1: Social Component

(d) "D" is the CPI for the month which falls six (6) clear months prior to the date on which the Escalation Adjustment is to be calculated; and

(e) "E" is the CPI for the month which falls six (6) clear months prior to the date of the Concession Agreement.

15.6 Summary of Company funding for resettlement activities

(a) All of the budget amounts for the resettlement activities of the Company and the GOL under this Part are summarised in clause 15.6 (c), the table in which contains the following details:

(i) column 1 identifies the clause of this Part which relates to the relevant item;

(ii) column 2 numbers the budget items;

(iii) column 3 summarises the activity from the clause referred to in column 1; and

(iv) column 4 identifies the responsible party as referred to in the relevant clause.

(b) The budget columns are split in six (6) categories as follows, namely:

(i) the column marked "Development Stage Maximum Amount", which relates to any development activities carried out prior to Financial Close as referred to in clause 15.2. This is covered by budget item (b) for USD2,500,000 of which the Sponsors have already spent USD2,100,00 as Development Costs. The remaining balance of USD400,000 will be spent either before the Financial Close or after Financial Close, as permitted in clause 15.2;

(ii) the budget column marked "Estimated Construction Costs – Cost Estimate (Fixed Scope)", which relates to the resettlement activities which are included in the scope of works of the Head Construction Contract (budget items (w) and (x) in clause 15.6 (c)) for an estimated amount of USD10,100,000. This is for information only, as the real cost will be the result of the Head Construction Contract negotiation;

(iii) the budget column marked "Pre Operating Phase Budget – Fixed Scope", which relates to the resettlement activities of the Company and the GOL as specified in clause 15.1(d)(ii) for which the budget is Fixed Scope, and which will be performed before the GOL Project Completion Date;

(iv) the budget column marked "Pre Operating Phase Budget – Fixed Maximum Amount", which relates to the resettlement activities of the Company and the GOL as specified in clause 15.1(d)(i) for which the budget items are Limited by Cost, and which will be performed before the GOL Project Completion Date;

(v) the budget column marked "Operating Phase Budget – Lump Sum Maximum Amount", which relates to the resettlement activities of the Company and the GOL as specified in clause 15.1(d)(i) for which the budget items are Limited by Cost, and which will be performed after the GOL Project Completion Date;

(vi) the budget column marked “Operating Phase Budget - Fixed Scope” which relates to the resettlement activities of the Company as specified in clause 15.1(d)(ii) for which the budget is Fixed Scope, and which will be performed after the GOL Project Completion Date.
### 15.6(c) Summary and Limitations of Company’s Funding Obligations for Part 1 of Schedule 4

<table>
<thead>
<tr>
<th>Clause Reference</th>
<th>Budget Item</th>
<th>Social Component Activity Description (refer to relevant clause for further details)</th>
<th>Responsible Party (if both parties are involved, this column indicates the lead party)</th>
<th>Development Stage Maximum Amount (USD)</th>
<th>Pre-Operating Phase Budget (USD)</th>
<th>Lump Sum Maximum Amount (USD) (Limited by Cost)</th>
<th>Operating Phase Budget</th>
<th>Fixed Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4(d) (a)</td>
<td></td>
<td>5.4(d) (a) External Monitoring Budget</td>
<td></td>
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<td></td>
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<tr>
<td>7.1 (b)</td>
<td></td>
<td>7.1 (b) Population survey and registration</td>
<td>GOL(RMU)</td>
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</tr>
<tr>
<td>7.2 (b)</td>
<td></td>
<td>7.2 (b) Survey village land areas and suitability (irrigation and soil condition)</td>
<td>Company (RO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.3 (b)</td>
<td></td>
<td>7.3 (b) Plan village locations</td>
<td>Company (RO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.4 (b)</td>
<td></td>
<td>7.4 (b) Consult villages on village location and planning</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7.5 (b)</td>
<td></td>
<td>7.5 (b) Prepare and move pilot village</td>
<td>Company (RO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.6 (b)</td>
<td></td>
<td>7.6 (b) Prepare detailed site plans and plot plans</td>
<td>Company (RO)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7.7 (b)</td>
<td></td>
<td>7.7 (b) Consult with villages on the plans</td>
<td>GOL(RMU)/Company</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7.8 (b)</td>
<td></td>
<td>7.8 (b) Finalise the location for each household</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7.9 (b)</td>
<td></td>
<td>7.9 (b) Inform households of their location</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.10.1 (c)</td>
<td></td>
<td>7.10.1 (c) UXO survey for Resettlement Areas</td>
<td>Company (RO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.10.2 (c)</td>
<td></td>
<td>7.10.2 (c) UXO clearing for Resettlement Areas</td>
<td>Company (RO)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7.10.3 (c)</td>
<td></td>
<td>7.10.3 (c) UXO community awareness program</td>
<td>Company (RO)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7.10.4 (c)</td>
<td></td>
<td>7.10.4 (c) UXO “on-call roving capability”</td>
<td>Company (RO)</td>
<td></td>
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</tr>
<tr>
<td>7.11.1 (b)</td>
<td></td>
<td>7.11.1 (b) Xe Bang Fai fisheries baseline</td>
<td>Company (RO)</td>
<td></td>
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<td></td>
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<tr>
<td>7.11.2 (d)</td>
<td></td>
<td>7.11.2 (d) Monitoring of Xe Bang Fai fisheries</td>
<td>Company (RO)</td>
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<td></td>
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<tr>
<td>7.11.3 (b)</td>
<td></td>
<td>7.11.3 (b) Xe Bang Fai socio-economic baseline</td>
<td>Company (RO)</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>7.11.4 (e)</td>
<td></td>
<td>7.11.4 (e) Monitoring of Xe Bang Fai socio-economics</td>
<td>Company (RO)</td>
<td></td>
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</tr>
</tbody>
</table>

- Estimated Construction Costs (Estimate, Fixed Scope)
- Fixed Maximum Amount (Limited by Cost)
- Lump Sum Maximum Amount (USD) (Limited by Cost)
- Fixed Scope
<table>
<thead>
<tr>
<th>Clause Reference</th>
<th>Budget Item</th>
<th>Social Component Activity Description</th>
<th>Responsible Party</th>
<th>Development Stage Maximum Amount (USD)</th>
<th>Pre-Operating Phase Budget (USD)</th>
<th>Operating Phase Budget</th>
<th>Lump Sum Maximum Amount (USD)</th>
<th>Fixed Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1.2 (f)</td>
<td>Obtain land certificate from Provincial Government</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.2 (g)</td>
<td>Clear Village sites - Land clearing and fencing</td>
<td>GOL (RMU)</td>
<td></td>
<td></td>
<td>269,473</td>
<td></td>
<td></td>
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<tr>
<td>8.3 (f)</td>
<td>Develop a mechanism to distribute farm/house plots among households</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
<td></td>
<td>Included in item (f)</td>
<td></td>
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</tr>
<tr>
<td>8.4 (g)</td>
<td>Organise the villages for relocation, including transport</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
<td>249,649</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.5 except para 19 and 21 (h)</td>
<td>Design and construct infrastructure and equipment</td>
<td>Company(RO )</td>
<td></td>
<td></td>
<td>5,341,211</td>
<td></td>
<td></td>
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<tr>
<td>8.5.19 (f)</td>
<td>Prepare cultural heritage plans</td>
<td>GOL(RMU)</td>
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<td></td>
<td></td>
<td>Included in item (f) General RMU funding</td>
<td></td>
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<tr>
<td>8.5.21 (x)</td>
<td>Construction Costs – 20 MW Transformer and associated switchyard auxiliaries for 22kV local supply</td>
<td>Company</td>
<td></td>
<td></td>
<td>1,300,000</td>
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<td>8.6 (g)</td>
<td>Construction of house for each family of Resettlers</td>
<td>Company(RO )</td>
<td></td>
<td></td>
<td>2,058,114</td>
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<td>8.7 (f)</td>
<td>Physical relocation</td>
<td>GOL(RMU)</td>
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<td>Included in item (f)</td>
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<td>8.8.1(b) (f)</td>
<td>Internal resettlement monitoring by GOL</td>
<td>GOL (RMU)</td>
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<td>Included in item (f)</td>
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<td>8.8.2 (a)</td>
<td>External resettlement monitoring</td>
<td>GOL (RMU)</td>
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<td>Included in item (a)</td>
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<tr>
<td>8.9.2.2 (i)</td>
<td>Provide entitlements to Project Affected Persons – Regulating Pond &amp; Downstream Channel area</td>
<td>GOL(RMU)</td>
<td></td>
<td></td>
<td>247,020</td>
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<td>8.9.3.1 (j)</td>
<td>Provide entitlements to Project Affected Persons – Upper Xe Bang Fai area</td>
<td>GOL(RMU)</td>
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<td>1,000,000</td>
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<td>8.9.3.2 (k)</td>
<td>Provide entitlements</td>
<td>GOL(RMU)</td>
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<td>Clause Reference</td>
<td>Budget Item</td>
<td>Social Component Activity Description</td>
<td>Responsible Party</td>
<td>Development Stage Maximum Amount (USD)</td>
<td>Pre-Operating Phase Budget (USD)</td>
<td>Operating Phase Budget</td>
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<td>(refer to relevant clause for further details)</td>
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<td>Estimated Construction Costs ( Estimate, Fixed Scope)</td>
<td>Fixed Scope</td>
<td>Fixed Maximum Amount (USD) (Limited by Cost)</td>
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<td>Lump Sum Maximum Amount (USD) (Limited by Cost)</td>
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<td>Fixed Scope</td>
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<td>8.9.4.2 (l)</td>
<td>(l)</td>
<td>Provide entitlements to Project Affected Persons – Middle Xe Bang Fai area</td>
<td>GOL(RMU)</td>
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<td>50,000</td>
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<td>8.9.5.2 (m)</td>
<td>(m)</td>
<td>Provide entitlements to Project Affected Persons – Power Station and Transmission Lines</td>
<td>GOL (RMU)</td>
<td></td>
<td>60,000</td>
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<td>8.10</td>
<td>(n)</td>
<td>Regional Health Program</td>
<td>GOL(RMU)</td>
<td></td>
<td>1,094,000</td>
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<tr>
<td>9.2</td>
<td>(b)</td>
<td>Demonstration farm</td>
<td>Company(RO)</td>
<td>Included in the $2.5 million development stage budget – Item (b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.3</td>
<td>(b)</td>
<td>Identify forest resource</td>
<td>Company(RO)</td>
<td>Included in the $2.5 million development stage budget – Item (b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.4.1</td>
<td>(f)</td>
<td>Consult with Reservoir villages on livelihood issues</td>
<td>GOL(RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5</td>
<td>(b)</td>
<td>Establish three farm/house plots and relocate three households</td>
<td>Company(RO)</td>
<td>Included in the $2.5 million development stage budget – Item (b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.6</td>
<td>(b)</td>
<td>Evaluation of three pilot farms</td>
<td>Company (RO)</td>
<td>Included in item (b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.7</td>
<td>(o)</td>
<td>Community Forestry Program</td>
<td>Company(RO)</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9.8</td>
<td>(p)</td>
<td>Livestock Improvement Program</td>
<td>Company(RO)</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
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<tr>
<td>9.9</td>
<td>(q)</td>
<td>Agricultural Development Program</td>
<td>Company(RO)</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.10</td>
<td>(f)</td>
<td>Consult with villagers on livelihood packages</td>
<td>GOL(RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clause Reference</td>
<td>Budget Item</td>
<td>Social Component Activity Description (refer to relevant clause for further details)</td>
<td>Responsible Party (if both parties are involved, this column indicates the lead party)</td>
<td>Development Stage Maximum Amount (USD)</td>
<td>Pre-Operating Phase Budget (USD)</td>
<td>Operating Phase Budget</td>
<td></td>
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</tr>
<tr>
<td>9.11 (r)</td>
<td>10.1 (q)</td>
<td>Clear and prepare rice areas</td>
<td>Company (RO)</td>
<td></td>
<td>Included in item (q)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.2 (f)</td>
<td>10.3 (g)</td>
<td>Training for Resettlers on new farming techniques, including irrigated rice</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.4 (f)</td>
<td>Training on other income generation activities and technical support</td>
<td>GOL (RMU)</td>
<td></td>
<td>320,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.5 (s)</td>
<td>Provide other livelihood equipment</td>
<td>GOL (RMU)</td>
<td></td>
<td>326,664</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.6 (f)</td>
<td>Hand over community forest</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.7.1 (f)</td>
<td>Monitor livelihood development</td>
<td>Company (RO) / GOL (RMU)</td>
<td></td>
<td>RMU funding included in Item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.7.2 (a)</td>
<td>Monitor livelihood development external monitoring</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.1 (f)</td>
<td>Set up Village Resettlement Committee in each village</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.2 (f)</td>
<td>Develop training program for RMU, District Working Groups &amp; Village Resettlement committees</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.3 (f)</td>
<td>Pre-relocation activities plan</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.4 (t)</td>
<td>Community development plan</td>
<td>GOL (RMU)</td>
<td></td>
<td>180,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.5 (f)</td>
<td>Consult the villages on community development plan</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>12.1 (u)</td>
<td>Resettlers health program</td>
<td>GOL (RMU)</td>
<td></td>
<td>440,010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.2 (f)</td>
<td>Prepare income</td>
<td>GOL (RMU)</td>
<td></td>
<td>Included in item</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clause Reference</td>
<td>Budget Item</td>
<td>Social Component Activity Description (refer to relevant clause for further details)</td>
<td>Responsible Party (if both parties are involved, this column indicates the lead party)</td>
<td>Development Stage Maximum Amount (USD)</td>
<td>Pre-Operating Phase Budget (USD)</td>
<td>Operating Phase Budget</td>
<td>Estimated Construction Costs (Estimate, Fixed Scope)</td>
<td>Fixed Scope - (Limited by Cost)</td>
</tr>
<tr>
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</tr>
<tr>
<td>12.2 (t)</td>
<td>Distribution of income support</td>
<td>GOL(RMU)</td>
<td>589,190 (including operating phase)</td>
<td></td>
<td>See pre-operating phase budget</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.3 (h)</td>
<td>Construct social infrastructure</td>
<td>Company (RO)</td>
<td>Included in item (h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>12.4 (f)</td>
<td>Establish guidelines for community development fund with forest resource dividends</td>
<td>GOL(RMU)</td>
<td></td>
<td>Included in item (f)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.5.1 (f)</td>
<td>Commence monitoring of community development using social indicators</td>
<td>GOL(RMU)/ Company (RO)</td>
<td>RMU funding included in item (f)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.5.2 (a)</td>
<td>Commence monitoring of community development using social indicators external monitoring</td>
<td>GOL (RMU)</td>
<td>Included in item (a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.1 (b) (f)</td>
<td>RMU Budget for 8 Years (including 2 years post-COD)</td>
<td>GOL(RMU)</td>
<td>2,926,000</td>
<td>326,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.9 &amp; 7.10 (c)</td>
<td>Contingency including UXO clearance Grievance Procedure Outcomes and increase in eligible persons</td>
<td>Company(RO)/GOL(RMU)</td>
<td>3,318,936</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.4 (v)</td>
<td>Social and Environmental Remediation Fund (SERF) - $300,000 for each year of the Operating Phase</td>
<td>GOL (RMU)</td>
<td></td>
<td>7,500,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.13 (w)</td>
<td>Construction Costs – Downstream Channel relocation to Nam Phit</td>
<td>Company</td>
<td>8,800,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (USD)</strong></td>
<td></td>
<td></td>
<td>2,500,000</td>
<td><strong>10,428,946</strong></td>
<td>9,326,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 Funding for the Social and Environmental Remediation Fund is based upon the yearly funding amounts required in clause 15.4, to be adjusted for CPI according to clause 15.5, for each year of the Operating Phase.
15.7 Adaptive Implementation

Both the GOL and the Company acknowledge that due flexibility is needed when implementing the Resettlement Works described in this Part, and acknowledge that, upon agreement between the GOL and the Company, the budgets for those items included in this Part identified as "Fixed Scope" may be reallocated to purchase other materials or equipment as needed.
LAO PEOPLE DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

STATE PLANNING COMMITTEE

THE NT2
RESETTLEMENT POLICY

VIENTIANE, 1998
THE NT2 RESETTLEMENT POLICY

STATE PLANNING COMMITTEE AGREES

Article 1: Objectives of the Resettlement Policy

1.1 This policy outlines the basic principles and measures governing the resettlement provision of agricultural and forestry production areas and compensation to the population of the Nam Theun 2 Project zones, with the view of upgrading and ensuring sustainable livelihoods.

1.2 It provides that the population participates in the consultation, planning and design process of their new settlement and production areas.

1.3 It provides for the application of special measures as required towards ethnic minorities and vulnerable persons to take care of their needs and foster self reliance.

1.4 It provides for the construction of infrastructure in new settlements areas in accordance with the national standards for the best interests of the local population and the indigenous population in and around the resettlement areas.

1.5 The population to be resettled should materially improve its standard of living after relocating; household incomes should, on a village by village basis be above the national rural poverty level.

1.6 The policy provides for replacement land being available to all those interested; cash compensation would only be considered for those with specific plans to permanently move out of the district.

1.7 The resettlement and rehabilitation plans will be conceived and executed as specific development plans.

1.8 This policy will adhere to the (Draft) Resettlement Policy for Major Projects in Lao PDR as contained in the NT2 Resettlement Action Plan.
Article 2: Policy Areas

The areas of this policy are those where the population is directly and indirectly impacted by the Nam Theun 2 Project, such as:

2.1 Khammounane Province

- **Nakai District:** The dam and reservoir area cover the territory of 15 villages in Nakai District.
- **Gnommalath District:** The powerhouse, weir and water basin, outflow channel from the powerhouse and first portion of the high voltage transmission line.
- **Mahaxai District:** Outflow canal to the Xe Bangfai river and the middle portion of the high voltage transmission line.
- **Nongbok and Xe Bangfai Districts:** Xe Bangfai downstream.

2.2 Savannakhet Province

- **Savboury and Khamthabouly Districts:** same as Nongbok and Xe Bangfai Districts plus remaining portion of the high voltage transmission line.

2.3 Bolikhamsay Province

- **Khamkeut District:** One portion of the reservoir on the dam’s right side, the new road, and two villages: Sop Hai, Nam Nian.

The resettlement policy is directly linked to the above Project components and operation of the powerhouse and dam.

Article 3: Selection of Resettlement Areas

Four zones have been selected for resettlement planning, being:

**Zone 1:** Near Nakai town (Khammounane Province) covering an approximate area of 1,600 hectares.

**Zone 2:** On the east of Ban Don and Ban Khon Khene, Nakai District (Khammounane Province), covering an approximate area of 10,300 hectares.

**Zone 3:** On the west of Ban Nakai Tay and Ban Nakai Neua (Khammounane Province), covering an approximate area of 10,900 hectares.

**Zone 4B:**(Pha Thoung) Gnommalath District (Khammounane Province) covering an approximate area of 3,800 hectares favourable for agro-forestry and animal husbandry.

Other zones may be added as required. The zones ultimately selected by the population to be resettled are defined in the Resettlement Action Plan.

Article 4: Compensation Policy

4.1 Compensation will be provided for agricultural lands, gardens, building land, fruit trees, houses, schools, hospitals, dispensaries, temples, cemeteries, markets, buildings and any other assets and activities that will be affected.
4.2 The Project will provide housing and agricultural-forestry production land for each family currently in the reservoir area. For any family not receiving any such land or less than formerly used, the Project will ensure cash compensation at a mutually agreed value based on the local market value prevailing at the time.

4.3 Yielding fruit trees shall be compensated according to locally prevailing prices. Non-yielding small fruit trees will be compensated at their replacement value.

4.4 Schools, hospitals, dispensaries, markets, temples, clubs, cemeteries, roads and other constructions owned by the State and the village will be re-built by the Project or will be otherwise compensated at their replacement value.

4.5 The dismantling of old houses and construction cost of new replacement houses will be, jointly with the owners, determined by the Project and will be compensated. Transportation to the resettlement area (including wood prepared by the population) and labour and equipment provided by each family will be compensated. Each house may be designed by the population itself according to their preference. Moving of household goods including livestock will be arranged at no costs to the household.

4.6 Villagers resettling outside the resettlement zones (in other localities) will receive full compensation from the Project in one single payment for agricultural land, gardens, fruit trees, houses, building land and other losses and will be provided transport to their destination.

4.7 Food security will be provided to households until income targets have been met, according to the Regulations.

4.8 All persons that sustain a loss under the project will be entitled to adequate and prompt compensation to the Regulations.

4.9 Under this policy, regulations will be made that classify those who are entitled to compensation and the level of compensation entitlement. Entitled households will be registered once a decision to proceed with the Project has been made.

4.10 Those families surveyed in the Project’s Reservoir Area as of mid-1995 will be entitled to compensation, as will those who will be registered subsequently.

Article 5: Other Provisions

5.1 The resettlement transition period will be minimised and adequate social, economic and environmental support will be provided during the transition period.

5.2 Those to be resettled will, as a matter of preference, be relocated on sites situated on the Nakai Plateau and other areas as mentioned in Article 3; however those wishing to relocate to resettlement sites off the Nakai Plateau should be given that option, subject to suitable sites being available.

5.3 Villages will be resettled as villages in order to preserve social cohesion; where two or more villages are to be combined in a new location, agreement of all concerned villages will be obtained. Life in the new villages should be better than before.

5.4 New villages will be provided with appropriate community infrastructure to be specified in the Resettlement Action Plan.
5.5 Insofar as changes in household economic are proposed, the replacement opportunities will recognise the ability and interest of the persons affected, new activities will be introduced on a sound economic basis, with risks identified and understood.

5.6 All resettlement and rehabilitation costs will be borne by the Project with funds disbursed through an appropriate institutional structure.

5.7 All those affected by the Project will have the same basic rights, although entitlements may vary.

5.8 Proof of residency or traditional use from the Village administration is required to establish the right to compensation.

5.9 The allocation of house plots will recognise family composition; households with large numbers of present or future labour-force members will be considered for allocation of plots that can accommodate larger or expanding households.

5.10 The socio-cultural composition of the affected villages will be recognised in the resettlement plans and their implementation.

5.11 All affected persons will have effective access to grievance procedures that would deal with problems that may emerge at the household or village level.

5.12 The progress of Project construction will be linked to the resettlement program; reservoir impoundment will not proceed until all affected persons have been relocated in accordance with the approved Resettlement Action Plan.

5.13 Any host people affected by the resettlement program will be compensated according to the degree of the impact.

Article 6: Implementation

6.1 The Resettlement Committee for Nam Theun 2 and the Resettlement Management Unit (RMU) will be responsible to prepare the NT2 regulations and carry out the effective implementation of the Resettlement Action Plan, and for the co-ordination of the organisations involved.

6.2 The NT2 resettlement policy is to be recognised and assisted by Ministries. Committees and Rural Authorities for effective implementation.

Article 7: Validity

7.1 This policy will come into effect on the date below.

Signed: ..............................................................

Chairman, State Planning Committee

Date: February 5, 1998
**APPENDIX A.2**

**CONCESSION AGREEMENT – SCHEDULE 7 PART 2: TERMINATION OBLIGATIONS**

Resettlement Termination Obligations as defined in the Concession Agreement

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Time of Termination</th>
<th>Description of Situation at Termination</th>
<th>Obligations to be performed by the GOL to address the situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>From Financial Close to Financial Close + 1 year</td>
<td>The Pilot Village has been relocated but no other Resettlers have been relocated. Persons who have not been relocated can continue their existing livelihoods except for the Community Forest component, but also have access to the training facilities to be handed over to the District Authorities.</td>
<td>The Pilot Village must have adequate household water supply and water adequate for small scale gardens. Community infrastructure and housing must be completed in the Pilot Village. Resettlement access roads to the Pilot Village and roads to farm/house lots in that village to be completed. Livelihood activities which have commenced in the Pilot Village, shall be continued in accordance with the scope existing at the time of termination. The Ban Nakai Neua Demonstration Farm and Nursery and the Theun Duane Demonstration Farm shall be handed over to the District Authorities so that those training facilities can be maintained for the benefit of the Pilot Village and the other Resettlers (who have not relocated). The Community Forest component, including the continuation of the Forestry Association shall be maintained to pursue its original objectives. The GOL may implement any other Resettlement Works set out in Schedule 4 Part 1 and applicable to the Pilot Village at its election.</td>
</tr>
<tr>
<td>2.</td>
<td>From Financial Close + 1 year to Financial Close + 3 years</td>
<td>Resettlers will be in the process of relocation or will have already been relocated. Part 1 of Schedule 4 requires that relocation of Resettlers shall not be commenced until after Resettler housing and essential community infrastructure and services are completed (including, without limitation, housing</td>
<td>Those Resettlers who have already moved should be given the opportunity of remaining in their new villages or allowed to return to their former village sites on either a household or village basis. Adequate household water supply and water adequate for small scale gardening must be available in the new villages if they elect to stay in new villages. Consultations on the implications of</td>
</tr>
<tr>
<td>Scenario</td>
<td>Time of Termination</td>
<td>Description of Situation at Termination</td>
<td>Obligations to be performed by the GOL to address the situation</td>
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<td>---------------------------------------------------------------</td>
</tr>
</tbody>
</table>
|          |                     | and clinics and availability of water for Resettlers households and as far as possible, water for small scale gardening. | livelihood systems between PAPs and GOL should take place in order to develop a program of activities that is best suited to the current situation as at the time of termination. Such program of activities should be consistent with the activities contemplated in Schedule 4 Part 1 and developed in consultation with the Panel of Experts (as appropriate). As a minimum, the following activities should be undertaken by GOL if the village stays in the new location:  
  
  • resettlement access roads to the new villages and roads to farm/lot lots to be completed when Resettlers elect to stay in new villages;  
  
  • all community housing and infrastructure for a village must be completed if it has been commenced and Resettlers elect to stay in new villages;  
  
  • the community forestry component shall be continued in accordance with the scope contemplated in Part 1 of Schedule 4;  
  
  • other livelihood activities which have commenced in the Pilot Village and the newly established villages for Resettlers shall be continued in accordance with the current scope at the time of termination;  
  
  • the resettlement health program and the regional health program shall be continued by the District and Provincial Authorities in accordance with the scope current at the time of termination for a maximum of 18 months;  
  
  • the Ban Nakai Neua Demonstration Farm and Nursery and the Theun Duane Demonstration Farm shall be handed over to the District Authorities so that those training facilities can be maintained for the benefit of the Pilot Village and the... |
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Time of Termination</th>
<th>Description of Situation at Termination</th>
<th>Obligations to be performed by the GOL to address the situation</th>
</tr>
</thead>
</table>
| 3.       | From Financial Close + 3 years to GOL Project Completion Date | Physical relocation will have been completed for all resettlement villages on the Plateau. Essential infrastructure and services but not the irrigation scheme should be completed in the new villages. Resettlers will have also invested time and energy on the improving their farm lots. These lots will not be in full production and Resettlers will be dependent on rice supplements and income support programmes. | other Resettlers (whether or not they have been relocated); and  
  - GOL should assist Resettlers who elect to move back to their former villages in moving back to original sites, that is relocating houses and other tangible assets.  
  The GOL may implement any other Resettlement Works set out in Schedule 4 Part 1 at its election.  
  If the villagers elect not to stay in the new locations, the GOL shall develop and implement, in consultation with the Panel of Experts, appropriate livelihood development programs for the benefit of those persons consistent with Schedule 4 Part 1.  
  Resettlers should be given the opportunity of remaining in the new villages or allowed to return to original village sites on either a household or village basis. Adequate household water supply and water adequate for small-scale gardening must be made available in the new villages if they elect to stay in new villages.  
  Consultations between Resettlers and GOL on the sustainability of livelihood systems in both locations should take place in order to develop a program of activities that is best suited to the current situation as at the time of termination. Such program of activities should be consistent with the activities contemplated in Schedule 4 Part 1 and developed in consultation with the Panel of Experts (as appropriate). As a minimum, the following activities should be undertaken by GOL:  
  - resettlement access roads to the new villages, forestry management roads and roads to farm/house lots to be completed when Resettlers elect to stay in new villages;  
  - the community forestry component shall be continued in accordance with the scope contemplated in Part 1 of Schedule 4;  
  - other livelihood activities in the...
### Concession Agreement – Schedule 7 Part 2: Termination Obligations

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Time of Termination</th>
<th>Description of Situation at Termination</th>
<th>Obligations to be performed by the GOL to address the situation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pilot Village and the new villages which have commenced shall be continued in accordance with current scope at the time of termination;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the resettlement health program and the regional health program shall be continued by the District and Provincial Authorities in accordance with the current scope at the time of termination for a maximum of 18 months;</td>
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<tr>
<td></td>
<td></td>
<td>• the Ban Nakai Neua Demonstration Farm and Nursery and the Theun Duane Demonstration Farm shall be handed over to the District Authorities so that those training facilities can be maintained for the benefit of the Resettlers; and</td>
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<tr>
<td></td>
<td></td>
<td>• GOL should assist PAPs in moving back to original sites if so desired, that is relocating houses and other tangible assets.</td>
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<td></td>
<td>The GOL may implement any other Resettlement Works set out in Schedule 4 Part 1 at its election.</td>
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<tr>
<td></td>
<td></td>
<td>If the villagers elect not to stay in the new locations, the GOL shall develop and implement, in consultation with the Panel of Experts, appropriate livelihood development programs for the benefit of those persons consistent with Schedule 4 Part 1</td>
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## APPENDIX B

### WORLD BANK SAFEGUARD POLICIES – SOCIAL

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OP 4.11
August 1999

These policies were prepared for use by World Bank staff and are not necessarily a complete treatment of the subject.

Cultural Property

OP 4.11 is under preparation. Until it is issued, Bank staff are guided by the provisions of Operational Policy Note (OPN) 11.03, which is reprinted here. The technical paper referred to in the OPN is no longer available. Questions about cultural property issues may be addressed to the Bank's Cultural Property Safeguard Specialist, Ms. Arlene Fleming (ext. 88401).

WORLD BANK OPERATIONAL POLICY NOTE NO. 11.03
MANAGEMENT OF CULTURAL PROPERTY IN BANK-FINANCED PROJECTS

Introduction

1. The United Nations term "cultural property" includes sites having archeological (prehistoric), paleontological, historical, religious, and unique natural values. Cultural property, therefore, encompasses both remains left by previous human inhabitants (for example, middens, shrines, and battlegrounds) and unique natural environmental features such as canyons and waterfalls. The rapid loss of cultural property in many countries is irreversible and often unnecessary. Detailed background information on all aspects of this note are contained in the technical paper of the same title, available from the Office of Environmental and Scientific Affairs, Projects Policy Department, which is ready to provide assistance on request.

Policy Guidance

2. The World Bank's general policy regarding cultural properties is to assist in their preservation, and to seek to avoid their elimination. Specifically:

(a) The Bank normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage.

(b) The Bank will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. In some cases, the project is best relocated in order that sites and structures can be preserved, studied, and restored intact in situ. In other cases, structures can be relocated, preserved, studied, and restored on alternate sites. Often, scientific study, selective salvage, and museum preservation before destruction is all that is necessary. Most such projects should include the training and strengthening of institutions entrusted with safeguarding a nation's cultural patrimony. Such activities should be directly included in the scope of the project, rather than being postponed for some possible future action, and the costs are to be internalized in computing overall project costs.

(c) Deviations from this policy may be justified only where expected project benefits are great, and the loss of or damage to cultural property is judged by competent authorities to be unavoidable, minor, or otherwise acceptable. Specific details of the justification should be discussed in project documents.

(d) This policy pertains to any project in which the Bank is involved, irrespective of whether the Bank is itself financing the part of the project that may affect cultural property.

Procedural Guidance

3. The management of cultural property of a country is the responsibility of the government. Before proceeding with a project, however, which prima facie entails the risk of damaging cultural property (e.g., any project that includes large scale excavations, movement of earth, surficial environmental changes or demolition), Bank staff must (1) determine what is known about the cultural property aspects of the
proposed project site. The government’s attention should be drawn specifically to that aspect and appropriate agencies, NGOs or university departments should be consulted: (2) If there is any question of cultural property in the area, a brief reconnaissance survey should be undertaken in the field by a specialist. Procedures to be followed upon positive surveys are detailed in Chapter 6 of the technical paper.

September 1986

1. The World Bank includes the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA) and the International Finance Corporation (IFC).
2. A survey form is attached to the technical paper.

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Involuntary Resettlement

Note: OP and BP 4.12 together replace OD 4.30, Involuntary Resettlement. This OP and BP apply to all projects for which a Project Concept Review takes place on or after January 1, 2002. Questions may be addressed to the Director, Social Development Department (SDV).

1. Bank experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.

Policy Objectives

2. Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. For these reasons, the overall objectives of the Bank's policy on involuntary resettlement are the following:

(a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.

(b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.

(c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

Impacts Covered

3. This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by

(a) the involuntary taking of land resulting in
   (i) relocation or loss of shelter;
   (ii) loss of assets or access to assets; or
   (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or

(b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

4. This policy applies to all components of the project that result in involuntary resettlement, regardless of the source of financing. It also applies to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are (a) directly and significantly related to the Bank-assisted project, (b) necessary to
achieve its objectives as set forth in the project documents; and (c) carried out, or planned to be carried out, contemporaneously with the project.

5. Requests for guidance on the application and scope of this policy should be addressed to the Resettlement Committee (see BP 4.12, para. 7).10

**Required Measures**

6. To address the impacts covered under para. 3 (a) of this policy, the borrower prepares a resettlement plan or a resettlement policy framework (see paras. 25-30) that covers the following:

(a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
   (i) informed about their options and rights pertaining to resettlement;
   (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and
   (iii) provided prompt and effective compensation at full replacement cost\textsuperscript{11} for losses of assets\textsuperscript{12} attributable directly to the project.

(b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
   (i) provided assistance (such as moving allowances) during relocation; and
   (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.\textsuperscript{13}

(c) Where necessary to achieve the objectives of the policy, the resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are
   (i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living;\textsuperscript{14} and
   (ii) provided with development assistance in addition to compensation measures described in paragraph 6(a) (iii), such as land preparation, credit facilities, training, or job opportunities.

7. In projects involving involuntary restriction of access to legally designated parks and protected areas (see para. 3(b)), the nature of restrictions, as well as the type of measures necessary to mitigate adverse impacts, is determined with the participation of the displaced persons during the design and implementation of the project. In such cases, the borrower prepares a process framework acceptable to the Bank, describing the participatory process by which

(a) specific components of the project will be prepared and implemented;
(b) the criteria for eligibility of displaced persons will be determined;
(c) measures to assist the displaced persons in their efforts to improve their livelihoods, or at least to restore them, in real terms, while maintaining the sustainability of the park or protected area, will be identified; and
(d) potential conflicts involving displaced persons will be resolved.

The process framework also includes a description of the arrangements for implementing and monitoring the process.

8. To achieve the objectives of this policy, particular attention is paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples,\textsuperscript{15} ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.
9. Bank experience has shown that resettlement of indigenous peoples with traditional land-based modes of production is particularly complex and may have significant adverse impacts on their identity and cultural survival. For this reason, the Bank satisfies itself that the borrower has explored all viable alternative project designs to avoid physical displacement of these groups. When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies for these groups (see para. 11) that are compatible with their cultural preferences and are prepared in consultation with them (see Annex A, para. 11).

10. The implementation of resettlement activities is linked to the implementation of the investment component of the project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place. For impacts covered in para. 3(a) of this policy, these measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons. For impacts covered in para. 3(b) of this policy, the measures to assist the displaced persons are implemented in accordance with the plan of action as part of the project (see para. 30).

11. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. These strategies may include resettlement on public land (see footnote 1 above), or on private land acquired or purchased for resettlement. Whenever replacement land is offered, resettlers are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the displaced persons, the provision of land would adversely affect the sustainability of a park or protected area, or sufficient land is not available at a reasonable price, non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank.

12. Payment of cash compensation for lost assets may be appropriate where (a) livelihoods are land-based but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.

13. For impacts covered under para. 3(a) of this policy, the Bank also requires the following:

   (a) Displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement. Appropriate and accessible grievance mechanisms are established for these groups.

   (b) In new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities. Alternative or similar resources are provided to compensate for the loss of access to community resources (such as fishing areas, grazing areas, fuel, or fodder).

   (c) Patterns of community organization appropriate to the new circumstances are based on choices made by the displaced persons. To the extent possible, the existing social and cultural institutions of resettlers and any host communities are preserved and resettlers' preferences with respect to relocating in preexisting communities and groups are honored.

14. Eligibility for Benefits

   Upon identification of the need for involuntary resettlement in a project, the borrower carries out a census to identify the persons who will be affected by the project (see the Annex A, para. 6(a)), to determine who will be eligible for assistance, and to discourage inflow of people ineligible for assistance. The borrower also develops a procedure, satisfactory to the Bank, for establishing the criteria by which displaced persons will be deemed eligible for compensation and other resettlement assistance. The procedure includes
provisions for meaningful consultations with affected persons and communities, local authorities, and, as appropriate, nongovernmental organizations (NGOs), and it specifies grievance mechanisms.

15. **Criteria for Eligibility.** Displaced persons may be classified in one of the following three groups:

   (a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);
   (b) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets—provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan (see Annex A, para. 7(f)); and
   (c) those who have no recognizable legal right or claim to the land they are occupying.

16. Persons covered under para. 15(a) and (b) are provided compensation for the land they lose, and other assistance in accordance with para. 6. Persons covered under para. 15(c) are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives set out in this policy, if they occupy the project area prior to a cut-off date established by the borrower and acceptable to the Bank. Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons included in para. 15(a), (b), or (c) are provided compensation for loss of assets other than land.

17. To achieve the objectives of this policy, different planning instruments are used, depending on the type of project:

   (a) a resettlement plan or abbreviated resettlement plan is required for all operations that entail involuntary resettlement unless otherwise specified (see para. 25 and Annex A);
   (b) a resettlement policy framework is required for operations referred to in paras. 26-30 that may entail involuntary resettlement, unless otherwise specified (see Annex A); and
   (c) a process framework is prepared for projects involving restriction of access in accordance with para. 3(b) (see para. 31).

18. The borrower is responsible for preparing, implementing, and monitoring a resettlement plan, a resettlement policy framework, or a process framework (the "resettlement instruments"), as appropriate, that conform to this policy. The resettlement instrument presents a strategy for achieving the objectives of the policy and covers all aspects of the proposed resettlement. Borrower commitment to, and capacity for, undertaking successful resettlement is a key determinant of Bank involvement in a project.

19. Resettlement planning includes early screening, scoping of key issues, the choice of resettlement instrument, and the information required to prepare the resettlement component or subcomponent. The scope and level of detail of the resettlement instruments vary with the magnitude and complexity of resettlement. In preparing the resettlement component, the borrower draws on appropriate social, technical, and legal expertise and on relevant community-based organizations and NGOs. The borrower informs potentially displaced persons at an early stage about the resettlement aspects of the project and takes their views into account in project design.

20. The full costs of resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project. The costs of resettlement, like the costs of other project activities, are treated as a charge against the economic benefits of the project; and any net benefits to resettlers (as compared to the "without-project" circumstances) are added to the benefits stream of the project. Resettlement components or free-standing resettlement projects need not be economically viable on their own, but they should be cost-effective.

21. The borrower ensures that the Project Implementation Plan is fully consistent with the resettlement instrument.
22. As a condition of appraisal of projects involving resettlement, the borrower provides the Bank with the relevant draft resettlement instrument which conforms to this policy, and makes it available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to them. Once the Bank accepts this instrument as providing an adequate basis for project appraisal, the Bank makes it available to the public through its InfoShop. After the Bank has approved the final resettlement instrument, the Bank and the borrower disclose it again in the same manner.23

23. The borrower's obligations to carry out the resettlement instrument and to keep the Bank informed of implementation progress are provided for in the legal agreements for the project.

24. The borrower is responsible for adequate monitoring and evaluation of the activities set forth in the resettlement instrument. The Bank regularly supervises resettlement implementation to determine compliance with the resettlement instrument. Upon completion of the project, the borrower undertakes an assessment to determine whether the objectives of the resettlement instrument have been achieved. The assessment takes into account the baseline conditions and the results of resettlement monitoring. If the assessment reveals that these objectives may not be realized, the borrower should propose follow-up measures that may serve as the basis for continued Bank supervision, as the Bank deems appropriate (see also BP 4.12, para. 16).

Resettlement Instruments

Resettlement Plan

25. A draft resettlement plan that conforms to this policy is a condition of appraisal (see Annex A, paras. 2-21) for projects referred to in para. 17(a) above. However, where impacts on the entire displaced population are minor, or fewer than 200 people are displaced, an abbreviated resettlement plan may be agreed with the borrower (see Annex A, para. 22). The information disclosure procedures set forth in para. 22 apply.

Resettlement Policy Framework

26. For sector investment operations that may involve involuntary resettlement, the Bank requires that the project implementing agency screen subprojects to be financed by the Bank to ensure their consistency with this OP. For these operations, the borrower submits, prior to appraisal, a resettlement policy framework that conforms to this policy (see Annex A, paras. 23-25). The framework also estimates, to the extent feasible, the total population to be displaced and the overall resettlement costs.

27. For financial intermediary operations that may involve involuntary resettlement, the Bank requires that the Financial Intermediary (FI) screen subprojects to be financed by the Bank to ensure their consistency with this OP. For these operations, the Bank requires that before appraisal the borrower or the FI submit to the Bank a resettlement policy framework conforming to this policy (see Annex A, paras. 23-25). In addition, the framework includes an assessment of the institutional capacity and procedures of each of the FIs that will be responsible for subproject financing. When, in the assessment of the Bank, no resettlement is envisaged in the subprojects to be financed by the FI, a resettlement policy framework is not required. Instead, the legal agreements specify the obligation of the FIs to obtain from the potential subborrowers a resettlement plan consistent with this policy if a subproject gives rise to resettlement. For all subprojects involving resettlement, the resettlement plan is provided to the Bank for approval before the subproject is accepted for Bank financing.

28. For other Bank-assisted project with multiple subprojects that may involve involuntary resettlement, the Bank requires that a draft resettlement plan conforming to this policy be submitted to the Bank before appraisal of the project unless, because of the nature and design of the project or of a specific subproject or subprojects (a) the zone of impact of subprojects cannot be determined, or (b) the zone of impact is known but precise sitting alignments cannot be determined. In such cases, the borrower submits a resettlement policy framework consistent with this policy prior to appraisal (see Annex A, paras. 23-25). For other subprojects that do not fall within the above criteria, a resettlement plan conforming to this policy is required prior to appraisal.
29. For each subproject included in a project described in para. 26, 27, or 28 that may involve resettlement, the Bank requires that a satisfactory resettlement plan or an abbreviated resettlement plan that is consistent with the provisions of the policy framework be submitted to the Bank for approval before the subproject is accepted for Bank financing.

30. For projects described in paras. 26-28 above, the Bank may agree, in writing, that subproject resettlement plans may be approved by the project implementing agency or a responsible government agency or financial intermediary without prior Bank review, if that agency has demonstrated adequate institutional capacity to review resettlement plans and ensure their consistency with this policy. Any such delegation, and appropriate remedies for the entity's approval of resettlement plans found not to be in compliance with Bank policy, are provided for in the legal agreements for the project. In all such cases, implementation of the resettlement plans is subject to ex post review by the Bank.

Process Framework

31. For projects involving restriction of access in accordance with para. 3(b) above, the borrower provides the Bank with a draft process framework that conforms to the relevant provisions of this policy as a condition of appraisal. In addition, during project implementation and before enforcing of the restriction, the borrower prepares a plan of action, acceptable to the Bank, describing the specific measures to be undertaken to assist the displaced persons and the arrangements for their implementation. The plan of action could take the form of a natural resources management plan prepared for the project.

Assistance to the Borrower

32. In furtherance of the objectives of this policy, the Bank may at a borrower's request support the borrower and other concerned entities by providing

(a) assistance to assess and strengthen resettlement policies, strategies, legal frameworks, and specific plans at a country, regional, or sectoral level;
(b) financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations;
(c) financing of technical assistance for developing resettlement policies, strategies, and specific plans, and for implementation, monitoring, and evaluation of resettlement activities; and
(d) financing of the investment costs of resettlement.

33. The Bank may finance either a component of the main investment causing displacement and requiring resettlement, or a free-standing resettlement project with appropriate cross-conditionalities, processed and implemented in parallel with the investment that causes the displacement. The Bank may finance resettlement even though it is not financing the main investment that makes resettlement necessary.

34. The Bank does not disburse against cash compensation and other resettlement assistance paid in cash, or against the cost of land (including compensation for land acquisition). However, it may finance the cost of land improvement associated with resettlement activities.

1. "Bank" includes IDA; "loans" includes credits, guarantees, Project Preparation Facility (PPF) advances and grants; and "projects" includes projects under (a) adaptable program lending; (b) learning and innovation loans; (c) PPFs and Institutional Development Funds (IDFs), if they include investment activities; (d) grants under the Global Environment Facility and Montreal Protocol, for which the Bank is the implementing/executing agency; and (e) grants or loans provided by other donors that are administered by the Bank. The term "project" does not include programs under adjustment operations. "Borrower" also includes, wherever the context requires, the guarantor or the project implementing agency.

2. In devising approaches to resettlement in Bank-assisted projects, other Bank policies should be taken into account, as relevant. These policies include OP 4.01 Environmental Assessment, OP 4.04 Natural Habitats, OP 4.11 Safeguarding Cultural Property in Bank-Assisted Projects, and OD 4.20 Indigenous Peoples.
3. The term "displaced persons" refers to persons who are affected in any of the ways described in para. 3 of this OP.

4. Displaced persons under para. 3(b) should be assisted in their efforts to improve or restore their livelihoods in a manner that maintains the sustainability of the parks and protected areas.

5. Where there are adverse indirect social or economic impacts, it is good practice for the borrower to undertake a social assessment and implement measures to minimize and mitigate adverse economic and social impacts, particularly upon poor and vulnerable groups. Other environmental, social, and economic impacts that do not result from land taking may be identified and addressed through environmental assessments and other project reports and instruments.

6. This policy does not apply to restrictions of access to natural resources under community-based projects, i.e. where the community using the resources decides to restrict access to these resources, provided that an assessment satisfactory to the Bank establishes that the community decision-making process is adequate, and that it provides for identification of appropriate measures to mitigate adverse impacts, if any, on the vulnerable members of the community. This policy also does not cover refugees from natural disasters, war, or civil strife (see OP/BP 8.50, Emergency Recovery Assistance).

7. For purposes of this policy, "involuntary" means actions that may be taken without the displaced person's informed consent or power of choice.

8. "Land" includes anything growing on or permanently affixed to land, such as buildings and crops. This policy does not apply to regulations of natural resources on a national or regional level to promote their sustainability, such as watershed management, groundwater management, fisheries management, etc. The policy also does not apply to disputes between private parties in land titling projects, although it is good practice for the borrower to undertake a social assessment and implement measures to minimize and mitigate adverse social impacts, especially those affecting poor and vulnerable groups.

9. For the purposes of this policy, involuntary restriction of access covers restrictions on the use of resources imposed on people living outside the park or protected area, or on those who continue living inside the park or protected area during and after project implementation. In cases where new parks and protected areas are created as part of the project, persons who lose shelter, land, or other assets are covered under para. 3(a). Persons who lose shelter in existing parks and protected areas are also covered under para. 3(a).

10. The Resettlement Sourcebook (forthcoming) provides good practice guidance to staff on the policy.

11. "Replacement cost" is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account (for a detailed definition of replacement cost, see Annex A, footnote 1). For losses that cannot easily be valued or compensated for in monetary terms (e.g., access to public services, customers, and suppliers; or to fishing, grazing, or forest areas), attempts are made to establish access to equivalent and culturally acceptable resources and earning opportunities. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard. Such additional assistance is distinct from resettlement assistance to be provided under other clauses of para. 6.

12. If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken.

13. The alternative assets are provided with adequate tenure arrangements. The cost of alternative residential housing, housing sites, business premises, and agricultural sites to be provided can be set off against all or part of the compensation payable for the corresponding asset lost.

14. Such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements.
15. See **OD 4.20**, *Indigenous Peoples*.

16. See **OP 4.04**, *Natural Habitats*.

17. As a general principle, this applies if the land taken constitutes less than 20% of the total productive area.

18. Paras. 13-15 do not apply to impacts covered under para. 3(b) of this policy. The eligibility criteria for displaced persons under 3(b) are covered under the process framework (see paras. 7 and 30).

19. Such claims could be derived from adverse possession, from continued possession of public lands without government action for eviction (that is, with the implicit leave of the government), or from customary and traditional law and usage, and so on.

20. Resettlement assistance may consist of land, other assets, cash, employment, and so on, as appropriate.

21. Normally, this cut-off date is the date the census begins. The cut-off date could also be the date the project area was delineated, prior to the census, provided that there has been an effective public dissemination of information on the area delineated, and systematic and continuous dissemination subsequent to the delineation to prevent further population influx.

22. For projects that are highly risky or contentious, or that involve significant and complex resettlement activities, the borrower should normally engage an advisory panel of independent, internationally recognized resettlement specialists to advise on all aspects of the project relevant to the resettlement activities. The size, role, and frequency of meeting depend on the complexity of the resettlement. If independent technical advisory panels are established under **OP 4.01**, *Environmental Assessment*, the resettlement panel may form part of the environmental panel of experts.

   See **BP 17.50**, *Disclosure of Operational Information* (forthcoming) for detailed disclosure procedures.

24. An exception to this requirement may be made in highly unusual circumstances (such as emergency recovery operations) with the approval of Bank Management (see **BP 4.12**, para. 8). In such cases, the Management's approval stipulates a timetable and budget for developing the resettlement plan.

25. Impacts are considered "minor" if the affected people are not physically displaced and less than 10% of their productive assets are lost.

26. For purpose of this paragraph, the term "subprojects" includes components and subcomponents.
Involuntary Resettlement Instruments

1. This annex describes the elements of a resettlement plan, an abbreviated resettlement plan, a resettlement policy framework, and a resettlement process framework, as discussed in OP 4.12, paras. 17-31.

Resettlement Plan

2. The scope and level of detail of the resettlement plan vary with the magnitude and complexity of resettlement. The plan is based on up-to-date and reliable information about (a) the proposed resettlement and its impacts on the displaced persons and other adversely affected groups, and (b) the legal issues involved in resettlement. The resettlement plan covers the elements below, as relevant. When any element is not relevant to project circumstances, it should be noted in the resettlement plan.

3. **Description of the project.** General description of the project and identification of the project area.

4. **Potential impacts.** Identification of

   (a) the project component or activities that give rise to resettlement;
   
   (b) the zone of impact of such component or activities;
   
   (c) the alternatives considered to avoid or minimize resettlement; and
   
   (d) the mechanisms established to minimize resettlement, to the extent possible, during project implementation.

5. **Objectives.** The main objectives of the resettlement program.

6. **Socioeconomic studies.** The findings of socioeconomic studies to be conducted in the early stages of project preparation and with the involvement of potentially displaced people, including

   (a) the results of a census survey covering
   
      (i) current occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people from eligibility for compensation and resettlement assistance;
   
      (ii) standard characteristics of displaced households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the displaced population;
   
      (iii) the magnitude of the expected loss—total or partial—of assets, and the extent of displacement, physical or economic;
   
      (iv) information on vulnerable groups or persons as provided for in OP 4.12, para. 8, for whom special provisions may have to be made; and
   
      (v) provisions to update information on the displaced people's livelihoods and standards of living at regular intervals so that the latest information is available at the time of their displacement.

   (b) Other studies describing the following
   
      (i) land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based
usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area;

(ii) the patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project;

(iii) public infrastructure and social services that will be affected; and

(iv) social and cultural characteristics of displaced communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental organizations (NGOs)) that may be relevant to the consultation strategy and to designing and implementing the resettlement activities.

7. **Legal framework.** The findings of an analysis of the legal framework, covering

(a) the scope of the power of eminent domain and the nature of compensation associated with it, in terms of both the valuation methodology and the timing of payment;

(b) the applicable legal and administrative procedures, including a description of the remedies available to displaced persons in the judicial process and the normal timeframe for such procedures, and any available alternative dispute resolution mechanisms that may be relevant to resettlement under the project;

(c) relevant law (including customary and traditional law) governing land tenure, valuation of assets and losses, compensation, and natural resource usage rights; customary personal law related to displacement; and environmental laws and social welfare legislation;

(d) laws and regulations relating to the agencies responsible for implementing resettlement activities;

(e) gaps, if any, between local laws covering eminent domain and resettlement and the Bank’s resettlement policy, and the mechanisms to bridge such gaps; and

(f) any legal steps necessary to ensure the effective implementation of resettlement activities under the project, including, as appropriate, a process for recognizing claims to legal rights to land—including claims that derive from customary law and traditional usage (see OP 4.12, para. 15 b).

8. **Institutional Framework.** The findings of an analysis of the institutional framework covering

(a) the identification of agencies responsible for resettlement activities and NGOs that may have a role in project implementation;

(b) an assessment of the institutional capacity of such agencies and NGOs; and

(c) any steps that are proposed to enhance the institutional capacity of agencies and NGOs responsible for resettlement implementation.

9. **Eligibility.** Definition of displaced persons and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cut-off dates.

10. **Valuation of and compensation for losses.** The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of compensation under local law and such supplementary measures as are necessary to achieve replacement cost for lost assets.

11. **Resettlement measures.** A description of the packages of compensation and other resettlement measures that will assist each category of eligible displaced persons to achieve the objectives of the policy (see OP 4.12, para. 6). In addition to being technically and economically feasible, the resettlement packages should be compatible with the cultural preferences of the displaced persons, and prepared in consultation with them.

12. **Site selection, site preparation, and relocation.** Alternative relocation sites considered and explanation of those selected, covering
Appendix B: World Bank Safeguard Policies - Social

(a) institutional and technical arrangements for identifying and preparing relocation sites, whether rural or urban, for which a combination of productive potential, locational advantages, and other factors is at least comparable to the advantages of the old sites, with an estimate of the time needed to acquire and transfer land and ancillary resources;

(b) any measures necessary to prevent land speculation or influx of ineligible persons at the selected sites;

(c) procedures for physical relocation under the project, including timetables for site preparation and transfer; and

(d) legal arrangements for regularizing tenure and transferring titles to resettlers.

13. Housing, infrastructure, and social services. Plans to provide (or to finance resettlers' provision of) housing, infrastructure (e.g., water supply, feeder roads), and social services (e.g., schools, health services); plans to ensure comparable services to host populations; any necessary site development, engineering, and architectural designs for these facilities.

14. Environmental protection and management. A description of the boundaries of the relocation area; and an assessment of the environmental impacts of the proposed resettlement and measures to mitigate and manage these impacts (coordinated as appropriate with the environmental assessment of the main investment requiring the resettlement).

15. Community participation. Involvement of resettlers and host communities, including

(a) a description of the strategy for consultation with and participation of resettlers and hosts in the design and implementation of the resettlement activities;

(b) a summary of the views expressed and how these views were taken into account in preparing the resettlement plan;

(c) a review of the resettlement alternatives presented and the choices made by displaced persons regarding options available to them, including choices related to forms of compensation and resettlement assistance, to relocating as individuals families or as parts of preexisting communities or kinship groups, to sustaining existing patterns of group organization, and to retaining access to cultural property (e.g. places of worship, pilgrimage centers, cemeteries); and

(d) institutionalized arrangements by which displaced people can communicate their concerns to project authorities throughout planning and implementation, and measures to ensure that such vulnerable groups as indigenous people, ethnic minorities, the landless, and women are adequately represented.

16. Integration with host populations. Measures to mitigate the impact of resettlement on any host communities, including

(a) consultations with host communities and local governments;

(b) arrangements for prompt tendering of any payment due the hosts for land or other assets provided to resettlers;

(c) arrangements for addressing any conflict that may arise between resettlers and host communities; and

(d) any measures necessary to augment services (e.g., education, water, health, and production services) in host communities to make them at least comparable to services available to resettlers.

17. Grievance procedures. Affordable and accessible procedures for third-party settlement of disputes arising
from resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms.

18. **Organizational responsibilities.** The organizational framework for implementing resettlement, including identification of agencies responsible for delivery of resettlement measures and provision of services; arrangements to ensure appropriate coordination between agencies and jurisdictions involved in implementation; and any measures (including technical assistance) needed to strengthen the implementing agencies’ capacity to design and carry out resettlement activities; provisions for the transfer to local authorities or resettlers themselves of responsibility for managing facilities and services provided under the project and for transferring other such responsibilities from the resettlement implementing agencies, when appropriate.

19. **Implementation schedule.** An implementation schedule covering all resettlement activities from preparation through implementation, including target dates for the achievement of expected benefits to resettlers and hosts and terminating the various forms of assistance. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.

20. **Costs and budget.** Tables showing itemized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies.

21. **Monitoring and evaluation.** Arrangements for monitoring of resettlement activities by the implementing agency, supplemented by independent monitors as considered appropriate by the Bank, to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons in the monitoring process; evaluation of the impact of resettlement for a reasonable period after all resettlement and related development activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.

**Abbreviated Resettlement Plan**

22. An abbreviated plan covers the following minimum elements:

   (a) a census survey of displaced persons and valuation of assets;
   (b) description of compensation and other resettlement assistance to be provided;
   (c) consultations with displaced people about acceptable alternatives;
   (d) institutional responsibility for implementation and procedures for grievance redress;
   (e) arrangements for monitoring and implementation; and
   (f) a timetable and budget.

**Resettlement Policy Framework**

23. The purpose of the policy framework is to clarify resettlement principles, organizational arrangements, and design criteria to be applied to subprojects to be prepared during project implementation (see OP 4.12, paras. 26-28). Subproject resettlement plans consistent with the policy framework subsequently are submitted to the Bank for approval after specific planning information becomes available (see OP 4.12, para. 29).

24. The resettlement policy framework covers the following elements, consistent with the provisions described in OP 4.12, paras. 2 and 4:

   (a) a brief description of the project and components for which land acquisition and resettlement are required, and an explanation of why a resettlement plan as described in paras. 2-21 or an abbreviated plan as described in para. 22 cannot be prepared by project appraisal;
   (b) principles and objectives governing resettlement preparation and implementation;
(c) a description of the process for preparing and approving resettlement plans;

(d) estimated population displacement and likely categories of displaced persons, to the extent feasible;

(e) eligibility criteria for defining various categories of displaced persons;

(f) a legal framework reviewing the fit between borrower laws and regulations and Bank policy requirements and measures proposed to bridge any gaps between them;

(g) methods of valuing affected assets;

(h) organizational procedures for delivery of entitlements, including, for projects involving private sector intermediaries, the responsibilities of the financial intermediary, the government, and the private developer;

(i) a description of the implementation process, linking resettlement implementation to civil works;

(j) a description of grievance redress mechanisms;

(k) a description of the arrangements for funding resettlement, including the preparation and review of cost estimates, the flow of funds, and contingency arrangements;

(l) a description of mechanisms for consultations with, and participation of, displaced persons in planning, implementation, and monitoring; and

(m) arrangements for monitoring by the implementing agency and, if required, by independent monitors.

25. When a resettlement policy framework is the only document that needs to be submitted as a condition of the loan, the resettlement plan to be submitted as a condition of subproject financing need not include the policy principles, entitlements, and eligibility criteria, organizational arrangements, arrangements for monitoring and evaluation, the framework for participation, and mechanisms for grievance redress set forth in the resettlement policy framework. The subproject-specific resettlement plan needs to include baseline census and socioeconomic survey information; specific compensation rates and standards; policy entitlements related to any additional impacts identified through the census or survey; description of resettlement sites and programs for improvement or restoration of livelihoods and standards of living; implementation schedule for resettlement activities; and detailed cost estimate.

Process Framework

26. A process framework is prepared when Bank-supported projects may cause restrictions in access to natural resources in legally designated parks and protected areas. The purpose of the process framework is to establish a process by which members of potentially affected communities participate in design of project components, determination of measures necessary to achieve resettlement policy objectives, and implementation and monitoring of relevant project activities (see OP 4.12, paras. 7 and 31).

27. Specifically, the process framework describes participatory processes by which the following activities will be accomplished

(a) Project components will be prepared and implemented. The document should briefly describe the project and components or activities that may involve new or more stringent restrictions on natural resource use. It should also describe the process by which potentially displaced persons participate in project design.

(b) Criteria for eligibility of affected persons will be determined. The document should establish that potentially affected communities will be involved in identifying any adverse impacts, assessing of the significance of impacts, and establishing of the criteria for eligibility for any mitigating or compensating measures necessary.
(c) Measures to assist affected persons in their efforts to improve their livelihoods or restore them, in real terms, to pre-displacement levels, while maintaining the sustainability of the park or protected area will be identified. The document should describe methods and procedures by which communities will identify and choose potential mitigating or compensating measures to be provided to those adversely affected, and procedures by which adversely affected community members will decide among the options available to them.

(d) Potential conflicts or grievances within or between affected communities will be resolved. The document should describe the process for resolving disputes relating to resource use restrictions that may arise between or among affected communities, and grievances that may arise from members of communities who are dissatisfied with the eligibility criteria, community planning measures, or actual implementation.

Additionally, the process framework should describe arrangements relating to the following

(e) Administrative and legal procedures. The document should review agreements reached regarding the process approach with relevant administrative jurisdictions and line ministries (including clear delineation for administrative and financial responsibilities under the project).

(f) Monitoring arrangements. The document should review arrangements for participatory monitoring of project activities as they relate to (beneficial and adverse) impacts on persons within the project impact area, and for monitoring the effectiveness of measures taken to improve (or at minimum restore) incomes and living standards.

1. With regard to land and structures, "replacement cost" is defined as follows: For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes. For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes. For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors’ fees, plus the cost of any registration and transfer taxes. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the replacement cost standard. Such additional assistance is distinct from resettlement measures to be provided under other clauses in OP 4.12, para. 6.

2. Provision of health care services, particularly for pregnant women, infants, and the elderly, may be important during and after relocation to prevent increases in morbidity and mortality due to malnutrition, the psychological stress of being uprooted, and the increased risk of disease.

3. Negative impacts that should be anticipated and mitigated include, for rural resettlement, deforestation, overgrazing, soil erosion, sanitation, and pollution; for urban resettlement, projects should address such density-related issues as transportation capacity and access to potable water, sanitation systems, and health facilities.

4. Experience has shown that local NGOs often provide valuable assistance and ensure viable community participation.

5. OPN 11.03, Management of Cultural Property in Bank-Financed Projects.

6. In case some of the displaced persons lose more than 10% of their productive assets or require physical relocation, the plan also covers a socioeconomic survey and income restoration measures.
Appendix B: World Bank Safeguard Policies - Social

OD 4.20
September 1991

This directive was prepared for the guidance of staff of the World Bank and is not necessarily a complete treatment of the subjects covered.

Indigenous Peoples

Introduction

1. This directive describes Bank policies and processing procedures for projects that affect indigenous peoples. It sets out basic definitions, policy objectives, guidelines for the design and implementation of project provisions or components for indigenous peoples, and processing and documentation requirements.

2. The directive provides policy guidance to (a) ensure that indigenous people benefit from development projects, and (b) avoid or mitigate potentially adverse effects on indigenous people caused by Bank-assisted activities. Special action is required where Bank investments affect indigenous peoples, tribes, ethnic minorities, or other groups whose social and economic status restricts their capacity to assert their interests and rights in land and other productive resources.

Definitions

3. The terms "indigenous peoples," "indigenous ethnic minorities," "tribal groups," and "scheduled tribes" describe social groups with a social and cultural identity distinct from the dominant society that makes them vulnerable to being disadvantaged in the development process. For the purposes of this directive, "indigenous peoples" is the term that will be used to refer to these groups.

4. Within their national constitutions, statutes, and relevant legislation, many of the Bank's borrower countries include specific definitional clauses and legal frameworks that provide a preliminary basis for identifying indigenous peoples.

5. Because of the varied and changing contexts in which indigenous peoples are found, no single definition can capture their diversity. Indigenous people are commonly among the poorest segments of a population. They engage in economic activities that range from shifting agriculture in or near forests to wage labor or even small-scale market-oriented activities. Indigenous peoples can be identified in particular geographical areas by the presence in varying degrees of the following characteristics:

   (a) a close attachment to ancestral territories and to the natural resources in these areas;
   (b) self-identification and identification by others as members of a distinct cultural group;
   (c) an indigenous language, often different from the national language;
   (d) presence of customary social and political institutions; and
   (e) primarily subsistence-oriented production.

Task managers (TMs) must exercise judgment in determining the populations to which this directive applies and should make use of specialized anthropological and sociological experts throughout the project cycle.

Objective and Policy

6. The Bank's broad objective towards indigenous people, as for all the people in its member countries, is to ensure that the development process fosters full respect for their dignity, human rights, and cultural uniqueness. More specifically, the objective at the center of this directive is to ensure that indigenous peoples do not suffer adverse effects during the development process, particularly from Bank-financed projects, and that they receive culturally compatible social and economic benefits.

7. How to approach indigenous peoples affected by development projects is a controversial issue. Debate is often phrased as a choice between two opposed positions. One pole is to insulate indigenous populations whose cultural and economic practices make it difficult for them to deal with powerful outside groups. The
advantages of this approach are the special protections that are provided and the preservation of cultural distinctiveness; the costs are the benefits foregone from development programs. The other pole argues that indigenous people must be acculturated to dominant society values and economic activities so that they can participate in national development. Here the benefits can include improved social and economic opportunities, but the cost is often the gradual loss of cultural differences.

8. The Bank's policy is that the strategy for addressing the issues pertaining to indigenous peoples must be based on the informed participation of the indigenous people themselves. Thus, identifying local preferences through direct consultation, incorporation of indigenous knowledge into project approaches, and appropriate early use of experienced specialists are core activities for any project that affects indigenous peoples and their rights to natural and economic resources.

9. Cases will occur, especially when dealing with the most isolated groups, where adverse impacts are unavoidable and adequate mitigation plans have not been developed. In such situations, the Bank will not appraise projects until suitable plans are developed by the borrower and reviewed by the Bank. In other cases, indigenous people may wish to be and can be incorporated into the development process. In sum, a full range of positive actions by the borrower must ensure that indigenous people benefit from development investments.

**Bank Role**

10. The Bank addresses issues on indigenous peoples through (a) country economic and sector work, (b) technical assistance, and (c) investment project components or provisions. Issues concerning indigenous peoples can arise in a variety of sectors that concern the Bank; those involving, for example, agriculture, road construction, forestry, hydropower, mining, tourism, education, and the environment should be carefully screened.

2. Issues related to indigenous peoples are commonly identified through the environmental assessment or social impact assessment processes, and appropriate measures should be taken under environmental mitigation actions (see OD 4.01, Environmental Assessment).

11. Country Economic and Sector Work. Country departments should maintain information on trends in government policies and institutions that deal with indigenous peoples. Issues concerning indigenous peoples should be addressed explicitly in sector and subsector work and brought into the Bank-country dialogue. National development policy frameworks and institutions for indigenous peoples often need to be strengthened in order to create a stronger basis for designing and processing projects with components dealing with indigenous peoples.

12. Technical Assistance. Technical assistance to develop the borrower's abilities to address issues on indigenous peoples can be provided by the Bank. Technical assistance is normally given within the context of project preparation, but technical assistance may also be needed to strengthen the relevant government institutions or to support development initiatives taken by indigenous people themselves.

13. Investment Projects. For an investment project that affects indigenous peoples, the borrower should prepare an indigenous peoples development plan that is consistent with the Bank's policy. Any project that affects indigenous peoples is expected to include components or provisions that incorporate such a plan. When the bulk of the direct project beneficiaries are indigenous people, the Bank's concerns would be addressed by the project itself and the provisions of this OD would thus apply to the project in its entirety.

**Indigenous Peoples Development Plan**

**Prerequisites**

14. Prerequisites of a successful development plan for indigenous peoples are as follows:

(a) The key step in project design is the preparation of a culturally appropriate development plan based on full consideration of the options preferred by the indigenous people affected by the project.
(b) Studies should make all efforts to anticipate adverse trends likely to be induced by the project and develop the means to avoid or mitigate harm.

(c) The institutions responsible for government interaction with indigenous peoples should possess the social, technical, and legal skills needed for carrying out the proposed development activities. Implementation arrangements should be kept simple. They should normally involve appropriate existing institutions, local organizations, and nongovernmental organizations (NGOs) with expertise in matters relating to indigenous peoples.

(d) Local patterns of social organization, religious beliefs, and resource use should be taken into account in the plan's design.

(e) Development activities should support production systems that are well adapted to the needs and environment of indigenous peoples, and should help production systems under stress to attain sustainable levels.

(f) The plan should avoid creating or aggravating the dependency of indigenous people on project entities. Planning should encourage early handover of project management to local people. As needed, the plan should include general education and training in management skills for indigenous people from the onset of the project.

(g) Successful planning for indigenous peoples frequently requires long lead times, as well as arrangements for extended follow-up. Remote or neglected areas where little previous experience is available often require additional research and pilot programs to fine-tune development proposals.

(h) Where effective programs are already functioning, Bank support can take the form of incremental funding to strengthen them rather than the development of entirely new programs.

Contents

15. The development plan should be prepared in tandem with the preparation of the main investment. In many cases, proper protection of the rights of indigenous people will require the implementation of special project components that may lie outside the primary project's objectives. These components can include activities related to health and nutrition, productive infrastructure, linguistic and cultural preservation, entitlement to natural resources, and education. The project component for indigenous peoples development should include the following elements, as needed:

(a) Legal Framework. The plan should contain an assessment of (i) the legal status of the groups covered by this OD, as reflected in the country's constitution, legislation, and subsidiary legislation (regulations, administrative orders, etc.); and (ii) the ability of such groups to obtain access to and effectively use the legal system to defend their rights. Particular attention should be given to the rights of indigenous peoples to use and develop the lands that they occupy, to be protected against illegal intruders, and to have access to natural resources (such as forests, wildlife, and water) vital to their subsistence and reproduction.

(b) Baseline Data. Baseline data should include (i) accurate, up-to-date maps and aerial photographs of the area of project influence and the areas inhabited by indigenous peoples; (ii) analysis of the social structure and income sources of the population; (iii) inventories of the resources that indigenous people use and technical data on their production systems; and (iv) the relationship of indigenous peoples to other local and national groups. It is particularly important that baseline studies capture the full range of production and marketing activities in which indigenous people are engaged. Site visits by qualified social and technical experts should verify and update secondary sources.

(c) Land Tenure. When local legislation needs strengthening, the Bank should offer to advise and assist the borrower in establishing legal recognition of the customary or traditional land tenure systems of indigenous peoples. Where the traditional lands of indigenous peoples have been brought
by law into the domain of the state and where it is inappropriate to convert traditional rights into those of legal ownership, alternative arrangements should be implemented to grant long-term, renewable rights of custodianship and use to indigenous peoples. These steps should be taken before the initiation of other planning steps that may be contingent on recognized land titles.

(d) Strategy for Local Participation. Mechanisms should be devised and maintained for participation by indigenous people in decision making throughout project planning, implementation, and evaluation. Many of the larger groups of indigenous people have their own representative organizations that provide effective channels for communicating local preferences. Traditional leaders occupy pivotal positions for mobilizing people and should be brought into the planning process, with due concern for ensuring genuine representation of the indigenous population. No foolproof methods exist, however, to guarantee full local-level participation. Sociological and technical advice provided through the Regional Environment Divisions (REDs) is often needed to develop mechanisms appropriate for the project area.

(e) Technical Identification of Development or Mitigation Activities. Technical proposals should proceed from on-site research by qualified professionals acceptable to the Bank. Detailed descriptions should be prepared and appraised for such proposed services as education, training, health, credit, and legal assistance. Technical descriptions should be included for the planned investments in productive infrastructure. Plans that draw upon indigenous knowledge are often more successful than those introducing entirely new principles and institutions. For example, the potential contribution of traditional health providers should be considered in planning delivery systems for health care.

(f) Institutional Capacity. The government institutions assigned responsibility for indigenous peoples are often weak. Assessing the track record, capabilities, and needs of those institutions is a fundamental requirement. Organizational issues that need to be addressed through Bank assistance are the (i) availability of funds for investments and field operations; (ii) adequacy of experienced professional staff; (iii) ability of indigenous peoples' own organizations, local administration authorities, and local NGOs to interact with specialized government institutions; (iv) ability of the executing agency to mobilize other agencies involved in the plan's implementation; and (v) adequacy of field presence.

(g) Implementation Schedule. Components should include an implementation schedule with benchmarks by which progress can be measured at appropriate intervals. Pilot programs are often needed to provide planning information for phasing the project component for indigenous peoples with the main investment. The plan should pursue the long-term sustainability of project activities subsequent to completion of disbursement.

(h) Monitoring and Evaluation. Independent monitoring capacities are usually needed when the institutions responsible for indigenous populations have weak management histories. Monitoring by representatives of indigenous peoples' own organizations can be an efficient way for the project management to absorb the perspectives of indigenous beneficiaries and is encouraged by the Bank. Monitoring units should be staffed by experienced social science professionals, and reporting formats and schedules appropriate to the project's needs should be established. Monitoring and evaluation reports should be reviewed jointly by the senior management of the implementing agency and by the Bank. The evaluation reports should be made available to the public.

(i) Cost Estimates and Financing Plan. The plan should include detailed cost estimates for planned activities and investments. The estimates should be broken down into unit costs by project year and linked to a financing plan. Such programs as revolving credit funds that provide indigenous people with investment pools should indicate their accounting procedures and mechanisms for financial transfer and replenishment. It is usually helpful to have as high a share as possible of direct financial participation by the Bank in project components dealing with indigenous peoples.
Project Processing and Documentation

Identification

16. During project identification, the borrower should be informed of the Bank's policy for indigenous peoples. The approximate number of potentially affected people and their location should be determined and shown on maps of the project area. The legal status of any affected groups should also be discussed. TMs should ascertain the relevant government agencies, and their policies, procedures, programs, and plans for indigenous peoples affected by the proposed project (see paras. 11 and 15(a)). TMs should also initiate anthropological studies necessary to identify local needs and preferences (see para. 15(b)). TMs, in consultation with the REDs, should signal indigenous peoples issues and the overall project strategy in the Initial Executive Project Summary (IEPS).

Preparation

17. If it is agreed in the IEPS meeting that special action is needed, the indigenous peoples development plan or project component should be developed during project preparation. As necessary, the Bank should assist the borrower in preparing terms of reference and should provide specialized technical assistance (see para. 12). Early involvement of anthropologists and local NGOs with expertise in matters related to indigenous peoples is a useful way to identify mechanisms for effective participation and local development opportunities. In a project that involves the land rights of indigenous peoples, the Bank should work with the borrower to clarify the steps needed for putting land tenure on a regular footing as early as possible, since land disputes frequently lead to delays in executing measures that are contingent on proper land titles (see para. 15(c)).

Appraisal

18. The plan for the development component for indigenous peoples should be submitted to the Bank along with the project's overall feasibility report, prior to project appraisal. Appraisal should assess the adequacy of the plan, the suitability of policies and legal frameworks, the capabilities of the agencies charged with implementing the plan, and the adequacy of the allocated technical, financial, and social resources. Appraisal teams should be satisfied that indigenous people have participated meaningfully in the development of the plan as described in para. 14(a) (also see para. 15(d)). It is particularly important to appraise proposals for regularizing land access and use.

Implementation and Supervision

19. Supervision planning should make provisions for including the appropriate anthropological, legal, and technical skills in Bank supervision missions during project implementation (see paras. 15(g) and (h), and OP / BP 13.05, Project Supervision). Site visits by TMs and specialists are essential. Midterm and final evaluations should assess progress and recommend corrective actions when necessary.

Documentation

20. The borrower's commitments for implementing the indigenous peoples development plan should be reflected in the loan documents; legal provisions should provide Bank staff with clear benchmarks that can be monitored during supervision. The Staff Appraisal Report and the Memorandum and Recommendation of the President should summarize the plan or project provisions.

1. "Bank" includes IDA, and "loans" include credits.

2. Displacement of indigenous people can be particularly damaging, and special efforts should be made to avoid it. See OD 4.30, Involuntary Resettlement, for additional policy guidance on resettlement issues involving indigenous people.
3. Regionally specific technical guidelines for preparing indigenous peoples components, and case studies of best practices, are available from the Regional environment divisions (REDs).


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ADB

Policy on Indigenous Peoples

Asian Development Bank
Abbreviations

APEC - Asia-Pacific Economic Cooperation
DMC - developing member country
NGO - nongovernment organization
OER - Office of External Relations (formerly known as Information Office)
Introduction

Indigenous peoples\textsuperscript{1} can be regarded as one of the largest vulnerable segments of society. While differing significantly in terms of culture, identity, economic systems, and social institutions, indigenous peoples as a whole most often reflect specific disadvantage in terms of social indicators, economic status, and quality of life. Indigenous peoples often are not able to participate equally in development processes and share in the benefits of development, and often are not adequately represented in national, social, economic, and political processes that direct development. While constituting a relatively small part of the population of ADB's region, indigenous peoples and their potential vulnerability must be regarded as significant in ADB's development efforts and interventions.

It is neither desirable nor possible to insulate or exclude indigenous peoples from development. Like dominant or mainstream populations—the group or groups in a country that are politically, economically, and culturally most powerful—indigenous peoples have developmental aspirations. However, indigenous peoples may not benefit from development programs designed to meet the needs and aspirations of dominant or mainstream populations, and may not be given the opportunity to participate in the planning of such development. There is increasing concern in the international development

\textsuperscript{1} "Indigenous peoples" as used in this paper encompasses a generic concept not easily reflected in a single term. Other terms relating to the concept of indigenous peoples as addressed in the ADB policy include "cultural minorities," "ethnic minorities," "indigenous cultural communities," "tribals," "scheduled tribes," "natives," and "aboriginals." Accepted or preferred terms and definitions vary country by country, by academic discipline, and even by the usage of groups concerned. "Indigenous peoples" is the term used in the United Nations documents, and is used by ADB solely for convenience.
community that indigenous peoples be afforded opportunities to participate in and benefit from development equally with other segments of society, and have a role and be able to participate in the design of development interventions that affect them.

The legislation and policies of most member countries of ADB recognize indigenous peoples as citizens. In practice, however, indigenous peoples often experience disadvantage in interaction with dominant and mainstream populations, especially as relates to development. Beyond not benefiting from development participating in the planning of development, indigenous peoples can be disadvantaged by loss of access to ancestral lands and the natural resources and other sources of income contained in these lands; loss of culture, social structures, and institutions; loss of indigenous knowledge; loss of recognition as indigenous peoples; and a lack of opportunities for effective participation in national, political, and economic processes. Lack of participation in development combined with the loss of access to land and resources have in many cases marginalized indigenous peoples. In some extreme cases, indigenous peoples have suffered physical oppression. In a few cases, indigenous cultures have disintegrated or disappeared.

In its operations, ADB recognizes and respects the sovereignty of its member countries, including national legislation and policy relating to indigenous peoples. However, at the same time, ADB recognizes a responsibility for ensuring equality of opportunity for indigenous peoples and that its operations and assistance in its developing member countries (DMCs) do not negatively affect the welfare and interests of indigenous peoples. If an ADB intervention does affect indigenous peoples negatively, adequate measures must be taken to mitigate the negative impact, or make certain that a compensation plan ensuring that project-affected people are as well off with the project as without it, is prepared and implemented.

ADB’s policy on indigenous peoples defines approaches that recognize the circumstances of indigenous peoples and that identify measures toward satisfying the needs and developmental aspirations of indigenous peoples. The policy focuses on the participation of indigenous peoples in development and the mitigation of undesired effects of development. The policy provides a working definition of
indigenous peoples to apply to ADB operations. The policy also addresses laws and international conventions that apply and practices of comparator institutions. Finally, the policy presents a set of objectives and operational approaches and procedures and considers the organizational implications of a formal ADB policy addressing indigenous peoples.
Definition of indigenous peoples

Developing a single, specific definition or identification for indigenous peoples would be difficult. Within the Asian and Pacific Region, individual indigenous peoples’ communities reflect tremendous diversity in their cultures, histories and current circumstances. Country by country, the relationships between indigenous peoples and dominant or mainstream groups of society vary.

From the perspective of developing a working definition of indigenous peoples for use in ADB operations, several aspects must be considered. A starting point would be to define indigenous peoples on the basis of characteristics they display. Two significant characteristics would be

- descent from population groups present in a given area, most often before modern states or territories were created and before modern borders were defined;
- maintenance of cultural and social identities; and social, economic, cultural, and political institutions separate from mainstream or dominant societies and cultures. In some cases, over recent centuries, tribal groups or cultural minorities have migrated into areas to which they are not indigenous, but have established a presence and continue to maintain a definite and separate social and cultural identity and related social institutions. In such cases, the second identifying characteristic would carry greater weight.
Additional characteristics often ascribed to indigenous peoples include

- self-identification and identification by others as being part of a distinct indigenous cultural group, and the display of a desire to preserve that cultural identity;
- a linguistic identity different from that of the dominant society;
- social, cultural, economic, and political traditions and institutions distinct from the dominant culture;
- economic systems oriented more toward traditional systems of production than mainstream systems;
- unique ties and attachments to traditional habitats and ancestral territories and natural resources in these habitats and territories.

Indigenous peoples also are described with reference to their ways of life. In many cases, indigenous peoples live in separated communities or cultural or ethnic groupings. Such communities and groupings often are located in areas geographically distant from urban centers and often function at the periphery of the political, social, cultural, and economic systems of the dominant or mainstream society. At the same time, however, it is not unusual to find indigenous peoples’ communities on the fringes of urban areas, comprising indigenous peoples who have migrated but remain distinct from the mainstream. Indigenous peoples’ communities in a given country can reflect varying degrees of acculturation and integration into the dominant or mainstream society.

A working definition employed in ADB’s operations as they affect indigenous peoples is:

*Indigenous peoples should be regarded as those with a social or cultural identity distinct from the dominant or mainstream society, which makes them vulnerable to being disadvantaged in the processes of development.*

In specific development interventions supported by ADB, the national legislation of the country in which the development intervention is taking place contributes to a basis for defining indigenous peoples. This includes constitutional, statutory, and customary law, as well as international law, including any international conventions
to which the country is a party. It would be necessary that other country-specific considerations be taken into account.

An operational determination of a distinct identity for indigenous peoples would be based in the requirements of applicable national law and the applicability of the definitions and characteristics described above. The application of any definition of indigenous peoples should work to differentiate between indigenous peoples and other cultural and ethnic minorities for which indigenous status is not an issue. The broader protection of vulnerable groups is an issue addressed in other policies and practices of ADB.

Case-specific identification of indigenous peoples affected by ADB operations and approaches to addressing specific indigenous peoples' concerns would be addressed in the process of initial social assessment and the preparation of an indigenous peoples plan (see pages 17-21 and the Appendix).
Indigenous peoples and development

As socioeconomic development takes place, many development initiatives are extending farther into geographically remote areas often considered the traditional homelands of indigenous peoples; these areas often offer resources such as forests, minerals, and hydropower potential. Roads, power transmission lines, and other infrastructure development initiatives similarly are extending into the traditional areas of indigenous peoples. In parallel with physical and economic development, dominant and mainstream populations and cultures also are extending themselves into the traditional areas of indigenous peoples.

Protection of indigenous peoples from development or maintenance of a status quo for indigenous peoples should not be a development objective. At the same time, it is not uncommon that interests of indigenous peoples differ from those of the mainstream, and that development policies and approaches addressing the interests of dominant and mainstream communities conflict with the interests of indigenous peoples. What may be in the broad national interest may not be in the specific interests of indigenous peoples, and development emerging from dominant and mainstream community-oriented initiatives may arrive in forms not consistent with indigenous peoples’ interests or concerns.

Development, as it most often is pursued, is intended to meet national goals and the interests of dominant and mainstream societ-
ies. Reducing poverty and improving the quality of life of people in general most often are the primary objectives of development. However, it is not always the case that poverty reduction and improvement in the quality of life realized from development extend equally to all segments of society, or that improvement reaches each segment of society. Moreover, in mainstream-oriented economic development policies, indigenous peoples may bear a disproportionate burden of the negative social, economic, and environmental effects that such development projects may bring, without realizing commensurate benefits.

**Goals and objectives of development**

There may be differences in views between dominant and mainstream societies and indigenous peoples' communities as to the broad goals and objectives that development should pursue. Development viewed from the mainstream often is measured in terms of economic advancement or gain and improvement in a mainstream-based definition of quality of life, and most often places emphasis on economic growth. From the development perspective of indigenous peoples, in addition to economic advancement, there may also be concern for social, cultural, environmental, and community aspects of development—development as a combination of economic advancement and social, cultural, and community development. Indigenous peoples sometimes view the principles and efforts of mainstream development as inappropriate or unsustainable, and as an intrusion into traditional ways of life. The physical intrusions of development interventions into the traditional domains of indigenous peoples, and social intrusions into indigenous cultures, can be viewed by indigenous peoples and others as a violation of rights—human rights, rights to land, and rights associated with the maintenance of culture.

**Culture and development**

Indigenous peoples' desires to protect their cultural identities and to preserve aspects of culture based in ancestral lands and resources is receiving increasing recognition within the international development community. Increasing recognition is being given to the principle of indigenous peoples determining their own pace and path of
development, and there is increasing recognition that social and cultural diversity is in the interest of society and is not an obstacle to national development or economic stability. There is increasing recognition that there is dignity in all cultures, that there should be equality in opportunity for all segments of society, and that all segments of society deserve opportunities for equal access to both the factors and the benefits of development.
Laws and conventions affecting indigenous peoples

National laws and practices

With a substantial portion of the world’s indigenous peoples living in Asia and the Pacific, virtually every country in the ADB’s region has an indigenous population. While the effectiveness of provisions may vary, some countries recognize the unique status of indigenous peoples and extend the privileges and protections of citizenship. Few countries have enacted laws that recognize any rights of indigenous peoples to ancestral lands, or that support indigenous peoples regaining and strengthening their social, cultural, and legal institutions. In many cases, enforcement of laws that may exist has been inadequate.

Some countries have experienced conflicts between interests of indigenous peoples and interests of dominant and mainstream communities. These conflicts most often relate to control over and exploitation of natural resources in the areas indigenous peoples claim as traditional domains. Appropriation of ancestral territories or resources in these territories by governments or external interests most often is justified as a part of economic development and growth. Indigenous peoples’ sparse occupation of large areas of land and nonintensive use of resources often is characterized by external interests as economic inefficiency or lost opportunity. Indigenous
peoples' land and resource management practices sometimes are viewed as unsustainable or environmentally damaging.

At the national level, in some cases, new laws, policies, and other measures may be necessary to reconcile competing demands and conflicting interests, especially if interests of indigenous peoples are to be protected. In any case, however, ADB must respect the will of governments, including legislation and policy that exists and the power of eminent domain that governments possess. Country programs and project selection will be developed in cooperation with governments. When difficulties are encountered, ADB may be able to provide guidance or assistance through mechanisms such as policy dialogue and technical assistance.

**International conventions and declarations**

The international community has shown increasing concern for the protection of the rights of indigenous peoples. Conventions and declarations of the international community provide a broad framework, as well as specific statements regarding the protection of indigenous peoples and their interests, cultures, ways of life, cultural survival, and development. It may be noted that some international instruments relating to indigenous peoples have not been ratified by large numbers of the international community.

The United Nations *Universal Declaration of Human Rights* (1948) and *International Covenant on Civil and Political Rights* (1966) have specific significance for indigenous peoples. The Universal Declaration provides a common standard for the human rights of all peoples and all nations, and proclaims the importance of traditional, political, and civil rights, as well as basic economic, social, and cultural rights. The Covenant spells out civil and political rights and guiding principles based on the Universal Declaration.

The 1957 International Labour Organisation (ILO) Convention No. 107, *Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries*, addresses the right of indigenous peoples to pursue material well-being and spiritual development, and was a first international instrument in specific support of indigenous peoples. Largely because of its view that indigenous peoples should be integrated into the larger society, a view that subsequently
came to be seen by many as inappropriate, Convention No. 107 was followed in 1989 by the ILO Convention No. 169, *Convention Concerning Indigenous and Tribal Peoples in Independent Countries*.

Convention No. 169 presents the fundamental concept that the way of life of indigenous and tribal peoples should and will survive, as well as the view that indigenous and tribal peoples and their traditional organizations should be closely involved in the planning and implementation of development projects that affect them. As the most comprehensive and most current international legal instrument to address issues vital to indigenous and tribal peoples, Convention No. 169 includes articles that deal with consultation and participation, social security and health, human development, and the environment. To date, Convention No. 169 has been ratified by only a few countries, and so far by none in the Asian and Pacific Region.

_Agenda 21_ adopted by the United Nations Conference on Environment and Development (UNCED) in 1992 recognizes the actual and potential contribution of indigenous and tribal peoples to sustainable development. The 1992 _Convention on Biodiversity_ calls on contracting parties to respect traditional indigenous knowledge with regard to the preservation of biodiversity and its sustainable use. The _Vienna Declaration and Programme of Action_ emerging from the 1993 World Conference on Human Rights recognizes the dignity and unique cultural contributions of indigenous peoples, and strongly reaffirms the commitment of the international community to the economic, social, and cultural well-being of indigenous peoples and their enjoyment of the fruits of sustainable development.

The United Nation's 1993 _Draft Declaration on the Rights of Indigenous Peoples_, developed with the direct participation of indigenous peoples' representatives and currently under consideration within the United Nations, addresses issues such as the right to participation, the right of indigenous peoples to direct their own development, the right of indigenous peoples to determine and develop priorities and strategies for the development or use of ancestral territories and resources, and the right to self-determination. The emerging concern for indigenous peoples prompted the United Nations to declare 1993 as the International Year of the World's Indigenous Peoples and the decade from December 1994 as the Indigenous Peoples' Decade.
Policy objectives, processes, and approaches within ADB

Policy objectives

In its operations, ADB observes a policy and associated strategies and approaches that recognize the potential vulnerability of indigenous peoples in development processes, and that ensure that indigenous peoples have opportunities to participate in and benefit equally from development. ADB’s strategies and approaches are designed to avoid negatively affecting indigenous peoples in its operations, and to provide adequate and appropriate compensation when a negative impact is unavoidable. ADB’s development efforts work to ensure that development initiatives affecting indigenous peoples are effective and sustainable. Such initiatives should be compatible in substance and structure with the affected peoples’ culture and social and economic institutions, and commensurate with the needs, aspirations, and demands of affected peoples. Initiatives should be conceived, planned, and implemented, to the maximum extent possible, with the informed consent of affected communities, and include respect for indigenous peoples’ dignity, human rights, and cultural uniqueness.

Strategies and approaches to development that affect indigenous peoples must include clear mechanisms for accurate, objective analysis of their circumstances. Development processes must incorporate transparency and accountability. The policy on indigenous peoples applies to operations in both the public and the private sectors.
The strategies and approaches employed by ADB in relation to indigenous peoples build on the existing strategic framework and operational experience. The policy addressing indigenous peoples complements and supports, and is complemented and supported by other ADB policies. Compliance with a policy on indigenous peoples does not obviate the requirement of compliance with other ADB policies.

**Operational processes**

**Initial social assessment**

The first step in addressing indigenous peoples’ concerns is through the initial social assessment (ISA). An ISA is required for every ADB development project. The ISA identifies intended project beneficiaries as well as groups that might be affected adversely. The ISA addresses people’s needs, demands, and capacities, as well as the key social dimensions that a project must address, such as involuntary resettlement, poverty reduction, human development, gender and development, and vulnerable groups. As such, indigenous peoples would be a specific concern to be considered in the ISA process. The ISA should be undertaken as early as possible in the project development process, preferably by the time of the project preparatory technical assistance (PPTA) fact-finding or other preparatory studies, to ensure that all relevant social concerns will be addressed in project design.

If the ISA determines that indigenous peoples are likely to be affected significantly by an ADB intervention or that indigenous peoples are disadvantaged or vulnerable in an intervention because of their social or cultural identity, a specific indigenous peoples’ plan addressing indigenous peoples and their concerns, that is time-bound and that has appropriate budget provisions, must be developed. This plan would be incorporated as an integral part of project design.

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2 For a detailed explanation of the ISA, see ADB’s *Operations Manual* (Section 47) and *Guidelines for Incorporation of Social Dimensions in ADB Operations*, ADB, Manila, October 1993, pp. 23-26. For specific approaches to the ISA, including sectoral checklists of relevant concerns, see *Handbook for Incorporation of Social Dimensions in Projects*, ADB, Manila, May 1994.
The ISA would address definition and identification of indigenous peoples in the specific context of the project in question. Such definition and identification would consider all relevant factors, including country-specific considerations and national legislation and policy. The indigenous peoples’ plan would focus specifically on indigenous peoples to be affected and specific socio-economic issues that would be significant.

**Indigenous peoples’ development plan**

For an ADB-assisted development project that affects indigenous peoples adversely and significantly, an indigenous peoples’ plan acceptable to the Bank must be prepared. Beyond addressing indigenous peoples’ populations and relevant social issues, the indigenous peoples’ plan must include specific measures and approaches to be taken to address issues affecting indigenous peoples. A project negatively affecting indigenous peoples must be appropriately redesigned to mitigate negative effects, or include an acceptable compensation plan. The provision of compensation should not be a substitute for efforts to avoid or mitigate negative effects a project may have.

The indigenous peoples’ plan would form a basis for project implementation and for monitoring and evaluation of how a project deals with indigenous peoples’ issues. Specific components or provisions of the plan must be included in the project design; the plan should address questions of sustainability of the proposed project as well as questions of its implementation. The Appendix to this brochure provides key elements to be considered in the creation of such a plan.

The responsibility for preparation of an indigenous peoples’ plan acceptable to ADB and for its implementation rests with the government or other project sponsors. ADB staff involved in the processing of a project affecting indigenous peoples must inform the government or other project sponsors of ADB’s policy on indigenous peoples. The indigenous peoples’ plan should be submitted to ADB by the government or private sector project sponsor preferably along with the feasibility study for the project. As the costs of an indigenous peoples’ plan would affect and be part of the overall cost of a project, and as implementation of the indigenous peoples’ plan would have effects on the overall implementation schedule of a project,
preparation of the plan must be completed no later than the appraisal stage of a project. ADB would support the efforts of the government or other project sponsors, as necessary and appropriate, through

- assistance in formulating and implementing the indigenous peoples’ plan;
- assistance in formulating policies, strategies, laws, regulations and other specific actions related to indigenous peoples;
- providing technical assistance to strengthen the capacity of agencies responsible for indigenous peoples; and
- financing eligible costs of implementing the indigenous peoples’ plan, if requested. For any project, the indigenous peoples’ plan necessarily must be completed before project appraisal.

The indigenous peoples’ plan would include an executive summary, with salient issues of this executive summary preferably to be included in the draft Report and Recommendation of the President (RRP) to be considered in the Management Review Meeting, and in every case in the final RRP for submission for Board of Directors’ consideration.

**Operational approaches**

In development efforts that affect indigenous peoples, it is necessary that ADB integrate concern for indigenous peoples into each step of programming, project processing, and policy development cycles. Beyond program- and project-related considerations, it is likely that structural constraints could affect realization of policy objectives. Such constraints may include a lack of

- an appropriate legislative framework in DMCs;
- necessary capacity of relevant development institutions and agencies;
- detailed and objective knowledge and information about indigenous peoples and their circumstances; and
- accurate and effective representation of indigenous peoples.

In addition to directly addressing the needs of indigenous peoples, strategies to overcome structural constraints should be explored.
Effective approaches to information dissemination and communication with indigenous peoples' communities should be identified, especially where conventional approaches to information dissemination and communication may not be effective. It may also be necessary to provide specific consideration to matters such as indigenous women's concerns.

Achievements that have been realized in the implementation of policies addressing indigenous peoples' concerns may form the basis for considering appropriate adjustments in borrowing countries' legislation and institutional channels. In this regard, it would be desirable that indigenous peoples' issues be addressed in project monitoring and evaluation activities, and that indigenous peoples participate in monitoring and evaluation processes. Modalities for policy development could include policy dialogue and other appropriate technical assistance. Ideally, development of necessary strategies would be based on consultations involving ADB, DMC governments, other project sponsors as appropriate, representatives of indigenous peoples, and other stakeholders.

Key issues that should be considered as ADB addresses indigenous peoples matters, and the continuity and development of indigenous peoples' communities, include

- legal recognition of ancestral domain and the traditional rights of indigenous peoples over land and resources;
- recognized legitimacy of the indigenous social and legal institutions of indigenous peoples; and
- recognition of the right of indigenous peoples to direct the course of their own development and change.

Institutional strengthening and capacity building support for indigenous peoples' communities should be provided as necessary and appropriate. Similarly, as necessary and appropriate, institutional strengthening and capacity building support should be provided to relevant government entities when such support would increase the effectiveness and efficiency of such entities.
Organizational implications

The Office of Environment and Social Development (OESD) holds primary organizational responsibility for implementation of ADB’s policy on indigenous peoples. OESD provides guidance and assistance to other departments and offices on the application of the policy in ADB operations, and consults with these departments and offices on the development of relevant operational practices and procedures.

OESD is responsible for developing and coordinating operational guidelines for implementation and operationalization of the policy on indigenous peoples. These guidelines are developed with the active input and cooperation of other departments and offices of ADB. On an ongoing basis, OESD gathers and disseminates relevant information to other units of ADB.

OESD has a Social Development Specialist as ADB-wide focal point and resource person to provide specific advice and guidance on matters related to indigenous peoples in ADB’s operations. OESD holds responsibility for reporting as required on the implementation and application of an indigenous peoples’ policy.

The Programs Departments are responsible for applying the policy on indigenous peoples as it relates to country programming, and for incorporating such policy aspects in the development of country strategies and in project and technical assistance identification. This process would be a part of policy dialogue with governments. As country-level programming processes, including those related to the preparation of the Country Operational Strategy, are the initial steps in country-level project identification, concern for indigenous peoples’
matters would have significance in these processes. The Programs Departments consider social development issues as they arise in country programming processes and in economic and sector work. Resident Missions are country-level points of contact on matters relating to indigenous peoples and provide advice to Headquarters staff. Headquarters provides necessary support in this regard.

The Projects Departments have responsibility for project-specific aspects of indigenous peoples policy, including making governments, project executing agencies, and other project sponsors aware of ADB’s policy provisions and requirements. This responsibility will apply to project identification, processing, implementation, and monitoring. The Projects Departments are normally responsible for the initial social assessment process, and for the development of appropriate indigenous peoples’ development plans when required.

The Office of Pacific Operations holds responsibility for indigenous peoples’ policy as it relates to operations in ADB’s Pacific DMCs.

The Operations Evaluation Office, through its postevaluation function, is responsible for assessing the effectiveness of ADB’s operations in implementing and applying the policy on indigenous peoples, and the development of appropriate evaluation criteria.
Policy on indigenous peoples

Policy on indigenous peoples in ADB operations

For development interventions it supports or assists, ADB will ensure that affected populations and persons are at least as well-off as they would have been in the absence of the intervention, or that adequate and appropriate compensation is provided. The policy ensures equality of opportunity for indigenous peoples. The policy ensures the ADB interventions affecting indigenous peoples are

- consistent with the needs and aspirations of affected indigenous peoples;
- compatible in substance and structure with affected indigenous peoples' culture and social and economic institutions;
- conceived, planned, and implemented with the informed participation of affected communities;
- equitable in terms of development efforts and impact; and
- not imposing the negative effects of development on indigenous peoples without appropriate and acceptable compensation.

The policy, together with practices addressing indigenous peoples, applies in parallel with and does not replace or supersede other ADB policies and practices. Each of the elements of the policy and practice addressing indigenous peoples are considered within the context of national development policies and approaches, and the fundamental
relationship between ADB and governments remains the basis for country-specific operations.

The policy on indigenous peoples ensures that the process of initial social assessment mandated in ADB operations includes specific consideration of indigenous peoples as a potentially affected population. If the initial social assessment identifies indigenous peoples specifically as a significantly and adversely affected population, or vulnerable to being so affected, it is required that an indigenous peoples’ plan acceptable to ADB be prepared by a government or other project sponsors.

ADB will work to develop necessary and appropriate internal capacities for addressing indigenous peoples’ matters in its operational activities.

ADB will work with borrowing member countries as appropriate and necessary to support and assist the development of capacities for addressing indigenous peoples’ matters. As necessary and appropriate, specific institutional development and capacity-building support would be provided to both indigenous peoples’ communities and to governments, consistent with ADB’s policies and approaches addressing institutional development and capacity building.
Appendix

Key elements in an indigenous peoples development plan

1. The responsibility for preparation of an indigenous peoples plan acceptable to ADB rests with the relevant government or project sponsor. ADB will support the efforts of the government or project sponsor as necessary and appropriate. Key elements in ensuring that an appropriate indigenous peoples development plan is prepared include

   (i) preparation, during project design, of a development plan that takes into full account the desires and preferred options of indigenous peoples affected by the project;
   (ii) studies to identify potential adverse effects on indigenous peoples to be induced by the project, and to identify measures to avoid, mitigate, or compensate for these adverse effects;
   (iii) measures to ensure the capacity or the strengthening of the social, legal, and technical skills of government institutions to be responsible under the project for dealing with indigenous peoples;
   (iv) involvement of appropriate existing institutions, local organizations, and nongovernment organizations with expertise in matters relating to indigenous peoples;
   (v) consideration in project design of local patterns of social organization, cultural belief, and ancestral territory and resource use;
(vi) support for viable and sustainable production systems that are adapted to the needs and local environments and circumstances of indigenous peoples;

(vii) avoidance of creating or aggravating the dependency of indigenous peoples on project entities, and instead promoting self-reliance among these peoples;

(viii) capacity building for indigenous peoples communities and organizations to facilitate and support effective participation in development processes; and

(ix) adequate lead time and arrangements for extending follow-up, especially in dealing with indigenous peoples in remote or neglected areas where little previous experience is available.

Consultation with indigenous peoples groups is key to developing an effective, accurate, responsive indigenous peoples development plan.

2. Indigenous peoples often lack the information, knowledge, analytical and organizational capacities, and political channels and power to influence and direct development processes that directly or indirectly affect their lives. The following basic principles should apply to ADB-supported projects that affect indigenous peoples.

(i) All development plans for indigenous peoples, including provisions for mitigation measures, should be based on full consideration of the options and approaches, including requirements for consultation, that best meet the interests of individuals and communities affected by projects. Qualified specialists should be involved in the formulation of such plans and mitigation measures, in consultation with the persons affected, both men and women. The development of approaches, plans, and mitigation measures must include consultation with the peoples affected.

(ii) When it is indicated that a project will have adverse effects on indigenous peoples, it is necessary that the scope and impact of such adverse effects be thoroughly assessed by qualified experts or agencies, and that appropriate mitigation measures are identified in feasibility studies. It is preferable that the net impact
a project will have on indigenous peoples be not only positive, but also be perceived by indigenous peoples as positive. If individuals or communities must lose their social support systems or ways of life so that a project can proceed, they should be compensated appropriately.

(iii) Project design should take into consideration the social and cultural context of affected peoples, and their skills and knowledge relating to local resource management. Project design should draw upon the strengths of indigenous peoples organizations and communities, as well as traditional social organizations and indigenous knowledge, and as far as feasible should avoid introducing undesirable or unacceptable changes in the way of life of indigenous communities.

(iv) During project preparation, those preparing the project should promote the formation or strengthening of indigenous peoples' organizations and communications to facilitate their participation in project identification, planning, execution, and evaluation. As needed, provision should be made to train indigenous peoples in project management activities.

(v) Where previous experience and knowledge of working successfully with indigenous peoples is lacking, pilot-scale operations should be carried out and evaluated prior to the execution of full-scale efforts.

(vi) If government institutions responsible for interaction with indigenous peoples do not possess the necessary legal, social, and technical capacities, or if their relationship with indigenous peoples is weak, the involvement of experienced local community organizations and nongovernment organizations that can serve as intermediaries and that are acceptable to all parties involved, including governments, should be sought. Consideration should be given to traditional representative institutions. Approaches to developing the capacity of government institutions should be explored.

(vii) ADB approval of a project should not be based only on the concept and quality of project design, but also on the orientation, capacity, and operational record of the government agencies or other project sponsors concerned in executing the project.
IN Voluntary Resettlement

A. Introduction

1. The involuntary resettlement policy provides an effective opportunity for people who dispossessed or displaced to achieve development benefits. The policy that addresses losses of land, resources, and means of livelihood or social support systems, which people suffer as a result of an ADB projects and project components in its developing member countries (DMCs). The involuntary resettlement policy applies to all ADB’s operations in DMCs. The involuntary resettlement policy is a key ADB safeguard consonant with the Poverty Reduction Strategy and the Long-Term Strategic Framework.

B. Definitions

2. “Involuntary resettlement” addresses social and economic impacts that are permanent or temporary and are (i) caused by acquisition of land and other fixed assets, (ii) by change in the use of land, or (iii) restrictions imposed on land as a result of an ADB operation. An “affected person” is one who experiences such impacts.

C. The Policy

3. The involuntary resettlement policy objectives are (i) to avoid involuntary resettlement wherever feasible; (ii) to minimize resettlement where population displacement is unavoidable by choosing alternative viable project options; and (iii) where involuntary resettlement is unavoidable, to ensure that affected people receive assistance, preferably under the project, so that they will be at least as well off as they would have been in the absence of the project. Where involuntary resettlement is unavoidable, the policy is designed to include any resulting losses in project budgets. The policy treats involuntary resettlement as a development opportunity and allows planners to manage impoverishment risks and turn the people dispossessed or

1 ADB projects includes (i) public sector project loans, program loans, sector loans, sector development program loans, financial intermediation loans, private sector loans or equity investments, and guarantees for funding of specific projects or subprojects; (ii) all project components regardless of the source of financing. (See also OM Section F2/OP, para. 2.)

2 Other safeguard policies address environment (OM Section F1) and indigenous peoples (OM Section F3).

3 The term affected person includes any people, households, firms, or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with or without displacement. See para. 4(viii) on the meaning of “eligibility cut-off date.”
displaced into project beneficiaries, particularly the poor and vulnerable, who may be disproportionately affected by resettlement losses.

D. Scope of the Policy

4. The three important elements of the involuntary resettlement policy are (i) compensation to replace lost assets, livelihood, and income; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. Some or all of these elements may be present in a project involving involuntary resettlement. For any ADB operation requiring involuntary resettlement, resettlement planning is an integral part of project design, to be dealt with from the earliest stages of the project cycle, taking into account the following basic principles:

(i) Involuntary resettlement should be avoided whenever feasible.

(ii) Where population displacement is unavoidable, it should be minimized by providing viable livelihood options.

(iii) Replacing what is lost. If individuals or a community must lose all or part of their land, means of livelihood, or social support systems, so that a project might proceed, they will be compensated and assisted through replacement of land, housing, infrastructure, resources, income sources, and services, in cash or kind, so that their economic and social circumstances will be at least restored to the preproject level. All compensation is based on the principle of replacement cost.

(iv) Each involuntary resettlement is conceived and executed as part of a development project or program. ADB and executing agencies or project sponsors, during project preparation, assess opportunities for

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4 Rehabilitation measures include restoration of access to public facilities, infrastructure, and services; and to cultural property and common property resources. Measures to mitigate loss of access to cultural sites, public services, water resources, grazing, or forest resources include establishment of access to equivalent and culturally acceptable resources and income-earning opportunities. Such measures must be determined in consultation with affected communities, whose rights might not be formally recognized in national legislation. Where people are seriously affected by the loss of assets, incomes, and employment, compensation solely for lost assets may not be adequate to restore their economic and social base. Such people will be entitled to rehabilitation assistance measures for restoring incomes and living standards. See OM Section F2/OP, Section C.

5 If the residual of an asset taken is not economically viable, compensation and other assistance are provided as for the entire asset. In this case, affected people have the option to retain their assets. Nonland based options may be used where land is not the preferred option of the affected people; or where land of similar quality and quantity is not available.

6 Replacement cost means the method of valuing assets to replace the loss at market value, or its nearest equivalent, plus any transaction costs such as administrative charges, taxes, registration, and titling costs. Where national law does not meet this standard the replacement cost will be supplemented as necessary. Replacement cost is based on market value before the project or dispossession, whichever is higher. In the absence of functioning markets, a compensation structure is required that enables affected people to restore their livelihoods to levels at least equivalent to those maintained at the time of dispossession, displacement, or restricted access.

7 ADB may treat resettlement either as part of the main investment or as a free-standing resettlement project that is prepared, financed, and implemented in association with the main investment.
affected people to share project benefits. The affected people need to be provided with sufficient resources and opportunities to reestablish their livelihoods and homes as soon as possible, with time-bound action in coordination with the civil works.

(v) **The affected people are to be fully informed and closely consulted.** Affected people are to be consulted on compensation and/or resettlement options, including relocation sites, and socioeconomic rehabilitation. Pertinent resettlement information is to be disclosed to the affected people at key points, and specific opportunities provided for them to participate in choosing, planning, and implementation options. Grievance redress mechanisms for affected people are to be established. Where adversely affected people are particularly vulnerable groups, resettlement planning decisions will be preceded by a social preparation phase to enhance their participation in negotiation, planning, and implementation.

(vi) **Social and cultural institutions.** Institutions of the affected people, and, where relevant, of their hosts, are to be protected and supported. Affected people are to be assisted to integrate economically and socially into host communities so that adverse impacts on the host communities are minimized and social harmony is promoted.

(vii) **No formal title.** Indigenous groups, ethnic minorities, pastoralists, people who claim for such land without formal legal rights, and others, who may have usufruct or customary rights to affected land or other resources, often have no formal legal title to their lands. The absence of a formal legal title to land is not a bar to ADB policy entitlements.

(viii) **Identification.** Affected people are to be identified and recorded as early as possible in order to establish their eligibility through a population record or census that serves as an eligibility cutoff date, preferably at the project identification stage, to prevent a subsequent influx of encroachers or others who wish to take advantage of such benefits.8

(ix) **The Poorest.** Particular attention must be paid to the needs of the poorest affected people,9 and vulnerable groups that may be at high risk of impoverishment. This may include those without legal title to land or other assets, households headed by females, the elderly or disabled and other vulnerable groups, particularly indigenous peoples.10 Appropriate

8 An eligibility cutoff date should be established as soon as possible in the project cycle. See OM Section F2/OP, para. 5, footnote 5.
9 The resettlement planning documents will, in each case, define the poorest and vulnerable groups, using, as appropriate, the poverty line as defined in the poverty partnership agreement with the DMC concerned, or other accepted ADB documents. A range of other documents may also provide information on poverty in the project area. Resettlement planning documents, including full and short resettlement plans and resettlement frameworks, are described in OM Section F2/OP, Section E.
10 When significant indigenous peoples or ethnic minority issues are identified, as defined in OM Section F3, special attention will be paid to exploring viable alternative designs that will reduce or eliminate such impacts. An Indigenous Peoples Development Plan may be required in addition to a resettlement plan. If the indigenous people issues are judged to be less than significant, specified “indigenous people actions”
assistance must be provided to help them improve their socio-economic status.

(x) **The full resettlement costs are to be included in the presentation of project costs and benefits.** This includes costs of compensation, relocation and rehabilitation, social preparation and livelihood programs as well as the incremental benefits over the without-project situation (which are included in the presentation of project costs and benefits). The budget also includes costs for planning, management, supervision, monitoring and evaluation, land taxes, land fees, and physical and price contingencies. Where loans include subprojects, components or investments prepared only after project approval and loans through financial intermediaries that are likely to cause involuntary resettlement, sufficient contingency allowance must be allocated for resettlement prior to approval of the loan. Similarly, resettlement plans should also reflect the timeframe for resettlement planning and implementation.

(xi) **Eligible costs of compensation.** Relocation and rehabilitation may be considered for inclusion in ADB loan financing for the project, if requested, to assure timely availability of the required resources and to ensure compliance with involuntary resettlement procedures during implementation.

E. **ADB’s Assistance to the Borrower**

5. ADB’s support for projects requiring significant involuntary resettlement includes the offer of assistance to executing agencies (EAs) and other project sponsors, through grant or loan financing, to adopt and implement the above basic principles of ADB’s involuntary resettlement policy within their own legal, policy, administrative, and institutional frameworks. Similarly, ADB may also offer assistance to build the capacity of the EA and other project sponsors to prepare and implement the agreed resettlement planning document effectively, to enhance a DMC’s national standards and capacities for involuntary resettlement, and to develop consistent sector standards.

6. For all public and private sector projects with involuntary resettlement, the EA and other project sponsors prepare and submit to ADB, before the first management review meeting or the private sector credit committee meeting, a draft resettlement planning document with time-bound actions and budgets that addresses the principles set out in paragraph 4. A summary of the draft resettlement planning document must be included in the RRP. A satisfactory resettlement plan/framework must be submitted by

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11 Involuntary resettlement costs eligible for loan financing may include, for example, income restoration, relocation, site development, social preparation, monitoring, and evaluation.

12 Resettlement will be “significant” where 200 or more people experience major impacts. Major impacts are defined as involving affected people being physically displaced from housing and/or having 10% or more of their productive, income generating assets lost. See also OM Section F2/OP, para. 19.

13 The resettlement planning document satisfactory to ADB must be submitted by the government or, for private sector projects, the project sponsors, to ADB, preferably together with the feasibility study for the project, but in any case before project appraisal.
the EA or the project sponsors to ADB, preferably together with the project feasibility study, but in any case, before project appraisal. Resettlement is reviewed throughout the project implementation, with reviews being planned from the outset to allow the government or project sponsors and ADB to make necessary adjustments to address the involuntary resettlement policy principles during implementation. Since complete recovery can be protracted, reports on involuntary resettlement are required at project completion and may be required, sometimes even after project facilities are commissioned.

**Basis:**

This OM section is based on:


This OM section is to be read with OM Section F2/OP.

**Compliance:**

This OM section is subject to compliance review.

**For inquiries:**

Questions may be directed to the Chief Compliance Officer, Regional and Sustainable Development Department.
INVoluntary Resettlement

1. Application of the involuntary resettlement policy helps avoid impoverishment among project-affected persons, facilitate efficient project implementation, and minimize controversy and costly delay.

A. Scope and Application

2. The policy applies to all ADB projects\textsuperscript{1} and project components\textsuperscript{2}, regardless of whether the source of financing is ADB, its cofinanciers, or the government. It also covers actions conducted in anticipation\textsuperscript{3} of ADB operations.

3. Involuntary resettlement is addressed early in the project cycle to screen for involuntary resettlement effects, to avoid or minimize such effects, and to conduct due diligence. Wherever screening procedures identify likely involuntary resettlement, the policy requires efforts to avoid or minimize such effects through review of feasible alternative project design and location options. The reviews allow evaluation of risks, alternatives, and tradeoffs, and open the way for development opportunities with early stakeholder involvement, including affected people\textsuperscript{4} and their representatives, local government, civil society groups, and others.

4. Affected people eligible for policy entitlements are identified and recorded as early as possible. People requiring particular assistance, such as the poor and the vulnerable, including those without legal title to land, are identified to plan specific measures to mitigate hardships and to assist them in improving their livelihoods. At all stages, resettlement identification, planning, and management will ensure that gender concerns are incorporated, including gender-specific consultation and information disclosure. This includes special attention to guarantee women’s assets, property, and land-use rights; and to ensure the restoration of their income and living standards.

5. To prevent an influx of ineligible nonresidents who might take advantage of project entitlements and speculate on land values, and to prevent speculation by eligible

\textsuperscript{1} See OM Section F2/BP, footnote 1.

\textsuperscript{2} The term “project components” does not cover associated facilities that are not under the influence of the executing agency or project sponsor. Due diligence must be conducted to determine the level of risk to affected people and to ADB by association.

\textsuperscript{3} ADB conducts resettlement due diligence to determine whether there are any outstanding resettlement-related grievances that may undermine the investment. While preparing for project preparation technical assistance (PPTA) fact-finding, the project team uses the resettlement screening checklist of the initial poverty and social assessment to ascertain whether there had been any land acquisition and/or site clearing at the proposed project site. If no PPTA is conducted, the project team conducts resettlement due diligence and includes the findings in the report and recommendation of the President for MRM submission. If any land acquisition and/or site clearing had taken place in anticipation of the proposed project, ADB requires and assists the executing agency or project sponsor to formulate and implement a retrofitted resettlement plan that meets the ADB involuntary resettlement policy.

\textsuperscript{4} See OM Section F2/BP, para. 2 and footnote 3 for a definition of an affected person or people.
affected persons, the project will establish an eligibility cutoff date. Where projects provide direct benefits to communities, and are amenable to a local decision-making process, arrangements to deal with losses on a transparent, voluntary basis may be included in resettlement plans, with appropriate safeguards.

6. Where involuntary resettlement is unavoidable, the policy requires satisfactory resettlement planning documents. ADB informs the executing agency (EA) or other project sponsors of the involuntary resettlement policy and related OM requirements. Starting early in the project cycle, ADB assesses government policies, experiences, institutions, and the legal framework for involuntary resettlement to address any inconsistencies with the policy.

7. The responsibility for planning and implementing involuntary resettlement rests with the EA or other project sponsors. ADB offers support for the efforts of the EA or other project sponsors, when considered necessary for involuntary resettlement policy compliance, for (i) formulating and implementing resettlement policies, strategies, and plans; (ii) providing technical assistance to strengthen the capacity of agencies responsible for involuntary resettlement; and (iii) financing eligible resettlement costs through loan financing, if requested.

8. The level of social and economic information that forms the basis for the resettlement planning documents becomes progressively more specific from identification through the feasibility stage, and generally becomes fully adequate after detailed technical design. ADB reviews the resettlement planning document to ensure that it meets ADB requirements, and monitors its implementation.

B. Eligibility under the Policy

9. Lack of formal legal title to land by any affected people is not a bar to ADB policy entitlements. In order to assist affected people who may not be entitled to compensation for loss of land under the applicable legal framework of the developing member country (DMC) concerned, eligible affected people are classified into three groups with respect to land title, each of which will have different entitlements as set out in Section C.

   (i) Titled: Those who have formal legal rights to land, including any customary or traditional rights recognized under the laws of the country.

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5 The eligibility cutoff date could be the date of the delineation of the project area prior to population record or census, the date of commencement of the population record or the census within the project area boundaries, or public notification of the project by appropriate authorities.

6 For projects that directly benefit communities and involve community decision-making and management, such as small-scale health, education, water or transport facilities, safeguards may be built into the community decision-making process to deal with any losses that arise. Such safeguards include (i) full consultation with landowners and any nontitled affected people on site selection; (ii) ensuring that voluntary donations do not severely affect the living standards of affected people, and are linked directly to benefits for the affected people, with community sanctioned measures to replace any losses that are agreed to through verbal and written record by affected people; (iii) any voluntary “donation” will be confirmed through verbal and written record and verified by an independent third party such as a designated nongovernment organization or legal authority; and (iv) having adequate grievance redress mechanisms in place. All such arrangements will be set out in a resettlement framework that is prepared before the first management review meeting or private sector credit committee meeting and covenanted.

7 Section E sets out requirements for resettlement planning documents.
(ii) **Legalizable:** Those who do not have formal legal rights to land when the affected population is recorded, but could claim rights to such land, under the DMC’s laws.\(^8\)

(iii) **Nontitled:** Those who have no recognizable rights or claims to the land that they are occupying.

10. People moving into the project location, or assets that are constructed after the eligibility cutoff date are not entitled to compensation or other assistance.

### C. Involuntary Resettlement Entitlements

11. Where land and assets are lost, titled\(^9\) (para. 9[i]) and legalizable (para. 9[ii]) affected people are entitled to compensation, in the form of cash at replacement cost or replacement land, and to other assistance to at least restore their economic and social base. Whereas nontitled affected people (para. 9[iii]), including displaced tenants, sharecroppers, and squatters, are entitled to various options of resettlement assistance, provided that they cultivated/occupied the land before the eligibility cutoff date. Resettlement assistance to nontitled affected people may also include replacement land, although there is no entitlement to this for such affected people. The resettlement package may include measures to ensure that such affected people are able to find alternative sites or income sources, depending on their losses. Where government compensation for land is inadequate to restore the affected people’s economic and social base, additional socially appropriate measures are required. Policy preference is for integrating people dislocated from agricultural settings into similar settings. Land-based strategies may include provision of replacement land, ensuring greater security of tenure, and upgrading livelihoods of people without formal land titles. If suitable replacement land is unavailable, other strategies may be built around opportunities for retraining, skill development, wage employment, or self-employment, including access to credit. This is particularly important for indigenous peoples, whose degree of integration to mainstream society is limited.

12. For nonland assets, all eligible affected people, whether titled, legalizable, or nontitled, need to be compensated at replacement cost through cash or replacement assets. Included among these affected people are renters of buildings affected by a project, who should receive assistance to find alternative rental premises comparable to those occupied before the project.

13. All eligible affected people, including tenants and employees of affected businesses who stand to lose their jobs, incomes, or livelihoods because of project impacts, are entitled to receive one-time financial assistance to cover losses of the move, as well as economic and social rehabilitation. Such entitlements may include

   (i) relocation and transfer expenses;

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\(^8\) Such claims may result from recognition of prescriptive rights, from adverse possession, from continued possession of public lands without eviction, through eligibility for a government land titling process, or from customary or traditional usage.

\(^9\) If affected people with title to land have encroached from their legitimate landholding onto land that they do not own, they will be compensated only for the legitimately occupied piece and legitimate assets.
(ii) assistance for transitional income and livelihood support;

(iii) compensation for crop or business losses;

(iv) reestablishment of agricultural or business production;

(v) assistance for income restoration; and

(vi) assistance for restoring social services, social capital, community property, and resources.

14. The need for and the magnitude of such entitlements and the delivery schedule of rehabilitation provisions will be determined through the initial poverty and social analysis and detailed resettlement planning. In each DMC, entitlements will generally be established in consultation with the affected people in accordance with applicable policies and laws, and ADB’s involuntary resettlement policy standards.

15. Community and public resource losses to be considered as eligible for compensation include

(i) common property resources, including water bodies, forest, woodland, pasture, and community recreation, and cultural sites;

(ii) public structures such as markets, health and educational facilities, water and washing points, and meeting houses; and

(iii) infrastructure such as roads, bridges, and other transport lines; power facilities; telecommunication lines; and water sanitation and drainage facilities.

16. Measures to improve the status of the poor and vulnerable people should focus on strategies to avoid further impoverishment and create new income opportunities. Among them are:

(i) reducing barriers, for example, to employment opportunities, such as project work;

(ii) improving access to and delivery of essential services, including those that can be provided by the project;

(iii) empowering people through good governance, sound participatory processes, and effective organization; and

(iv) reducing vulnerability to poverty through asset-building strategies such as development grants, land-for-land, replacement housing of minimum standard, and increased security of tenure.10

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17. Interventions are to be designed with participation by, and consultation with affected people, including the poor and vulnerable to ensure that their needs, priorities and preferences are addressed. Such participation and consultation need to be carried out in a transparent manner.

D. Involuntary Resettlement Identification and Categorization

1. Involuntary Resettlement Screening

18. Projects are assigned an involuntary resettlement category depending on the significance of the probable involuntary resettlement impacts.

a. Involuntary Resettlement Category A: Significant

19. “Significant” means 200 or more people will experience major impacts, which are defined as

   (i) being physically displaced from housing, or

   (ii) losing 10% or more of their productive assets (income generating).

Category A projects require a full resettlement plan. Some of these projects may require a resettlement framework prior to the full resettlement plan.

b. Involuntary Resettlement Category B: Not Significant

20. Category B projects include involuntary resettlement impacts that are not deemed significant and require a short resettlement plan. Some of these projects may require a resettlement framework prior to the short resettlement plan.

c. Involuntary Resettlement Category C

21. No involuntary resettlement effects are foreseen in category C projects. They neither require a resettlement plan nor a resettlement framework.

22. Screening for involuntary resettlement is to be conducted as early as possible in the project cycle, at the project concept stage where feasible, and no later than project or program preparatory technical assistance, project preparatory note fact-finding, or due diligence. A project’s involuntary resettlement category is determined by the category of its most resettlement-sensitive component. Screening and categorization are initiated by the operations department, and then confirmed by the chief compliance officer (CCO). This is intended as a guide, based on available data, to identify subsequent approaches, and resource requirements to address involuntary resettlement issues during project processing. Classification is an ongoing process, and the involuntary resettlement category can be changed at any time with the approval of the CCO as more detailed information becomes available and project processing proceeds. However, in case of doubt in the early stages of project preparation, a resettlement-planning document must be prepared.
2. Initial Poverty and Social Assessment\textsuperscript{11}

23. An initial poverty and social assessment (IPSA) is required for every development project and should be undertaken as early as possible in the project cycle, and preferably by the time of fact-finding for a PPTA or other project preparatory study or due diligence, so that appropriate measures and sufficient resources for resettlement planning can be included in the terms of reference for the feasibility study. Depending on how firm the project concept is at this stage, the IPSA may also identify people, households, and communities likely to be affected by involuntary resettlement, using an involuntary resettlement checklist. If the IPSA indicates that involuntary resettlement is likely, resettlement planning is required, preferably in conjunction with the preparation of the feasibility study. The IPSA also identifies the institutions that will be involved in resettlement planning and management, and assesses their capacities.

24. Based on how firm the project concept is at this stage, the IPSA can help identify the resources and steps required to determine project sites and alignments. If possible, it quantifies any land acquisition, land changes, or restrictions that will necessitate involuntary resettlement planning. The IPSA flags the necessary and sufficient conditions for resettlement planning and is the basis for assuring the budget and resources for preparing the resettlement plan.

E. Resettlement Planning Documents

25. Planning documents are developed according to the significance and timing of involuntary resettlement impacts. The contents and level of detail vary with circumstances. However, they necessarily cover the following essential elements. Each document includes an executive summary.\textsuperscript{12}

1. Full Resettlement Plan

26. A full resettlement plan includes a statement of involuntary resettlement objectives and strategy, with (i) organizational responsibilities; (ii) community participation and disclosure arrangements; (iii) findings of the socioeconomic survey and social and gender analysis; (iv) legal framework, including eligibility criteria and an entitlement matrix; (v) mechanisms for resolution of conflicts and appeals procedures; (vi) identification of alternative sites and selection; (vii) inventory, valuation of, and compensation for, lost assets; (viii) landownership, tenure, acquisition, and transfer; (ix) access to training, employment, and credit; (x) shelter, infrastructure, and social services; (xi) environmental protection and management; (xii) monitoring and evaluation; (xiii) a detailed cost estimate with budget provisions; and (xiv) an implementation schedule, showing how activities will be scheduled with time-bound actions in coordination with the civil works.

\textsuperscript{11} The IPSA replaces the initial social assessment (ISA). See OM Section C3 for a description of IPSA.

\textsuperscript{12} See the Handbook on Resettlement: A Guide to Good Practice (footnote 10), which provides guidance for preparing resettlement plans.
2. Short Resettlement Plan

27. A short resettlement plan covers the same issues as that of a full resettlement plan, as relevant, but in less detail. However, the short resettlement plan must ensure that adequate compensation, rehabilitation, and relocation arrangements are planned and budgeted.

3. Resettlement Framework

28. For ADB equity investments, loans, and/or guarantees, including through financial intermediaries with investments, subprojects, or components that have not been selected or prepared before appraisal and that may involve involuntary resettlement, a resettlement framework must be submitted before the first management review meeting (MRM) or private sector credit committee meeting (PSCCM), unless they are expected to have no resettlement effects (see also paras. 37–43). A resettlement framework sets out the broad magnitude of the scope, together with the policy, procedures, and capacity-building requirements for preparing future subprojects, components, or investments.

29. The resettlement framework sets out the resettlement policy and screening and planning procedures that will apply to subprojects, components, or investments that are prepared and approved during loan implementation to ensure that they conform to ADB’s involuntary resettlement policy. The resettlement framework contains the arrangements for preparing full or short resettlement plans during implementation of the loan’s subprojects, depending on the significance of the involuntary resettlement impacts. The resettlement framework includes (i) loan or investment description, with the likely scope, extent, and magnitude of the resettlement effects; (ii) screening procedures for pipeline investments or components; (iii) resettlement policy principles and eligibility criteria that are consistent with the policy and cover all investments, subprojects, and components under the loan; (iv) resettlement entitlements; (v) resettlement design criteria; and (vi) administrative, resourcing, and financing arrangements for preparation, approval, implementation, monitoring, and evaluation of full or short resettlement plans. It also sets out provisions for strengthening the capacity of the relevant executing agency, project sponsor, or financial intermediary if required to address resettlement issues. The resettlement framework may stand alone or may accompany a resettlement plan or plans for a known site, investment or core subproject that is prepared before the first MRM or PSCCM.

F. Compliance Requirements

30. At MRM/PSCCM. This section sets out the compliance standards for a satisfactory resettlement planning document, based on feasibility study or more developed design, that must be reflected in the report and recommendation of the President (RRP) presented for the first MRM or PSCCM. A summary resettlement plan and/or framework will be prepared based on the draft resettlement plan or framework of the EA or the project sponsor and will be circulated with the RRP that is submitted to Management before the first MRM or PSCCM. Involuntary resettlement forms one part of the safeguard policy compliance (SPC) memorandum that is prepared and signed by the Environment and Social Safeguard Division (RSES) and approved by the CCO. A draft resettlement plan and/or framework must meet all the requirements of ADB policy
and must be endorsed by the EA or project sponsor. The draft resettlement plan/framework is subject to review by the CCO. The draft resettlement plan and/or framework will state any further planning action that may be required prior to implementation, together with specific actions required during implementation.

31. **At Appraisal.** A satisfactory resettlement plan/framework must be submitted by the EA or the project sponsors to ADB, preferably together with the project feasibility study, but in any case, before project appraisal. Subsequently, loan agreements must include specific involuntary resettlement covenants that describe the measures agreed for involuntary resettlement management, making direct reference, wherever necessary, to the requirement for implementing resettlement plans/frameworks in accordance with ADB’s involuntary resettlement policy. This ensures compliance with ADB’s involuntary resettlement policy by executing agencies, contractors, and supervision consultants. The provisions of the resettlement plans/frameworks must also be reflected fully in the project administration memoranda. Moreover, the formulation of contract packages must be consistent with the resettlement plan.

1. **Resettlement Plan**

32. ADB ensures that the executing agency/project sponsor submits the draft resettlement plan, preferably together with the project’s feasibility study, but in any case for review before the first MRM or PSCCM. All costs of resettlement and compensation, including the costs of social preparation and livelihood programs, together with the incremental benefits over the "without-project" situation, must be included in the project costs and benefits. To ensure timely availability of required resources and compliance with involuntary resettlement procedures during implementation, eligible resettlement costs may be considered for inclusion in ADB loan financing for the project, if requested.

33. The feasibility study is expected to address any resettlement effects well before the first MRM or PSCCM, to facilitate the analysis of a project’s technical, financial, economic, environmental, and social viability. The resettlement plan, preferably prepared in conjunction with the feasibility study, should cover the essential elements (paras. 26–27). The information at this stage does not have to be final, but the summary resettlement plan and/or framework must demonstrate before the first MRM or PSCCM that each element is adequately addressed to the satisfaction of ADB.

34. The resettlement documents are to be developed in consultation with those affected. The documents include a population record of affected people, an asset inventory, landownership, usage and productivity assessments, and data on the

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13 If Appraisal Mission is waived or not required, the satisfactory resettlement plan/framework should be submitted for ADB review and approval prior to loan negotiations.

14 See ADB. Project Administration Instructions. Lotus Notes database. LNADB61.

15 Resettlement costs and implementation are likely to critically affect the overall costs and implementation schedule of the primary investment project.

16 The pre-appraisal population record of affected people, according to their location, is prepared through a count based on village or other local population data or census. In many cases, a full census is not available by MRM, and therefore, an updated resettlement plan will be required after detailed measurement survey and prior to land acquisition/impacts. See para. 44 below.

17 The pre-appraisal asset inventory is a preliminary record of affected or lost assets at the household, enterprise, or community level.
existing economic and social condition of the affected people, including a poverty assessment and a survey of at least 10% of affected people and 20% of seriously affected people, together with local-level impact data. Eligibility criteria and entitlements for compensation and other assistance according to the losses of the affected people must be established on the basis of this information. The planning process also requires consultation with and information dissemination to affected people. A schedule for providing resources and opportunities for reestablishing housing, facilities, networks, incomes, and livelihoods prior to relocation should be included in the resettlement plan.

35. The population record and asset inventory are prepared based on site investigation sufficient to identify titled, legalizable and nontitled affected people. These are essential elements in resettlement planning for establishing scope and quantities and determining the full compensation and resettlement cost. The population records, land assessment, asset inventory, and sample socioeconomic surveys are prepared in consultation with those affected.

36. The resettlement plan must also provide a time-bound action schedule for project activities such as acquisition of land to ensure that affected people are individually compensated and assisted before civil works contracts are awarded or similar milestone events occur. The summary resettlement plan before the first MRM or PSCCM must also be accompanied by tentative cost estimates, and related budget estimates including prices and physical contingencies, and cash flows. The budget must be sufficient to meet the resettlement plan’s activities, according to the established schedules coordinated with construction timelines. It must also contain assurances from the executing agency or project sponsor that sufficient funds will be made available as and when necessary for the efficient and timely implementation of resettlement activities specified in the resettlement plan.

2. Resettlement Framework

a. Sector Loans

37. Sector loans that are likely to involve "significant" resettlement need to submit for approval, before the first MRM or PSCCM, a resettlement framework for the loan as a whole and a summary resettlement plan for each core subproject having resettlement issues. A subproject having significant resettlement must be included among the core subprojects prepared prior to MRM or PSCCM. A "core" subproject is one that is prepared before Board approval and appraised during the ADB appraisal, and the resettlement plan or plans serve as a model for subsequent resettlement planning for other subprojects under the sector loan that will be prepared in accordance with this OM section. Sector projects involving resettlement that is not likely to be significant nevertheless require a short resettlement plan before the first MRM or PSCCM for any

18 Pre-appraisal land assessments record key features of population settlements, and natural land features, together with landownership and usage patterns.

19 While compensation is required prior to dispossession or displacement of affected people from their assets, the full resettlement plan implementation, which may require income rehabilitation measures, might be completed only over a longer period of time after civil works have begun. Affected people will be provided with certain resettlement entitlements, such as land and asset compensation and transfer allowances, prior to their displacement, dispossession, or restricted access.
core subproject identified as involving resettlement; however, if no core subproject has been identified that involves resettlement, only a resettlement framework is required before the first MRM or PSCCM for the sector project as a whole.

38. During implementation, the executing agency or project sponsor prepares each subproject resettlement plan in accordance with the resettlement planning principles set in the involuntary resettlement policy and this OM section, to be submitted for approval to ADB, or to a third party acceptable to ADB, before the award of civil works contracts or similar milestone event that ensures that a subproject does not proceed without an acceptable resettlement plan and corresponding budget. In addition, these conditions include disclosure to affected people, delivery to affected people of compensation and allowances and house reconstruction, prior to their being dispossessed or displaced, as necessary for each subproject resettlement plan to ensure that no subproject proceeds without consultation, disclosure, and replacement of assets prior to the dispossession or displacement of affected people.

39. To facilitate the observance of these conditions, the project ensures that contract schedules and packages consistently match each subproject requiring a resettlement plan. The project also ensures that sufficient resettlement planning and management capacity are provided during project implementation.

b. Other Loans with Subprojects or Components for Later Approval

40. ADB’s portfolio includes other loans with investments, subprojects, or components that may involve involuntary resettlement, that may not be known before appraisal. This may include (i) hybrid loans for which all or part of the impact area cannot be determined before appraisal, due to the undeveloped level of technical design, and/or the need for a clearly defined community process for site selection; and (ii) cases where a project simultaneously entails one or more components that are fully defined before the first MRM or PSCCM (and for which a summary resettlement plan has been prepared, if required) and complementary small, scattered, or networked components entailing minor impacts that can be identified only in connection with detailed engineering and technical design immediately before construction.

41. This type of project loan requires the preparation and approval of a resettlement framework prior to the first MRM or PSCCM and follows procedures similar to those applied to sector loans, except that in the absence of core subprojects, only subprojects or components due for financing during the first year of implementation require the preparation of a resettlement plan acceptable to ADB before the first MRM or PSCCM.

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20 See Section D for a discussion of conditions requiring full or short resettlement plans.
21 Third parties acceptable to ADB may include other multilateral financial institutions having involuntary resettlement policy requirements equivalent to, or exceeding, those of ADB.
22 "Hybrid loans" have features of a regular project loan and a sector loan, such that some subprojects, components, or investments are selected and prepared only after loan approval.
23 An example of this is an urban project with a water treatment plant and a related water distribution system. The impacts caused by the plant will be detailed in one specific resettlement plan to be prepared before the first MRM or PSCCM. A resettlement framework will cover the remaining work on the distribution system, specifying any resettlement-related screening criteria and the requirement for another resettlement plan or plans to be prepared and approved by ADB, or a designated third party acceptable to ADB, before the civil works contracts are awarded or similar milestones are reached.
All other processing and implementation conditions for sector loans are valid also for this type of loan.

**c. Emergency Assistance Loans**

42. However, because emergency assistance loans must be processed quickly, procedures must be flexible. If the IPSA identifies likely involuntary resettlement effects, the completion of standard surveys and consultation requirements based on a feasibility study may not be possible before Board circulation. In such cases, a phased sequencing of preparation to develop a resettlement framework that sets out policy, procedures, and requirements that apply during loan implementation is presented in the RRP for MRM, or, if MRM does not take place, the RRP and legal agreements for Board circulation. In all cases, the RRP must justify the departure from standard procedures as described in this OM section, with reference to the specific circumstances of the individual project and the emergency processing schedule.

**d. Financial Intermediation Loans**

43. ADB assistance through financial intermediaries may involve credit lines or other means whereby investments or operations targeted for ADB financing are to be selected and prepared during implementation. Where such loans may involve involuntary resettlement, ADB requires that, before the first MRM or PSCCM, the financial intermediary or project sponsor will submit for approval a resettlement framework to ADB and, where resettlement is likely to be significant, will assign responsibility for involuntary resettlement planning and implementation. ADB ensures that the financial intermediary or project sponsor screens the investments or subprojects to be financed by ADB and prepares resettlement plans as needed in accordance with the involuntary resettlement policy and this OM section. These are submitted to ADB, or to a third party acceptable to ADB, for approval before civil works contracts are awarded or similar milestone events occur. The conditions for approval of resettlement plans must include consultation, disclosure, and delivery to affected people of compensation, allowances and house reconstruction, prior to dispossession or displacement of affected people, as necessary for each subproject resettlement plan, to ensure that a subproject does not proceed without replacement of assets prior to the dispossession or displacement of affected people.

**G. Participation of Affected People and Resettlement Disclosure**

44. The policy requires that the executing agency or project sponsor disseminates information to and closely consults affected people during resettlement planning and implementation. The consultation is to be carried out as early as possible in the project cycle so that the views of the affected people are taken into account in formulating the compensation and rehabilitation measures. Further consultation also takes place during resettlement plan implementation to identify and help address issues that arise. The public consultation process must be identified in the IPSA as well as described in resettlement plan and framework reports.

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24 See footnote 19.
45. Public disclosure of resettlement plans and frameworks is mandatory. In the case of resettlement plans, resettlement information on compensation and resettlement options, must be disclosed to the affected people before the first MRM or PSCCM, in a form and language that they can understand.\textsuperscript{25} In similar fashion, the detailed resettlement information including measurement of losses, detailed asset valuations, entitlements and special provisions, grievance procedures, timing of payments and displacement schedule must be disclosed to the affected people.\textsuperscript{26} The executing agencies are generally required to approve the posting of the resettlement plan and or resettlement framework, or its summary, for release on ADB’s resettlement website prior to the first MRM or PSCCM. Web posting of resettlement plans and frameworks is mandatory upon Board approval. Relevant information on involuntary resettlement is to be included in the project profile for ADB web site.

H. Initiation, Implementation, Monitoring, and Evaluation

46. To ensure proper and timely implementation of the resettlement plan/framework and adherence to agreed land acquisition and involuntary resettlement covenants, ADB requires, for all involuntary resettlement category A and B projects, that (i) EAs or project sponsors submit quarterly or semiannual progress reports, as deemed necessary by ADB, on implementation of resettlement plans; and (ii) this requirement must be reflected in the loan agreements. Monitoring and evaluation reports are required, preferably from an external monitoring and evaluation agency. These must be reviewed by the resettlement specialist in the operations department that has the responsibility for resettlement supervision, with a copy of the reports and the operations department’s assessment are to be sent to RSES. Grant or loan financing may be used to finance external monitors. Standard project accounts required by ADB and independent audit reports thereon, must include the implementation of resettlement plans. For category A projects, an ADB supervision mission is fielded to reassess involuntary resettlement preparations prior to their implementation. The timing of this assessment must be stated in the project administration memorandum. Implementation of the resettlement plan should be reviewed regularly, including at midterm and project completion. Large-scale resettlement operations should be reviewed semiannually.

47. Completion of Final, Detailed Technical Design during Loan Implementation. Detailed engineering and technical designs, for tendering and/or construction of civil works contracts, may be done after the Board’s approval of a loan. In such cases, after detailed design, to be approved by ADB before civil works contracts are awarded or similar milestone events occur, the resettlement plan must be finalized. The resettlement plan will be disclosed to affected people and submitted to ADB for approval with revised information based on the detailed measurement survey, including full census, final asset inventory and valuation, and final budget.

48. Resettlement Compliance during Loan Implementation. The CCO, supported by RSES, must ensure compliance with the involuntary resettlement policy (i) where a

\textsuperscript{25} This may be in the form of a resettlement information brochure or leaflet, a summary resettlement plan, or a complete resettlement plan to be provided to affected people in a language that they can understand, in an accessible place. The process of disclosures may be synchronized with local legal processes.

\textsuperscript{26} As a guideline, the disclosure should take place as early as possible.
revised resettlement plan, satisfactory to ADB, forms a condition for loan effectiveness or is a dated covenant; (ii) for new, full resettlement plans that are required after Board approval to address involuntary resettlement effects unforeseen at the time of the first MRM or PSCCM; and (iii) for updated full resettlement plans and for full subproject or subcomponent resettlement plans. Resettlement specialists in the operations departments are responsible for approving short resettlement plan updates, short subproject and subcomponent resettlement plans, and any specific resettlement actions to be completed for the award of civil works contracts, civil works contract mobilization, or similar mechanisms that ensure that a subproject does not proceed without replacement of assets before displacement.

49. **Changes in Scope.** A major change materially alters or fundamentally affects the project’s purpose (immediate objectives), components, costs, benefits, procurement, or other implementation arrangements as approved by the Board. All major changes in scope need to be screened by operations departments for resettlement significance, using the involuntary resettlement checklist, and classified in accordance with the appropriate procedures. All proposed changes that are classified as category A require a full resettlement plan and those classified as B will require a short resettlement plan. Depending on circumstances, a prior approved resettlement plan for a category A or B project may be updated to cover the new impacts, and submitted for ADB’s approval.

50. **Unanticipated Resettlement Impacts.** Where unanticipated resettlement impacts become apparent during project implementation, ADB assists executing agencies and other relevant government authorities to assess the significance of the impacts, evaluates the options, and prepares resettlement plans, in accordance with this OM section. Project completion review missions place special emphasis on reviewing project-induced involuntary resettlement impacts, and are expected to make appropriate recommendations to address them. ADB resident missions take on an increasing role in working with DMCs to resolve outstanding resettlement issues.

51. **Completion Reports and Performance Audit Reports.** To ensure proper documentation of the actual involuntary resettlement impacts and the successful implementation of the resettlement plan, the project or program completion report prepared by ADB’s operational departments includes (i) a concise history of the involuntary resettlement aspects of the project and/or program to completion, (ii) an evaluation of the implementation of the resettlement plan and or resettlement framework and involuntary resettlement loan covenants, (iii) an assessment of the executing agencies performance; and (vi) a summary of the external monitoring and evaluation reports. As necessary, a resettlement completion report may be prepared by the executing agency, based on the agreed resettlement planning documents, together with financial audit statements that have been approved by an independent agency. The involuntary resettlement section of the project completion report is based on facts documented in the executing agency’s progress reports, the external agency’s monitoring and evaluation reports, and review missions’ back-to-office reports.

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27 Project administration instruction 5.04 on Change on Project Scope or Implementation Arrangements, updated and submitted for approval.

28 To foster organizational learning and project improvement, ADB’s Operations Evaluation Department prepares project or program performance audit reports, which are independent evaluations and include an analysis of the effectiveness of the involuntary resettlement in achieving the intended objectives. The reports also assess the adequacy of the project completion report’s on involuntary resettlement reporting, and focuses on specific involuntary resettlement issues as documented in the project completion report.
52. **Departmental Responsibilities.** The operations departments and the Private Sector Operations Department, supported by the Regional and Sustainable Development Department, are responsible for policy implementation. At the country level, the country strategy program process is the principal entry point for policy dialogue on each DMC’s specific needs and priorities. The operations departments are responsible for proposing the categorization of all loans in consultation with the Regional and Sustainable Development Department. Final categorization is approved by the CCO. The project teams assist DMCs in involuntary resettlement planning and supervision processes, and resettlement specialists in operations departments’ review of resettlement plans. Quality assurance of projects and programs is undertaken by the project teams. Internal and external resettlement networks facilitate cross-fertilization, knowledge sharing, and dissemination of lessons.

53. **Compliance.** The operations departments are responsible for complying with the policy. ADB’s CCO, supported by the Environment and Social Safeguard Division, is responsible for monitoring compliance with ADB’s safeguard policies, and advising and assisting operations departments. The CCO advises Management on safeguard policy issues and reviews projects’ compliance with ADB’s safeguard policies. For this purpose, questions of interpretation of resettlement terminology used in this OM section will be decided by the CCO.

54. **Monitoring.** Overall performance with regard to ADB’s safeguard policies and procedures is assessed through the compliance monitoring system, which is implemented by RSES.

I. **Borrower’s Responsibilities**

55. The following are essential in the preparation and review of resettlement planning documents.

   (i) All ADB requirements must be met.

   (ii) ADB staff must request the borrower to follow the formats for resettlement planning documents in the ADB-prescribed *Handbook on Resettlement*. Some departure from ADB’s recommended report format may be accepted, if the documents cover all the major elements of planning.

   (iii) In preparing the resettlement planning documents, ADB requires the borrower to take into account the views of affected groups and civil society groups where relevant, including nongovernment organizations.

   (iv) Wherever possible, the borrower will give its final clearance of the resettlement plan or framework before it is submitted to the Board. Where this is not possible, and the EA’s or project sponsor’s clearance has still not been received before the conclusion of loan negotiations, a loan covenant requiring EA’s or project sponsor’s clearance/endorsement of the resettlement-planning document must be included in the loan agreement.
Basis: This OM section is based on OM Section F2/BP and the documents cited therein.


Compliance: This OM section is subject to compliance review.

For inquiries: Questions may be directed to the Chief Compliance Officer, Regional and Sustainable Development Department.
NATIONAL ASSEMBLY

[SUPREME PEOPLE’S ASSEMBLY]

Decision No. 01/SPA, dated August 14, 1991, on the adoption of the Constitution of the Lao People’s Democratic Republic.

Only the title is translated. The full text is published in the Official Gazette special number, dated May 30, 1996, in Lao language.

THE CONSTITUTION OF THE LAO PEOPLE’S DEMOCRATIC REPUBLIC

PREAMBLE

For thousands of years, the multi-ethnic Lao People lived and grewed on this beloved land. More than six centuries ago, during the time of Chao Fa Ngum our ancestors founded the unified Lane Xang country and built it into a prosperous and glorious land.

From the 18th century A.D. onwards, the Lao land had been repeatedly threatened and invaded by outside powers. Our people had united to develop the heroic and unyielding traditions of their ancestors and continually and persistently fought to regain independence and freedom.

Over the past 60 years, under the correct leadership of the former Indochinese Communist Party and the present Lao People’s Revolutionary Party, the multi-ethnic Lao people had carried out a difficult and arduous struggle, filled with great sacrifices, until they managed to crush the yoke of domination and oppression of the colonialist and feudalist regimes, completely liberated the country and established the Lao People’s Democratic Republic on 2 December 1975; thus opening a new era, an era of genuine independence for the country and true freedom for the people.

In the recent years, our people have together implemented the two strategic tasks of safeguarding and building the country, and have initially achieved satisfactory results.

And now in this new period, the society requires that the State must have a Constitution. This Constitution is the Constitution of the People’s Democratic Regime in our country. It recognizes the great achievements gained by our people in the struggle for national liberation and development; it defines the political regime, the socio-economic system, the
fundamental rights and duties of citizens and the system of organisation of the state apparatus in this new period. This is the first time in the history of our nation that the people’s right to mastery is defined in the fundamental law of the nation.

This Constitution is the product of the process of discussion by the people throughout the country. It reflects the long-term aspirations and strong determination of the national community to strive together to fulfill the objective of building the Lao nation into a country of peace, independence, democracy, unity and prosperity.

CHAPTER 1
THE POLITICAL REGIME

Article 1. The Lao People’s Democratic Republic is an independent and sovereign country with territorial integrity covering both territorial waters and airspace. It is a unified and indivisible country belonging to all ethnic groups.

Article 2. The Lao People’s Democratic Republic is a People’s Democratic State. All power is of the people, by the people and for the interests of the multi-ethnic people of all strata in society with workers, farmers and intellectuals as the core.

Article 3. The right of the multi-ethnic people to be the masters of the country is exercised and ensured through the functioning of the political system, with the Lao People’s Revolutionary Party as its leading nucleus.

Article 4. The National Assembly is the representative organ of the people. The election of members of the National Assembly shall be carried out through the principles of universal, equal and direct suffrage, and secret ballot. Voters have the right to propose the dismissal of their own representatives if they are found to be unworthy and lose the people’s confidence.

Article 5. The National Assembly and all other state organizations are established and function in accordance with the principle of democratic centralism.

Article 6. The state protects the inviolable rights and democratic freedoms of the people. All state organizations and functionaries must inform the people of and educate them in the policies, regulations and laws, and together with the people, to implement them in order to guarantee the legitimate rights and interests of the people. All acts of bureaucratism and harassment that can be detrimental to the honour, body, lives, conscience and property of the people are prohibited.

Article 7. The Lao Front for National Construction, the Lao Federation of Trade Unions, the Lao People’s Revolutionary Youth Union, the Lao Women’s Union and other social organizations are the organs that unite and mobilize all strata of all ethnic groups in order to
take part in the tasks of national defence and development; to develop the right to mastery of the people and to protect the legitimate rights and interests of their members.

Article 8. The State pursues the policy of unity and equality among all ethnic groups. All ethnic groups have the right to protect, preserve and promote their fine customs and culture as well as those of the nation. All acts of division and discrimination among ethnic groups are prohibited.

The State takes every measure to upgraded the socio-economic development of all ethnic groups.

Article 9. The State respects and protects all lawful activities of Buddhists and of followers of other religions, mobilises and encourages the Buddhist monks, novices and priests of other faiths to participate in those activities which are beneficial to the country and its people. All acts of fomenting division among religions and among the people are prohibited.

Article 10. The State manages the society by the provisions of the Constitution and the law. All party and state organizations, mass organizations, social organizations and all citizens must comply with the Constitution and the law.

Article 11. The State implements a policy of national defence and security with the participation of the entire people and in all aspects. The national defence and security forces must enhance their loyalty to the country and the people; carry out their duties to safeguard the gains of the revolution, the lives, property and labour of the people; and must contribute to the tasks of national development.

Article 12. The Lao People’s Democratic Republic pursues a foreign policy of peace, independence, friendship and cooperation; and promotes relations and cooperation with all countries based on the principles of peaceful coexistence; respect for each other’s independence, sovereignty and territorial integrity; non-interference in each other’s internal affairs; equality and mutual benefit.

The Lao People’s Democratic Republic supports the struggle of the world people for peace, national independence, democracy, and social progress.
Chapter II
The Socio-Economic System

Article 13. The economic system of the Lao People’s Democratic Republic is a multi-sectoral economy having as objectives the expansion of production and increase of goods circulation, and the transform glean of the subsistence economy into a commodities economy in order to develop the national economic base and improve the material and spiritual living conditions of the multi-ethnic people.

Article 14. The state protects and promotes all forms of state, collective and individual ownerships, as well as the private ownerships of both domestic investors and foreigners who invest in the Lao People’s Democratic Republic.

The State encourages all economic sectors to compete and cooperate with one another in expanding their production and business activities. All economic sectors are equal before the law.

Article 15. The State protects the rights of ownership (right to possess, right to use, right to transfer) and organizations’ and individuals’ right to inherit property. As for the land which is owned by the national community, the State ensures the right to use, transfer, and inherit it in accordance with the law.

Article 16. Economic management is carried out according to the mechanism of the market with the adjustment by the State, and is implemented by the principle of the centralized, unified management of branches at central level in combination with a reasonable delegation of the responsibility to local authorities.

Article 17. All organizations and citizens must protect the environment and natural resources: land, underground, forests, fauna, water sources and atmosphere.

Article 18. The State promotes and advises on the development of economic relations with foreign countries in many forms, on the basis of the principle of respect for each other’s independence, sovereignty, equality, and mutual benefit.

Article 19. The State strives to develop education in combination with raising the new generation to be good citizens. The objectives of the educational, cultural and scientific activities are to augment levels of knowledge, the spirit of patriotism, the spirit of cherishing the People’s Democratic Regime, the spirit of maintaining unity and harmony among the people of various ethnic groups; and to enhance the peoples’ sense of being masters of the country. The State implements a compulsory education system at primary levels. The State authorizes the operation of private schools which utilize the curricula of the State.
The State, together with the people, builds schools at all levels in order to assure a comprehensive system of education, and to pay attention to develop education in the areas where the ethnic minority people reside.

The State develops the fine, traditional culture of the nation in combination with promoting the progressive culture of the world and eliminating any regressive phenomena in the ideological and cultural spheres. The State promotes culture, art, literature and information activities, including in mountainous areas. The State protects the nation’s antiquities and shrines.

**Article 20.** The State strives to expand public health services and authorizes the private sectors to provide medical services in accordance with state regulations. The State promotes the expansion of sports, physical education and tourism and provides care for disabled veterans, families of those who have sacrificed their lives and who have performed good deeds for the nation, as well as for pensioners.

The State pursues a policy which favors mothers and children.

**CHAPTER III**
**FUNDAMENTAL RIGHTS AND DUTIES OF THE CITIZENS**

**Article 21.** Lao citizens are the persons who hold Lao nationality as prescribed by law.

**Article 22.** Lao citizens, irrespective of their sex, social status, education, faith and ethnic group are all equal before the law.

**Article 23.** Lao citizens 18 years of age and over have the right to vote, and those 21 years of age and over have the right to be elected, except for insane persons and persons whose rights to vote and to be elected have been revoked by a court.

**Article 24.** Lao citizens of both sexes enjoy equal rights in political, economic, cultural, social and family affairs.

**Article 25.** Lao citizens have the right to education.

**Article 26.** Lao citizens have the right to work and engage in occupations which are not forbidden by law. Working people have the right to rest, to receive medical treatment in time of ailment, to receive assistance in case of incapacity and disability, in old age and other cases as prescribed by law.

**Article 27.** Lao citizen have freedom of movement and residence as prescribed by law.

**Article 28.** Lao citizens have the right to lodge complaints and petitions and to propose ideas to relevant state organizations in connections with issues pertaining to the rights and interests of collectives or of their individuals.

Complaints, petitions and ideas of citizens must be considered for solutions as prescribed by law.
Article 29. The right of Lao citizens to be secure in their persons and houses shall not be violated. Lao citizens shall not be arrested or searched without warrant or approval by an authorized organization, except in the case as prescribed by law.

Article 30. Lao citizens have the right and freedom to believe or not to believe in religions.

Article 31. Lao citizens have freedom of speech, press and assembly; of associations, and of demonstrations, which are not contrary to the law.

Article 32. Lao citizens have freedom to conduct research, to apply advanced sciences, techniques and technologies; to create artistic and literary works and to engage in cultural activities which are not contrary to the law.

Article 33. The State protects the legitimate rights and interests of Lao citizens residing abroad.

Article 34. Lao citizens have the duty to observe the Constitution and the law, and to implement labour discipline, rules of good conduct in society and the public order.

Article 35. Lao citizens have the duty to pay taxes and duties in accordance with the law.

Article 36. Lao citizens have the duty of defend their country, to maintain security and to fulfill their military obligations as prescribed by law.

Article 37. Aliens and persons having no nationality have the right to enjoy those rights and freedoms protected by the provisions of the laws of the Lao People’s Democratic Republic. They have the right to lodge petitions with courts and other concerned organizations of the Lao People’s Democratic Republic. They have the duty to observe the Constitution and the law of the Lao People’s Democratic Republic.

Article 38. The Lao People’s Democratic grants asylum to foreigners who are persecuted for their struggle for freedom, justice, peace of for their scientific activities.

CHAPTER IV
THE NATIONAL ASSEMBLY

Article 39. The National Assembly is the legislative organ, which has the right to decide the fundamental issues of the nation. It is the organ that supervises and oversees the functioning of the executive and judicial organs.

Article 40. The National Assembly has the following rights and duties:
1. To establish, approve or amend the Constitution;
2. To consider, approve, amend, or abrogate laws;
3. To determine, change, or abolish taxes and duties;
4. To consider and approve strategic plans of socio-economic development and budgets of the State;
5. To elect or remove the President of the Republic and the Vice-President of the Republic on the recommendation of the
6. To consider and approve the appointment or removal of members of the Government on the recommendation of the President of the Republic;
7. To elect or remove the President of the People’s Supreme Court and the Public Prosecutor-General on the recommendation of the National Assembly Standing Committee;
8. To approve the establishment or dissolution of the ministries, ministry-equivalent organizations, provinces and municipalities and to determine the boundaries of provinces and municipalities on the recommendation of the Prime Minister;
9. To decide on granting general amnesties;
10. To decide on ratification or abolition of treaties and agreements signed with foreign countries in accordance with international law and regulations;
11. To decide on matters of war or peace;
12. To supervise the observance of the Constitution and the law;
13. To exercise other rights and execute other duties as prescribed by law.

Article 41. Members of National Assembly are elected by Lao citizens in accordance with the provisions prescribed by law.

The term of office of National Assembly is five years.

The election of a new National Assembly must be held not later than sixty days prior to the expiration of the term of office of the incumbent National Assembly.

In the event of war or any other circumstance that obstructs the election, the National Assembly may extend its term of office but it must carry out an election of a new National Assembly not later than six months after the situation has returned to normal.

Article 42. The National Assembly elects its own Standing Committee which consists of the President, Vice-President and a certain number of members. The President and Vice-President of the National Assembly are also President and Vice-President of the National Assembly Standing Committee.

Article 43. The National Assembly Standing Committee has the following rights and duties:
1. To prepare for the National Assembly sessions and to ensure the implementation by the National Assembly of the program of activity it has set forth;
2. To interpret and explain the provisions of the Constitution and the various laws;
3. To supervise and oversee the functioning of the executive and judicial organs during the recess of the National Assembly;
4. To convene the National Assembly into session;
5. To exercise other rights and execute other duties as prescribed by law.

Article 44. The National Assembly convenes its ordinary session twice a year upon convocation by
the National Assembly Standing Committee.

The National Assembly Standing Committee may, if it deems it necessary, convene extraordinary session of the National Assembly.

**Article 45.** A National Assembly session shall be convened only with the presence of more than one-half of the total number of the National Assembly members.

Resolutions of the National Assembly shall be valid only when they are voted for by more than one-half to the total number of the National Assembly members.

**Article 46.** The organizations and persons that have the right to propose draft laws are as follows:

1. The President of the Republic;
2. The National Assembly Standing Committee;
3. The Government;
4. The People’s Supreme Court;
5. The Public Prosecutor-General;
6. The mass organizations at the central level.

**Article 47.** Any law adopted by the National Assembly must be promulgated by the President of the Republic within thirty days following such adoption. During this period, the President of the Republic has the right to request to reconsider any such law. If the National Assembly affirms its initial decision, the President of the Republic must promulgate the law within fifteen days.

**Article 48.** Questions relating to the destiny of the nation and the vital interests of the people must be submitted for approval to the National Assembly or, between its two sessions, the National Assembly Standing Committee.

**Article 49.** The National Assembly establishes its own Committees to consider draft Laws, draft Decrees and draft Acts for submission to the National Assembly Standing Committee and the President of the Republic; these Committees shall also assist the National Assembly and the National Assembly Standing Committee in exercising the right of supervision over the functioning of the executive and judicial organs.

**Article 50.** Members of the National Assembly have the right to question the Prime Minister or members of the Government, the President of the People’s Supreme Court and the Public Prosecutor-General.

Organs or persons called for questioning must give verbal or written answers before a session of the National Assembly.

**Article 51.** Members of the National Assembly shall not be subject to prosecution or detention without the approval of the National Assembly or, between its two sessions, the National Assembly Standing Committee.

In cases involving gross and urgent offenses,
any organizations detaining a member of the National Assembly must immediately report the detention to the National Assembly or, between its two sessions, to the National Assembly Standing Committee for consideration and decisions. Inquiries and questioning are not valid reasons for causing the absence of a prosecuted member from any session of the National Assembly.

CHAPTER V
THE PRESIDENT OF THE REPUBLIC

Article 52. The President of the Republic is the Head of State of the Lao People’s Democratic Republic. He is the representative of the multi-ethnic Lao people both at home and abroad.

Article 53. The President of the Republic has the following rights and duties:

1. To promulgate the Constitution and the laws that have been duly approved by the National Assembly;
2. To issue Decrees and Acts on the recommendation of the National Assembly Standing Committee;
3. To appoint or remove the Prime Minister and the members of the Government; such appointments and removals must be submitted to the National Assembly for approval;
4. To appoint, transfer or remove the Governors of the provinces and the Mayors of municipalities on the recommendation of the Prime Minister;
5. To decide on the promotion to or demotion from the rank of General Officer in the national defence and the security forces on the recommendation of the Prime Minister;
6. To be the Head of the People’s Armed Forces;
7. To preside over meetings of the Government when necessary;
8. To decide on the conferment of the national gold medal, orders of merit, medals and highest honorific titles of the State;
9. To grant pardons;
10. To order general or partial military conscription and to declare a state of emergency over the country or in any particular locality;
11. To promulgate the ratification or abolition of any treaties and agreements signed with foreign countries;
12. To appoint or recall plenipotentiary representatives of the Lao People’s Democratic Republic to or from foreign countries, and to accept the plenipotentiary representatives of foreign countries accredited to the Lao people’s Democratic Republic;
13. To exercise other rights and execute other duties as prescribed by law.

Article 54. The President of the Republic is elected by the National Assembly with two-thirds of votes of the total members of the National Assembly attending the session. The term of office of the President of the Republic is five years.

Article 55. The President of the Republic may have a Vice-President to assist him and to act on his behalf during his absence.
The Vice-President of the Republic is elected by the National Assembly with the votes of more than one-half of total members of the National Assembly attending the session.

CHAPTER VI
THE GOVERNMENT

Article 56. The Government is the executive organ of the State.

The Government manages in a unified manner the execution of state duties in all fields: political, economic, cultural, social, national defence and security, and foreign affairs.

Article 57. The Government has the following rights and duties:

1. To implement the Constitution and the laws, the resolutions of the National Assembly as well as Decrees and of the President of the Republic;
2. To submit draft laws to the National Assembly; draft Decrees and draft Acts to the President of the Republic;
3. To draw up the strategic plans on the socio-economic development and annual state budgets and submit them to the National Assembly for consideration and approval;
4. To issue Orders and Decisions on the management of socio-economic, scientific and technical fields, national defence and security; and foreign affairs;
5. To organize, guide and control the activities of the managerial organizations of all branches and of local administrative organizations;
6. To organize and control the activities of the national defence and security forces;
7. To sign treaties and agreements with foreign countries and guide their implementation;
8. To suspend or revoke decisions, orders of ministries, the ministry-equivalent organizations, organizations attached to the Government, and local administrative organizations if they are contrary to the law;
9. To exercise other rights and execute other duties as prescribed by law.

Article 58. The Government consists of the Prime Minister, Deputy Prime Ministers, Ministers and Chairmen of the ministry-equivalent committees.

The term of office of the Government is five years.

Article 59. The Prime Minister is appointed by the President of the Republic with the approval of the National Assembly.

Article 60. The Prime Minister is the Head of the Government. He guides and controls the work of the Government; represents the Government in guiding the work of ministries, the ministry-equivalent organizations and other organizations attached to Government; and guides the work of the Governors of provinces and the Mayors of municipalities.

The Prime Minister appoints Deputy Minister and Deputy Chairmen of the ministry-equivalent
committees, Deputy Governors, Deputy Mayors and district Chiefs.

Deputy Prime Ministers are the assistants of the Prime Minister. The Prime Minister may assign a particular Deputy Prime Minister to act on his behalf during his absence.

**Article 61.** The National Assembly may pass a vote of no confidence in the Government or any member of the Government if either the National Assembly Standing Committee or at least one-fourth of the total member of the National Assembly members raise the question.

Within twenty-four hours after the vote of the no confidence in the Government has been adopted by the National Assembly, the President of the Republic has the right to request the National Assembly to reconsider the question. This reconsideration must be held within the forty-eight hours from the first consideration. If a new vote of no confidence is adopted, the Government must resign.

**CHAPTER VII**

**THE LOCAL ADMINISTRATIONS**

**Article 62.** In the Lao People’s Democratic Republic, there are provinces, municipalities, districts and villages.

Provinces and municipalities have Governors and Mayors respectively. Districts have district Chiefs and villages have village Headmen. Governors and Mayors have Deputy Governors and Deputy Mayors respectively. District Chiefs have deputy district Chief as assistants. In densely populated villages, village Headmen have deputy village Headmen as assistants.

**Article 63.** The Governors, the Mayors and the district Chiefs have the following rights and duties:

1. To ensure the implementation of the Constitution and the laws, and to organize the strict implementation of decisions and orders issued by higher levels;
2. To guide and supervise the functioning of all services at all levels within the scope of their responsibility;
3. To suspend implementation or abolish the decisions of all services at their own or lower levels, which are contrary to the regulations and laws;
4. To consider and resolve complaints, petitions and proposals of the people within the scope of their jurisdiction as prescribed by law.

**Article 64.** The village Headmen are responsible for implementing the State’s laws, decisions and orders, for maintaining peace and security of the villages; and for developing the villages in all aspects.

**CHAPTER VIII**

**THE JUDICIAL ORGANS**

**A. THE PEOPLE’S COURTS**

**Article 65.** People’s Courts are the judicial organ of the State consisting of the People’s Supreme Court,
the People’s Courts of provinces, municipalities and districts and military courts.

**Article 66.** The People’s Supreme Court is the highest judicial organ of the State.

The People’s Supreme Court reviews the decisions of the people’s local courts and the military courts.

**Article 67.** The Vice-Presidents of the People’s Supreme Court and the judges of the people’s courts at all levels are appointed or removed by the National Assembly Standing Committee.

**Article 68.** The People’s courts make trials and pass sentence collectively. During the trials and sentence, judges are independent and must act only in accordance with the law.

**Article 69.** Court Proceedings must be conducted in public, except in cases as prescribed by law. The accused persons have the right to defend themselves.

The Board of legal Counsellors have the right to provide legal assistance to such accused persons.

**Article 70.** Representatives of social organizations have the right to take part in court proceedings as provided by law.

**Article 71.** Judgments made by the people’s courts and having become legally effective must be respected by all party, State and social organizations and all citizens. Persons and organizations concerned must strictly implement them.

**B. THE OFFICES OF PUBLIC PROSECUTION**

**Article 72.** The Offices of Public Prosecution consist of the Office of Public Prosecutor-General, the Offices of Public prosecution of provinces, municipalities and districts, and the Office of military prosecution.

The Offices of Public Prosecution have the following rights and duties:

1. To control the correct and unified observance of laws by all ministries, organizations attached to the Government, mass organizations, local administrative organizations, enterprises, state employees and all citizens.
2. To exercise the right of public prosecution.

**Article 73.** The Public Prosecutor-General directs the activities of all Offices of Public Prosecution in the Lao People’s Democratic Republic.

The Deputy Public Prosecutor-General is appointed or removed by the National Assembly Standing Committee.

Public Prosecutors and Deputy Public Prosecutors of provinces, municipalities and districts and the military prosecutors are appointed or removed by the public Prosecutor-General.

**Article 74.** In carrying out their duties, the Offices of Public Prosecution are subject only to the law and
the instructions of the Public Prosecutor-General.

CHAPTER IX
LANGUAGE, SCRIPT, NATIONAL EMBLEM, NATIONAL FLAG, NATIONAL ANTHEM AND CAPITAL CITY

Article 75. The Lao Language and Lao script are the official language and script.

Article 76. The National Emblem of the Lao People’s Democratic Republic is in the form of a circle, with its lower part depicting one-half of a cog-wheel and a red ribbon with the inscription “Lao People’s Democratic Republic”, framed on two sides with crescent-shaped ears of ripe rice with a red ribbon stretched between the middle of the rice ears with the inscription “Peace, Independence, Democracy, Unity, Prosperity”. A picture of “That Luang” is located between the tips of the rice ears. A road, a paddy field, a forest, and a hydroelectric dam are depicted in the middle of the form of a circle.

Article 77. The National Flag of the Lao People’s Democratic Republic is a dark blue background with red borders and white moon. The width of the flag is two-thirds of its length. The area of each of the red borders on each side is one-half of the dark blue area. The area of the white moon is equal to four-fifths of the dark blue area.

Article 78. The National Anthem of the Lao People’s Democratic Republic is “Xat Lao”.

Article 79. The Capital city of the Lao People’s Democratic Republic is “Vientiane”.

CHAPTER X
FINAL PROVISIONS

Article 80. Only the National Assembly of Lao People’s Democratic Republic in session has the right to amend the Constitution.

The amendment to the Constitution requires the votes of approval of at least two-thirds of the total number of the National Assembly members.
PRESIDENT OF STATE


UNOFFICIAL SECTION

Notes and Comments

Notes

The words in [...] are added for better understanding.

Only the title is translated. The full text is published in the Official Gazette special number, dated May 30, 1996, in Lao language.
THE LAND LAW

Adopted by the National Assembly 21 October 2003
Promulgated by the President of the State 5 November 2003
Effective 5 November 2003
(Effective on date of promulgation by the President)

Unofficial Translation by:
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EXECUTIVE DECREE
of the
PRESIDENT
of the
LAO PEOPLE'S DEMOCRATIC REPUBLIC
On the
Promulgation of Amendment of the Land Law

Pursuant to Section VI, Article 67, clause 1 of the Constitution of the Lao People's Democratic Republic on the Promulgation of the Constitution and the Laws adopted by the National Assembly;

Based on the Resolution of the National Assembly of the Lao People's Democratic Republic No. 48/NA, dated 21 October 2003 on the adoption of Amendment of the Land Law;

Based upon the proposal of the Standing Committee of the National Assembly, No. 24/SC, dated 27 October 2003.

The President of the
Lao People's Democratic Republic
decrees:

Article 1: The promulgation of Amendment of the Land Law.

Article 2: This Executive Decree becomes effective from the day of its signature onwards.

Vientiane, Date 05 November 2003

[seal of the President of the Lao People's Democratic Republic]

Khamtay Siphandone
Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

National Assembly  
No. 04/NA  
Date: 21 October  
2003

THE LAND LAW

PART I  
General Provisions

Article 1.  
Function of the Land Law

The function of the Land Law is to establish a regime for the productive administration, preservation and use of land to meet its objectives and according to laws and regulations, contributing to increased national socio-economic development including protection of environment and water territories of the Lao People's Democratic Republic.

Article 2.  
Land

The land of the Lao People's Democratic Republic is the area of land which is located within the territory of the Lao PDR, comprised of the land's surface, subjacent land, mountains and cliffs, islands, including land under water, territorial waters and territorial airspace.

Lao PDR land is a principal national resource which provides a residence and livelihood for Lao citizens, is an important vehicle for production, socio-economic development and national peace and security.

Article 3.  (new)  
Land Ownership

Lao PDR land is the property of the national community as provided in Article 17 of the Constitution which is centrally and uniformly administered by the State throughout the country and individuals, families, and economic organizations are assigned the right to use or lease or grant concession of that land. Armed forces, state organizations, political organizations, Lao Front for National Construction and the mass organizations are assigned the right to use that land. Resident aliens, stateless persons, foreign persons and organization may lease or obtain concession of that land.

Article 4.  (new)  
Promotion of Land Development

The State promotes all socio-economic sectors to contribute in land development by issuing policies, methodologies, and measures such as education and training and the establishment of a fund for the preservation and improvement of land, promotion of investment in labor, materials, capital, technology, infrastructure construction and good management and administration of land in order to sustain land quality and increase the value of land.
Article 5. Protection of the Rights and Benefits of Those Who Have the Right to Use Land

The State protects the legal rights and benefits of those who have received the right to use land to ensure efficiency, peaceful and sustainable land use, while also guaranteeing the rights to preserve, the right to use, the rights to usufruct, the right to transfer, and the right to inherit.

Article 6. Preservation of Land and the Environment

Individuals and organizations have the duty to preserve land in a good condition, without erosion, sinking, degrading, preserve the condition of the land to be suitable for each type of land, and not to diminish the area of each type of land without approval.

The use of land must not create a negative impact on the natural environment or society.

Article 7. Prohibition on Squatting

Illegal squatting occurring before or after the promulgation of the Constitution and this Law is hereby cancelled.

Individuals or organization are prohibited to squat the land, the use of land must be approved by the State.

PART II
Land Administration and Registration

Chapter 1
Land Administration

Article 8. (new) Land Administration Organizations

Land administration organization of Lao PDR consists of:

- National land administration organization;
- Provincial and city land administration organization;
- District and municipal land administration offices;
- Village land administration offices

The Government will determine the roles, the rights and the duties of the land administrative organizations.

Article 9. (new) Land Administration

The State uniformly and centrally administers land throughout the country through the National Land Administration Department whose duties are prescribed in Article 10 of this Law, in coordination with the relevant sectors and local authorities and assigns the administration of sectorial land to the Ministry of Agriculture and Forestry, the Ministry of Industry and Handicrafts, the Ministry of
Communications, Transportation, Posts, and Construction, the Ministry of Information and Culture, the Ministry of Defense, and the Ministry of Security.

Article 10. (new) Rights and Duties of the Land Administration Organizations

The land administration organizations have the following overall rights and duties:

1. Study draft policies, laws, presidential edicts, decrees, rules and regulations related to land management;
2. Survey, measure, allocate and prepare a land use plan at local, provincial and national levels;
3. Coordinate with the relevant sectors and local authorities in land use planning, preservation, development, classification of land, evaluation of land quality, determination of land areas and control land use;
4. Assign the right to use and lease land, and grant concession of the land and withdraw the right to use land;
5. Create a land registration book, valuate land, register the land; issue land titles and collect land statistics;
6. Collect land royalties;
7. Resolve land disputes;
8. Administer state land and protect environment;
9. Establish policies to administer the institution and activities relating to the purchase and sale of rights to use land;
10. Create land information systems;
11. Establish policies and rules to administer entrepreneurs in various fields related to land such as surveyor, valuator, agent or brokers dealing with the purchase and sale of land;
12. Perform other rights and duties as assigned by the Government.

Article 11. (new) Classification of Land into Areas and Types

Land throughout the entire country is classified into areas and types as follows:

1. Classification of land based on areas:
   Plains, plateaus and mountainous areas consist of:
   • urban areas;
   • rural areas;
   • specific economic areas;
   • special economic areas.

2. Classification into types:
   • agricultural land;
   • forestry land;
   • land in water area;
   • industrial land;
   • communication land;
   • cultural land;
   • national defense and security land; and
   • construction land.
Article 12. (new)  Determination of the Area of Each Type of Land

The Government allocates and determines the area of each type of land throughout the country and submits it to the National Assembly for consideration and adoption.

The local administrative authorities determine the area of different types of land within their scope of authority in compliance with the classification of land types by the State and thereafter submit such determination to the high level authorities for consideration and adoption.

Article 13. (new)  Land Leases

The State authorizes Lao citizens to lease state land for a maximum period of thirty (30) years. Such lease may be extended on a case by case basis.

The actual period of land lease varies depending on the nature and the size of activities to be carried out on such land.

The lease of a developed land between Lao citizens depends upon agreements between the parties and must be certified by village authority and the Notary Office and registered with the district and municipal administrative authorities, where the land is located.

Article 14. Transformation of Land Type

The transformation from one type of land to another type of land may be undertaken if it is necessary to use that land for another purpose, without creating any adverse impact on the environment or society. The transformation of land must be authorized by a competent administrative organization.

Chapter 2  Administration of Agricultural Land

Article 15. Agricultural Land

Agricultural land is land allocated for use in plantation, animal husbandry, and agricultural research and includes irrigation land.

Article 16. Administration of Agricultural Land

The Ministry of Agriculture and Forestry administers agricultural land, determines various types of agricultural land, prepares and issues regulations related to the administration, preservation, development and use of such types of land, and submits to the Government for consideration and adoption.
Article 17. (new) Determination of the Scope of the Right to Use Agricultural Land

The State authorizes individuals and families to use agricultural land in accordance with the allocation plan, objectives, for long term productive use within the following limits:

- To grow rice and raise livestock - not to exceed one (1) hectare per one laborer in a family;
- To grow industrial plants and seasonal vegetable farming - not to exceed three (3) hectares per laborer in a family;
- To grow fruit trees - not to exceed three (3) hectares per laborer in a family; and
- The use of denuded land or defoliated land to plant grass for livestock - not to exceed fifteen (15) hectares per one laborer in a family.

In allocating agricultural land for use by individuals, the State will consider on a case by case basis based on the features, size, actual capacity to produce, conditions and local agricultural land allocation plans.

One laborer may receive the right to use many types of agricultural land if such individual has the conditions and capacity to produce.

Individuals wishing to use more agricultural land than what has been allocated to him, may apply for a lease or a concession from the State.

The allocation of agricultural land to an entity for the purpose of production is based on the actual capacity of that organization.

Article 18. (new) Grant of the Right to Use Agricultural Land

The district and municipal administrative authorities consider, decide and assign the right to use agricultural land under their jurisdiction to individuals and organizations by issuing a land certificate. This land certificate shall have a term of three (3) years. If within that period of time, land is used in accordance with the objectives and regulations and there is no objection or claim, or such objection or claim has been resolved, the district and municipal authorities will request the provincial or city land administration organization to issue a land title for long term use.

Chapter 3
Administration of Forest Land

Article 19. Forest Land

Forest land area is the areas covered by forest or land area not covered by forest but which has been declared as forest land by the State as provided in the Forest Law.
Article 20. Administration of Forest Lands

The Ministry of Agriculture and Forestry administers forest land, determines various types of forest land, prepares and issues regulations relating to the administration, preservation, development, and use of the types of land, including the protection of the environment and thereafter submits such to the Government for consideration and adoption.

Article 21. (new) Determination of the Scope of the Right to Use Forest Land

The State authorizes individuals and families to use denuded or defoliated forest land according to their objectives, on a long term and sustainable basis for not more than three (3) hectares per one laborer in a family. Those who need to use forest land in excess of the above shall have the right to request a lease or a concession from the State.

For organizations, approval of forest land area for use shall be subject to the actual production capacity.

Article 22. (new) Grant of the Right to Use Forest Land

The district and municipal administrative authorities in coordination with the village administrative authority considers and makes decision to grant the right to use forest land within their administration to individuals and organizations by issuing certificates. Land certificates have a term of three (3) years. If within that period of time, land use has been in accordance with laws and regulations, and there has been no objection or claim, or such objection or claim has been resolved, a request for a land title for long term use may be submitted to the provincial or city land administration division.

Chapter 4
Administration of Land in Water Areas

Article 23. Land in Water Areas

Land in water areas is land which is under water or is in the area surrounding a source of water: under water land, land surrounding a water source, land adjoining water, land in the middle of water, and land newly emerged, land where water has receded or land arising from the modification or the diversion of a water course.

Article 24. (new) Administration of Land in Water Areas

The Ministry of Agriculture and Forestry administers land in water areas, researches and issues regulations regarding the administration, preservation, development and use of that type of land in coordination with the local administrative authorities where that land is located, and thereafter submits such to the Government for consideration and adoption.

Article 25. Regulation of the Use of Land in Water Areas

The use of land in water areas must comply with the following conditions:
1. To avoid erosion;
2. To avoid interference with water flow;
3. To avoid water becoming shallow or flood;
4. To avoid pollution which is toxic to the water source;
5. To avoid logging and destruction of forests in water source areas; and
6. To avoid excavation of peat and restricted soils. If required then this must be approved by the relevant agency.

Article 26. Use of Land in Water Areas

Village administrative authorities where the land in a water area is located shall research and submit to the district, municipal administrative authorities relative to the transfer of such lands to individuals or organizations to preserve and use as appropriate.

If the land in water area is located within an individual or organization's right to use, if the agency administering water and water resources and the Science, Technology and Environment Organization inspect and see that such land use has no adverse impact on that land area, that land shall remain under such individual or organization for continuing use.

Chapter 5 Administration of Industrial Land

Article 27. Industrial Land

Industrial land is the limit or area of land determined by the state to be the location for plants, factories, residential areas for workers, industrial areas, industrial zones, industrial cooperative, industrial scientific research institution or center, waste water treatment plant, industrial waste disposal area, power source, electrical transmission right of way, power or gas pipe right of way, a water pipe, a mining area and other land used for industrial purposes.

Article 28. Administration of Industrial Land

The Ministry of Industry and Handicrafts administers industrial land, researches and issues regulations regarding the administration, preservation, development and use of industrial land, including preservation of the environment and thereafter submits such to the Government for consideration and adoption.

The administration of land on which there is an electrical transmission line right of way, a power or gas pipeline right of way, a water pipeline, must be coordinated with the communication and transportation, post and construction division and other relevant divisions.

Article 29. Rules related to Industrial Land Use

Individuals and organizations who use industrial land must adhere to the following conditions:

1. To obtain approval from the industry and handicrafts division;
2. To obtain approval from the urban division;
3. To avoid creating damages to others, to the public, or to the environment; and
4. To repair the surface and rehabilitate the land to its original condition once the land is no longer used (for mining project).

Chapter 8
Administration of Communication Land

Article 30. Communication Land

Communication land is land used for roads, curbs, canals, bridge sites, telephone line rights of way, areas for communications stations, airports, ports, goods and passenger vehicle stations, tunnels, railways, warehouse stations for transportation purposes and other land used in communication and transportation works.

Article 31. Administration of Communication Land

The Ministry of Communication Transportation Posts and Construction administers communication land, researches and issues regulations regarding the administration, preservation, development and use and maintenance of communication land and thereafter submits such to the Government for consideration and adoption.

Article 32. Use of Communication Land

The use of communication land must follow specific regulations issued by the relevant agency.

Chapter 7
Administration of Cultural Land

Article 33. Cultural Land

Cultural land is a location for cultural heritage related to historical traces, antique articles, venerable items, temples, the natural panorama, cultural constructions and other locations determined by the State as cultural and tourism land.

Article 34. Administration of Cultural Land

The Ministry of Information and Culture administers cultural land throughout the country, researches and issues regulations regarding the administration, preservation, development and use of cultural land, and thereafter submits such to the Government for consideration and adoption.

Individuals or organizations who use cultural land must comply with regulations regarding the administration, use, and preservation of cultural land.
Chapter 8

Administration of Land for National Defense and Security

Article 35. Land for National Defense and Security

Land for national defense and security is land used for the purposes of national defense and security works: military bases, offices, residences, schools and army and police training fields, large artillery fields, air fields and army boat docks, warehouses, hospitals, plants, factories, army and police rest and relaxation areas and other land used in national defense and security.

Article 36. (new) Administration of Land for National Defense and Security

The Ministry of Defense and the Ministry of Security administer research and issue regulations regarding the administration, preservation, development and use of land for national defense and security, which are under their administration, and thereafter submits such to the Government for consideration and adoption.

Article 37. Use of Other Types of Land for National Defense and Security

When necessary, the departments responsible for national defense and security may use other types of land whether belonging to an individual or organization in national defense and security activities with the approval of the Government.

At the end of land use, such land must be returned to its original owner. If such use caused damage to the person who has received the right to use the developed land, there should be consideration of reasonable compensation for such damage.

Chapter 9

Administration of Construction Land

Article 38. Construction Land

Construction land is land which has been determined to be used for residences, plants, factories, offices, and public sites.

Article 39. (new) Administration of Construction Land

The National Land Administration Organization administers construction land, researches and issues regulations regarding the administration, preservation, development and use of construction land and thereafter submits such to the Government for consideration and adoption.

Article 40. Types of Construction Land

Construction land is divided into the following types:

- Construction land for public use;
• Construction land for residences;
• Construction land for factories and plants;
• Construction land for offices.

Construction land for public use is the land used for the benefit of the public such as: parks, schools, hospitals, markets, children playgrounds, sport fields, etc., which are used by the public.

Construction land for residences is land used for building residences for individuals and families.

Construction land for factories and plants is land used for industrial production and processing.

Construction land for offices is land used for the purposes of building offices of the government, enterprises, embassies or international organizations.

The allocation of construction land must comply with the city plan and follow the proportion allocated to each type of construction land.

**Article 41. Rules related to the use of Construction Land**

The State must preserve construction land for public use to serve the public interest. If there is a change in the purpose of the use of that land, such land must be used for the public interest as well and must be approved by the relevant agency.

The use of construction land shall not affect the interests of others and must ensure rights of way. All construction activities must be approved by the urban planning agency, must strictly adhere to urban planning regulations, must obtain approval from the relevant agency, and must meet all technical standards while also protecting the environment.

**Article 42. Determination of the Scope of the Right to Use Construction Land**

The State authorizes individuals and families to use construction land consistent with the objectives, for peaceful, long term, and productive use in an amount not exceeding eight hundred (800) square meters per each person in a family.

The authorization to organizations to use construction land area depends on their actual capacity.

**Chapter 10**

**Land Registration**

**Article 43. (new) Land Registration**

Land registration is to certify the legal use of land to individuals and organization to avoid fraud and to facilitate the management and protection of land uniformly throughout the country.

In registering a land, information related to such land such as name and address of the person who has the right to use the land (name of the spouses in case of conjugal property), type of land, extent and areas, method of acquisition and location of the land must be recorded in a Land Registration Book.
Article 44. Forms of Land Registration

There are two (2) forms of land registration, such as:

- The systematic registration of land; and
- The registration of land by request.

Systematic land registration is the registration of land without request. This is done systematically in an area where there is a need for allocation and division of areas and types of land for administration.

The registration of land by request is the registration of land which is done according to an individual’s or an organization’s request to certification their right to use the land.

Article 45. (new) Application to Register Land

Individuals or organizations seeking to register land must submit an application to register with the land administration division of provinces, the capital city through the village administrative authorities and the land administrative unit of district, municipality.

Application for land registration consists of:

1. A letter indicating the method of land acquisition which could be by allocation by the state, inheritance or transfer;
2. Certificate of land use in the case of agricultural land and forestry land;
3. Certificate of Land Guarantee from the original Land Owner or the administrative authority where the land is located;
4. Other necessary documents.

Article 46. (new) Verification of the Application Requesting Land Registration

When the application requesting land registration reaches the land administrative unit of district, municipality, such unit must verify the data provided in the request to make sure it complies with the law by coordinating with the village administrative authorities where that land is located. Within 30 days, the land administrative offices of district, municipality must reply to the applicant.

Once the data has been verified and found to be correct and in compliance the laws, officers from the land office must measure the land and create a map to be attached to the application documents for submission to the land administrative divisions of provinces, city for consideration and registration.

Article 47. (new) Land Registration Book

The Land Registration Book is a book used to record in chronological order the registration of land the first page of the Registration must be signed and sealed by the Director of the National Land Administration Organization with running numbers and a seal on each page.

The Land Registration Book must have the following main contents:
1. Name and surname of individuals or organizations who have received the right to use land;
2. The date, month, year of birth, nationality, profession and present address of the person who has the right to use land;
3. Name of father and mother of the person who has received the right to use land;
4. Number of land title;
5. Number of the land map;
6. Limits, area and land type;
7. Land map, and
8. Land title number

Article 48. Land Certificate

Land Certificates are official documents which certify the right to temporarily use and possess agricultural or forest land issued by the administrative authorities of districts, municipalities to individuals or organizations who have the right to use that land.

Individuals and organizations who have received Land Certificates are entitled to give such land as inheritance within the timeframe on such certificate, but are not entitled to transfer, to use as capital contribution, to use as security, or to lease it.

Article 49. (new) Land Title

A Land Title is the sole evidentiary document related to the permanent right to use land of which only one (1) copy is taken from the Land Title Book for the land owner to hold as long term evidence until there is a change prescribed by law.

Before issuing a Land Title, the relevant office must make a public notice at the land administration office, the administrative office of districts, municipalities and the village administrative office, the place where the land is located, issue a notice through the State mass media, publish in the newspaper and declare by radio broadcasts or releases on television based on actual conditions within 90 days from the date of signing such public notice. If within that period, there is no objection or such objection has been resolved, then a Land Title will be issued to the person who has received the right to use land.

Article 50. (new) Issuance of a Copy of Land Titles (Substitute for Title)

In the case a Land Title is lost or is destroyed, but there is evidence justifying the land title the land administrative divisions of provinces and city shall issue a copy of the Land Title to the individual or organization requesting it.

If the Land Title which is so lost or destroyed has left no trace of evidence substantiating that it is that relevant Land Title, before issuing of a copy of that Land Title, there must first be a decision of the local people’s courts where that land is located.

Issuance of Land Title copies in all cases must be declared to the public thirty (30) days in advance according to the regulations.
Article 51. (new) Legal Registration related to Land

The legal registration related to land is the recording of all activities related to changes in the right to use land into the Registration Book at the land administration offices of district, municipalities as assigned by the land administration divisions of the provinces, city for monitoring the circumstances of changes to that land.

PART III
Rights and Obligations of Those Using Land

Chapter 1
Rights and Obligations of Lao Citizens related to Land

Article 52. Acquisition of the Right to Use Land

Individuals or organizations will receive the right to use land based upon any of the following:

1. State grant;
2. Transfer; and
3. Inheritance.

Article 53. (new) Rights of the Person who has Received the Right to Use Land

Those who have received the right to use land have rights as follows:

- Right to protect land;
- Right to use land;
- Right to receive the usufruct from the land;
- Right to transfer the right to use land; and
- Right to inherit the right to use land.

Article 54. Right to Protect Land

The right to protect the land is a right granted by the State to individuals or organization to protect the land for use for a specific objective.

Article 55. Right to Use Land

The right to use land is the right to use land for a purpose according to the State allocation plan to meet the needs of the person who has received the right to use land.

Article 56. Right to Receive Usufruct of the Land
The right to receive usufruct of developed land is the right to enjoy usufruct or income from the land belonging to a person who has received the right to use such as from leasing the land, from contributing it as capital, and using the developed land as security.

**Article 57. (new) Right to Transfer the Right to Use Land**

The right to transfer the right to use land is the right to grant the use land to another person through transfer, grant or exchange.

**Article 58. (new) Right to Inherit the Right to Use Land**

The right to inherit the right to use land is the right to use developed land inherited by husband or wife, children, grand children, father or mother or close relatives according to the Law after the death of the person who had received the right to use land.

In case the area of inherited land and the land being used exceed the area allocated for a certain type of land prescribed by the law, Article 86 shall apply.

**Article 59. Rights of State and Political Organizations, National Front for Construction, Mass Organizations and State Economic Organizations**

State and Political Organizations, National Front for Construction, Mass Organizations and State Economic Organizations which have been granted the right to use land must only protect and use such land. They do not have the right to transfer, lease, give concession, use as capital contribution, or use as security.

**Article 60. Obligations of Land Users**

Those who use land have the following obligations:

1. Use the land in accordance with its objectives;
2. To not cause a negative impact to the condition of the land, to not cause adverse impacts upon the natural or social environment;
3. To not violate rights and interests of others;
4. Adhere to irrefutable circumstances (Rights of ways) as provided for in the laws;
5. Pay land fees;
6. Comply with financial obligations such as land tax, tax on transfers and assignments, income taxes from leases, inheritance taxes, fees for change of names, fees for legal registration related to land in due time by the user of land, and
7. Comply with other regulations regarding land.
Article 61. Irrefutable Circumstances (Right of way)

Individuals or organizations who are surrounded by other person’s land access to road are entitled to request a right of way from the person who has received the right to use land which is closest to a road. The person who has received the right to use land who is so requested must allow a right of way where he views appropriate and has the right to request compensation for damage to his crops, items built upon the land, or developments where that right of way will cross over.

In the case of laying electricity lines, telephone lines, digging of canals, laying of water pipes or municipal water pipes, etc., across the land of a person who has received the right to use land which causes damage to trees, crops, or items built, that individual has the right to request damages arising from that act. If the person giving the right of way has already received a benefit, then no further damages shall be calculated, except if those damages are substantial. In that case, a reasonable damage calculation shall be made.

Article 62. (new) Loss of Right to Use Land

A person who has received the right to use land will lose that right in the following cases:

1. Use of State granted land inconsistent with its contemplated purpose;
2. Continuous failure to pay land tax for three (3) years after warning;
3. Failure to use land according to the agreement and the Land Law;
4. Those adjudicated by a court as having lost their rights.

Article 63 (new). Termination of Rights to Use Land

The right of an individual or organization to use land shall terminate in any of the cases below:

1. Voluntary forfeiture of the right to use land;
2. State withdraws and takes the land back for use in the public interest;
3. Transfer the right to use land to another person;
4. Death without successor.

Chapter 2
Rights and Obligations of Resident Aliens, Stateless Persons and Foreign Persons Related to Leasing and Granting Concession of Land

Article 64 (new). Leasing or Concession of Land of Resident Aliens, Stateless Persons and Foreign Persons

Resident aliens, stateless persons, foreign persons and their organizations of those persons and foreign persons living, investing and conducting legal activities in Lao PDR may lease or request for concession of land from the State.

Resident aliens and stateless persons and their organizations who wish to lease developed land from Lao citizens must first receive approval from the provincial and city administration authorities where that land is located.
Foreign persons and their organizations who wish to lease developed land from Lao citizens must obtain approval from the National Land Administration Organization based on the recommendations of provincial and city administrative organization where that land is located.

Article 65. (new) Term of Lease or Concession of Land

The term of land lease or concession from the State to resident aliens, stateless persons and their organizations shall be subject to the characteristics, size, and conditions of the activities, but at most shall not exceed thirty (30) years and may be extended on a case by case basis by Government approval.

The term of leases for developed land by resident aliens, stateless persons and their organizations from Lao citizens shall not exceed a maximum of twenty (20) years and may be extended based on agreement of the parties with the consent of the provincial and city administrative authorities where the land is located.

For foreign persons who invest in the Lao PDR, the lease or concession term from State shall be subject to the features, size and conditions of the activity or project, but shall not exceed a maximum of fifty (50) years and can be extended on a case by case basis according to Government agreement.

For foreign persons who invest in the Lao PDR, the lease term from Lao citizen shall be subject to the features, size and conditions of the activity or project, but shall not exceed a maximum of thirty (30) years and can be extended on a case by case basis based on agreement of the parties with the approval of the National Land Administration Organization upon recommendation of provincial, city administrative authorities.

For specific economic zone and special economic zone, the maximum lease or concession term of the land shall not exceed seventy-five (75) years and may be extended on a case by case basis by approval from the National Assembly.

Leases or concession of land area over ten thousand (10,000) hectares must be approved by the National Assembly.

The determination of actual lease or concession term shall be subject to the features, size and conditions of each activity.

Embassies or international organizations which need to use land in the Lao PDR, may lease, exchange or transfer by agreement between the Government of the Lao PDR and the Government of the relevant country. In such cases, the lease term shall not exceed ninety-nine (99) years.

Article 66. (new) Rights to Receive usufruct from Lease or Concession of Land of Resident Aliens, Stateless Persons, Foreign Persons and their Organizations

Resident aliens, stateless persons, foreign persons and their organizations who have leased or obtained concession from the state in compliance with the Laws of the Lao PDR shall have the following rights:
1. Sell asset owned by them which are related to the lease or concession agreement. However, the State has a priority to purchase such assets;
2. Use asset owned by them related to the lease or concession agreement for security with a bank or other financial institutions which duly operate in accordance with Laws in Lao PDR. For fixed asset an approval from the government is required;
3. Sublease the right to use land, but must be approved the State and the sublease shall not exceed the term prescribed in the master lease agreement;
4. Inherit the lease or concession agreement in accordance with the term of the agreement;
5. Use the land lease or concession agreement for the purposes of joint venture with another person, but this must be approved by the State first.

The rights indicated above are also applicable to the lease by resident aliens, stateless person, foreign persons and their organizations from Lao citizen

Article 67. (new) Obligations of Resident Aliens, Stateless Persons and Foreign Persons and Their Organizations related to Land Leases or Concession

Obligations of resident aliens, stateless persons, foreign persons and their organizations related to land leases or concession are as follows:

1. Use land in accordance with its objectives;
2. Do not create damage to the quality of the land, do not create adverse impact on the natural or social environment;
3. Do not violate the rights and interests of others;
4. Adhere to irrefutable circumstances as provided for in the law;
5. Pay land lease or concession and other land-related fees;
6. Fully comply with regulations and conditions regarding land lease or concession.

Chapter 3
Compensation for Damages

Article 68. Causes for Compensation of Damages

There are three (3) types of causes for compensation of damage as follows:

1. Damage due to a violation of laws and regulations;
2. Damage from irrefutable circumstances; and
3. Damage from the return of land

Article 69. Compensation for Damage Due to Violation of Laws and Regulations

Individuals or organizations who use land that cause damage to others or to the public due to a violation of laws and regulations must make compensation for damages which arise from their acts.
Article 70. Compensation for Damages from Irrefutable Circumstances

Individuals or organizations who have received the right to use land from irrefutable circumstances of others who have reserved a right of way or a water ditch for itself which causes the crops, constructed items of others or of the public to be damaged, that individual and organization must make reasonable compensation for that damage.

Article 71. (new) Compensation for Damages Arising From the Return of Land

When it is necessary to use an individual's or and organization's land for the public interest, the State will take the land back but must make appropriate compensation for damages to the relevant person.

To ensure that the return of land to the State is properly compensated land shall be reserved in the proportion of five (5%) percent of the total land of the village, district, municipality, province, or city.

In case when the reserved land is not yet used such land may be temporary leased to individuals or organizations.

Article 72. Determination of Damages

In determining damages, a committee comprised of representatives of interested parties will assess and determine the value of the damages.

Chapter 4

Land Granted by Administrative Authorities to the People during the Struggle for Liberation and Land of those Who Abandoned the Country and Fled Abroad

Article 73. (new) Land Granted by Administrative Authorities to the People during the Struggle for Liberation

The State does not acknowledge the claim for the return of land which administrative authorities have granted to the people during the period of the struggle for liberation.

Article 74. Land of those Who Left their Homes during the Period of the Struggle for Liberation

The State does not acknowledge claims for the return of land which the owner has abandoned during the period of the struggle for liberation.

Article 75. Land Granted as Common Property

The State does not acknowledge claims for the return of land of individuals and organizations who had given up their lands as common property either during the period of the struggle for liberation or during the present.

Article 76. Land of those who Fleed Abroad
The State does not acknowledge claims for the return of land by those who have fled abroad.

PART IV
Land Use Inspection

Article 77. Land Use Inspection

Land use inspection is the monitoring of preservation, development and use of land by individuals and organizations to ensure compliance with objectives, laws and regulations and to ensure efficiency.

Article 78. (new) Land Use Inspection Agency

The inspection of each type of land use for compliance with objectives and laws and regulations is the duty and responsibility of the agency administering the relevant type of land as provided for in Article 9 of this Law.

The national land administration organization inspects land grants, land leases or concession and land registrations.

Article 79. Rights and Duties Related to Land Use Inspection

Land Administration Organizations have the following rights and duties related to land inspection:

1. Demand necessary documents related to inspection from individuals or organizations;
2. Inspect the location of the land;
3. Give guidance to land users;
4. Order a suspension or a temporary cessation of activities related to improper land use;
5. Request the relevant agencies to consider withdrawal of land use rights;
6. Exercise other rights and duties related to the inspection of land use.

PART V
Resolution of Land Issues, Policies toward those who are Productive and Measures against Offenders

Article 80. (new) Resolution of Land Issues which are of an Administrative Nature

Resolution of land issues which are of an administrative nature such as: unauthorized land use, use of land not in compliance with its objectives, failure to use land according to laws and regulations, failure to use land within a prescribed time after obtaining the land, failure to pay land taxes, duties, or fees according to regulations as provided and other land issues which are of an administrative nature. The relevant land administration organization in coordination with the administrative authorities where the land is located must resolve such land issues.

If the concerned land user is dissatisfied with the resolution, they shall have the right to appeal to the next higher level authority for resolution.
Article 81. (new) Resolution of Land-Related Issues which are of a Civil Nature

Disputes related to land which are of a civil nature: inheritance of developed land, transfer of the right to use and other civil contracts related to land must be handled by the people’s court in accordance with the laws and regulations.

In the resolution of disputes related to land which are of a civil character, the village administrative authority where that land is located shall first conduct mediation. If no agreement can be reached a request may be submitted to the administrative authorities of districts, municipalities for further mediation. If no agreement is reached, the parties may bring the case to the people’s courts.

Article 82. Policies towards those who are Productive

Individuals or organizations who legally use land, effectively protect, preserve and productively develop land shall receive commendations, shall receive facilities in leasing additional land or in obtaining concession and other incentives as determined by the Government.

Article 83. Measures against Offenders

Individuals or organizations which use land in violation of the land laws and regulations, cause damage to the public, the environment, property, health or the lives of others shall be fined or be subject to criminal sanctions according to the seriousness of the case and should compensate for the damages caused.

In addition to the major penalties referred to above, offenders may be subject to additional sanctions such as: withdrawal of Land Certificates, Land Titles, or other permits related to the right to use land.

Article 84. Criminal Measures

In the performance of works related to land, individuals who violate the laws and regulations such as: abuse of title and position, abuse of authority, accepting bribes, falsifying documents for personal benefits, causing damage to the interests of the State, cooperatives or other individuals, shall be subject to criminal sanctions and must compensate for damages.

PART VI
Final Provisions

Article 85. (new) Implementation

The Government of the Lao People's Democratic Republic shall have the duty to issue a decree and detailed regulations for the implementation of this Law and must conduct systematic inspections related to land throughout the country and more specifically to inspect the method of acquisition of the right to use land, the size of the land, and land use.

Article 86. (new) Timeframe for Resolution of Problems related to Land
Lao citizens who properly and legally held land previously but who have an area of land in excess of the area as provided in Article 17, 21 and 42 of this Law must comply with the Land Law within a period of three (3) years from the date of official notice regarding resolution of the excess of land issued by the Government. If the concerned individuals wish to continue to use such land, they shall be subject to the duties which are higher than the usual rates. Otherwise such individuals shall no longer have the right to use such excess land.

Resident aliens, stateless persons, and foreign persons and their organizations who had previously held land, must comply with the provisions of this Law within a period of three (3) years from the date of official notice regarding resolution of the excess of land issued by the Government. Beyond this period, concerned parties shall lose their rights to use such land. If they wish to continue to use, they will have priority in their request to lease or to obtain concession from the State.

In case of embassies and international organizations, the Government will decide.

**Article 87. Effectiveness**

This Land Law is effective from the date the President of the Lao People’s Democratic Republic issues a Presidential Decree promulgating it.

This Land Law supersedes the Land Law No. 01-97/NA, dated 12 April 1997. All regulations which conflict with this Law shall be revoked.

President of the National Assembly

[seal and signature]

Samane Vignaket
THREE NEW MINISTERIAL DIRECTIONS:

- Land Parcel Registration System (996/MoF)
- Systematic Adjudication (997/MoF)
- Sporadic Adjudication (998/MoF)

Technical Assistance Report No. A10

JUNE 1998

BHP
LAO PDR
LAND TITLING PROJECT

REGULATIONS ON LAND ADJUDICATION
AND LAND REGISTRATION

To further strengthen the legal framework for land titling and land registration the Land Titling Project developed 3 new regulations which were signed into force on 24 June 1998 by the Minister of Finance. These regulations are given in this document in their English language version;

- Ministerial Direction on Land Parcel Registration System (MD 996/MoF)
- Ministerial Direction on Systematic Adjudication of Land Use Right (MD 997/MoF)
- Ministerial Direction on Sporadic Adjudication of Land Use Right (MD 998/MoF)

The regulations contained in this document concern the process of First Registration of land parcels and the subsequent keeping of the land registration system up to date as sales, transfers sub-divisions, mortgages and other transactions occur. All 3 regulations are concerned with land title as the highest evidence of land use right.

Land Adjudication involves the collection of all relevant details concerning each land parcel, including adjudicating and officially recognising the rights of the owner of the land use right. The process is undertaken in two ways:

- Systematic adjudication. This entails a systematic survey for an entire area under the land titling project. All parcels in the designated area are included in the adjudication process.

- Sporadic adjudication. This is similar to systematic adjudication but is initiated by a request made by the owner of land use right. Sporadic adjudication can only be undertaken in designated areas, which are not covered by systematic adjudication or where the land parcel was not registered during systematic adjudication.

The Regulations number 997 and 998 deal with each of these adjudication methods respectively.

The new Regulation on Land Parcel Registration System was first drafted during the pilot project and was reviewed by a DOLHM committee in mid 1997. It was further revised during the first year of the main land titling project, to be compatible with the terms and meaning of the Land Law, and to reduce overlap with the new Regulations on Land Adjudication.

Systematic adjudication has been undertaken for a period of approximately two years pursuant to Ministerial Direction No. 990/MoF dated 27 September 1995 titled “Provisional Ministerial Direction on Adjudication of Land Possession and Use Right”. The new Regulation on Systematic Adjudication has been developed to replace the 1995 Regulation and takes account of the practical experience in lessons learnt in adjudication of land rights over that period.
The new regulation on Sporadic Adjudication for the most part mirrors the provisions for systematic adjudication. However, variations are made to allow for application by the owner of the land use right and publicity of the method of application, more comprehensive notice requirements and also allows for survey definition of parcels where there is no Cadastral map.

The three new regulations were developed by cooperation between DOLHM and the BHP Technical Assistance team to the Land Titling Project and with consultation with officers from the Prefecture and District land offices, senior adjudication staff, and with the World Bank.
(996/MoF)
Land Parcel Registration System
MINISTERIAL DIRECTION
ON LAND PARCEL REGISTRATION SYSTEM

- With reference to the Land Law, No.01/97/NA, dated 12/04/97;
- With reference to Law on Ownership, No.01/90/NA, dated 27/06/90;
- With reference to Law on Contract, No.02/90/NA, dated 27/06/90;
- With reference to Law on Inheritance, No.03/90/NA, dated 27/06/90;
- With reference to Law on Security of the Contract, No.07/94/NA, dated 14/10/94;
- With reference to Prime Minister Decree, No.104/PM, dated 06/07/93 on the Setting-up of the Ministry of Finance;
- With reference to Prime Minister Decree, No.52/PM, dated 13/03/93 on Registration of Documents;
- With reference to Prime Minister Decree, No.191/PM, dated 10/11/94 on the Collection of Land Title Fees;
- In order to establish and regulate the running of a Land Parcel Registration System and to promote the development of highly effective land economy.

The Minister of Finance takes the following decisions:

PART I
GENERAL PRINCIPLES

Article 1 Purposes

The objectives of this regulation on the establishment and running of the Land Parcel Registration System are as follows:

1. To give authorisation for the establishment of the Land Parcel Registration System and to provide uniform principles and implementing methods concerning the running of the Land Parcel Registration System, assignment of land use right, the recording of under rights in
respect of land, land parcel subdivision, land parcel consolidation and other administrative matters.

2. To allow land to be managed according to the socio-economic development plan.
3. To manage the Land Parcel Registration System up-to-date according to changes.
4. To increase economic development by improving the base for sustainable socio-economic development and mobilising internal resources.

**Article 2 Nature of the Land Parcel Registration System**

The Land Parcel Registration System is an official system for recording and maintaining up to date information about land parcels, such as: location, boundaries, land use rights and under rights. The Land Parcel Registration System provides security to the owners of land use rights by officially recognising their rights. The information contained in the Land Parcel Registration System is a valuable national resource which can be used by all sectors of the economy to manage and deal with land more efficiently.

The records of the Land Parcel Registration System are comprised of the Land Register Book, Land Parcel Register Index, Land Title and Provisional Land Certificate, Cadastral Map, Individual Land Parcel Survey Plan and Land File. These records are managed by the Office of Land and Housing Management at the provincial, municipal and special zone level. The Department of Land and Housing Management provides guidance on all aspects of the Land Parcel Registration System.

The Land Parcel Registration System has two distinct stages. The first stage concerns registration of land parcels. The second stage concerns registration of documents concerning land parcels and registration of land parcel subdivision and land parcel consolidation.

Registration of land parcels is the process of creating and maintaining an up to date record of all relevant details concerning each land parcel. It commences with identifying each land parcel, allocating a unique identification number to each land parcel, establishing the location of land parcel boundaries, investigating, adjudicating and officially recognising the rights of the owner of the land use right and the under rights of any other person. A permanent record is kept in the Land Parcel Registration System and a Land Title or Provisional Land Certificate is issued and held by the concerned owner of the land use right.

Registration of documents concerning land is the process of making a record in the Land Parcel Registration System of economic relations between persons with land use right as they occur, such as: assignment, inheritance, leasing, giving land as guarantee, etc. The process involves checking the legality of each document and then recording a summary of the details of the document in each of the relevant component parts of the Land Parcel Registration System, such as: Land Register Book, Land Title or Provisional Land Certificate, Land File.

Registration of land parcel subdivision and land parcel consolidation is the process of creating new land parcels by means of making an Individual Land Parcel Survey Plan for each new land parcel and then recording the new land parcel in the relevant component parts of the Land Parcel Registration System such as: Cadastral Map, Land Register Book, Land Title, Provisional Land Certificate, Land File.
Article 3 Terms
1. The term used in this Ministerial Direction will mean something which is large or small in number, such as: certain individual would mean one individual or many individuals.
2. The term “person” may include physical person and juridical person.
3. The term “under right” is a name which includes all rights which can be assigned by the owner of land use right to another person for a limited time, such as mortgage, lease, occupation right, usufruct right which is not a permanent right and definite assignment.

PART II
CREATION OF THE LAND PARCEL REGISTRATION SYSTEM

Article 4 Authority to Create the Component Parts of the Land Parcel Registration System

The Department of Land and Housing Management will direct the chiefs of the Office of Land and Housing Management at provincial, municipal and special zone level to implement the standard Land Parcel Registration System for the province, municipality or special zone. To achieve this objective, they will create the following component parts of the Land Parcel Registration System:

1. **Land Register Book**
   A book which contains information regarding each land parcel, such as: the location, Land Title identification number, Provisional Land Certificate identification number, the unique land parcel identification number, the identity of the owner of land use right and under rights. This book is called the “Land Register Book”. The Land Register Book is the central repository of information and it is the primary component part of the Land Parcel Registration System. A new Land Register Book is to be opened for each village. The Land Register Book will be in the form as directed by the Director of the Department of Land and Housing Management.

2. **Land Parcel Register Index**
   A Land Parcel Register Index is an index which contains a summary of the essential land parcel identification information for all the land parcels, such as: Land Register Book and sheet number in each village locality, the Cadastral Map number and land parcel number and details of subdivision and consolidation of parcels. One set of index entries will be made for each village where the Land Title is issued. This Index is called the “Land Parcel Register Index”. The Land Parcel Register Index assists in proper management and efficient utilisation of the Land Parcel Register System.

3. **Cadastral Map**
   A Cadastral Map is a map drawn to scale which shows land parcels in a particular area, such as: land parcel numbers, location of land parcel boundaries, roads and waterways. This map is called the “Cadastral Map”. The Cadastral Map is prepared to a technical standard using
ground survey, aerial photograph methods or other appropriate methods as directed by the Director of the Department of Land and Housing Management.

4. **Land Title**

The Land Title is an official document issued for the land parcel to the owner of the land use right. It shows the information contained in the Register Book for the concerned land parcel. This document is called the “Land Title”. The Land Title is evidence that the person named in the Land Title is legally entitled to the land use right.

5. **Provisional Land Certificate**

The Provisional Land Certificate is an official document issued for the land parcel to the owner of the land use right where some of the information is uncertain and a Land Title cannot be issued. It shows the information contained in the Register Book for the concerned land parcel and contains an additional statement which specifies the information which is uncertain, either as to the location of the land parcel boundary or the identity of the owner of the land use right which cannot be proven completely or the existence of under rights that are unclear.

The Provisional Land Certificate is evidence that the person named in the Provisional Land Certificate is legally entitled to the land use right until proven otherwise.

6. **Individual Land Parcel Survey Plan**

A map which shows survey and other information concerning individual land parcels, such as: land parcel number, location of land parcel boundaries, lengths of land parcel boundaries, location of boundary markers, identification of adjoining land parcels, adjacent roads and waterways. This map is drawn to an appropriate scale and is called the “Individual Land Parcel Survey Plan”. The Individual Land Parcel Survey Plan is used to establish and record the location of boundaries of an individual land parcel.

7. **Land File**

A file to hold all documents, reports, maps and any other items which affect or concern an individual land parcel. This file is called the “Land File”. It is used to efficiently store documents concerning an individual land parcel.

**Article 5 Creation of Other Necessary Parts of the Land Parcel Registration System**

To assist in the efficient administration of the Land Parcel Registration System, the chiefs of the Office of Land and Housing Management at provincial, municipal and special zone level are authorised to create any other necessary parts of the Land Parcel Registration System. However, to ensure uniformity throughout the country, any action to create additional parts must be carried out with the approval and guidance of the Director of the Department of Land and Housing Management.

The Director of the Department of Land and Housing Management will direct suitable form and suitable technology to be used in creating and maintaining the Land Parcel Registration System.
PART III
REGISTRATION OF LAND PARCELS

**Article 6**  
Registration of Land Parcels  
Registration of land parcels involves the process of adjudication and the process of recording details of the results of adjudication in the Land Parcel Registration System and then issuing a Land Title or Provisional Land Certificate to the owner of the land use right.

**Article 7**  
The Process of Adjudication of Land Use Right and Land Parcel Boundaries  
Adjudication is a consideration regarding the land use right, under rights and the location of land parcel boundaries based on evidence and laws.

**Article 8**  
Types of adjudication  
Adjudication is of 2 types which are:
1. Adjudication according to systematic survey under the Land Titling Project. This is called “systematic adjudication”.
2. Adjudication based on a request which is made according to the application submitted by the owner of the land use right. This is called “sporadic adjudication”.

**Article 9**  
Systematic Adjudication  
Adjudication according to the Land Titling Project is made in a systematic manner without request. All owners of land use right will cooperate and take part in it by declaring documents on land under their possession, giving detailed explanations to land officials who perform the adjudication on the possession and under rights of the land, placing boundary markers in agreement between neighbouring owners of the land use rights and guiding survey officials in making land maps, cooperating in paying the fees and tax on land under their possession and collecting and keeping the Land Title or Provisional Land Certificate.

The details of the systematic adjudication method of registration of land parcels are the subject of a separate ministerial direction.

**Article 10**  
Sporadic Adjudication  
Adjudication based on request is land parcel registration made for a specific land parcel according to the purpose of the owner of the land use right. The land parcel must be in an area which is not covered yet by the Land Titling Project or it is the remaining parcel located in the area where Land Titling Project has passed by.

The details of the sporadic adjudication method of registration of land parcels will be the subject of a separate ministerial direction.
Article 11  Responsibility to Carry Out Registration of Land Parcels

Under the close guidance of the Department of Land and Housing Management, the Division of Finance of each province, municipality and special zone is charged with the responsibility of registration of land parcels. However, adjudication will only be carried out at the time, in the place and in the way (systematic or sporadic) as directed by the Director of the Department of Land and Housing.

Article 12  Action Consequential on Adjudication

Following adjudication, either by systematic or sporadic, and in order to complete the registration of land parcels, the chief of the Office of Land and Housing Management is authorised and directed to take the following action in respect of:

1. filing and using the Individual Land Parcel Survey Plan;
2. using, updating and storing the Cadastral Map;
3. opening a sheet of the Land Register Book for each land parcel;
4. opening a Land File for each land parcel;
5. establishing and keeping up to date the Land Parcel Register Index; and
6. the form and approval of Land Title and Provisional Land Certificate;

Article 13  Filing and Using the Individual Land Parcel Survey Plan

The chief of the Office of Land and Housing Management of the province, municipality or special zone will utilise the Individual Land Parcel Survey Plan in recording land parcel details in the Land Register Book and preparing the Land Title or Provisional Land Certificate. The chief of the Office of Land and Housing Management of the province, municipality or special zone will then store the Individual Land Parcel Survey Plan in the Land File for the concerned parcel.

Article 14  Using, Updating and Storing the Cadastral Map

The chief of the Office of Land and Housing Management of the province, municipality or special zone will utilise the Cadastral Map produced by the Adjudication Unit or an officer of Land and Housing Management Office as a means of locating land parcels within an area, showing land parcels configuration, identifying land parcel numbers for each individual land parcel and other administrative purposes.

The chief of the Office of Land and Housing Management will store the Cadastral Map and keep it up to date by making appropriate alterations to the Cadastral Map as circumstances change, such as: land parcel subdivision and land parcel consolidation. A copy of the Cadastral Map will be made and stored at the Department of Land and Housing Management or other places as directed by the Director of the Department of Land and Housing Management.
Article 15  Opening a Sheet of the Land Register Book for Each Land Parcel

The chief of the Office of Land and Housing Management will make a record of land parcel details in the Land Register Book. The land parcel details for each land parcel will be recorded on a separate sheet of the Land Register Book. Each sheet of the Land Register Book will show the following information for the concerned land parcel:

- the location;
- the identification number of the Land Register Book and sheet number;
- the number of the Cadastral Map and the land parcel number;
- the number of the Land Title or Provisional Land Certificate;
- the identity of the owner of the land use right;
- limitations as to ownership or boundaries, if there is any;
- the nature of any under rights and the names of the owners of these rights;
- the land area; and
- any other information that the Director of the Department of Land and Housing Management directs to be recorded.

The Director of the Department of Land and Housing Management will direct the form, design and means of authentication of the Land Register Book.

Article 16  Opening a Land File for Each Land Parcel

The chief of the Office of Land and Housing Management will open a specific Land File for each land parcel. Documents are kept in the Land File as evidence of the rights and obligations in respect of the concerned land parcel. As documents concerning the land parcel are registered over time, these new documents will be placed in the Land File. The chief of the Office of Land and Housing Management is to keep in each Land File the following documents for the concerned land parcel:

1. the Individual Land Parcel Survey Plan;
2. all land documents and other relevant documents collected during the adjudication process;
3. all documents and reports made by the Office of Land and Housing Management during the adjudication process;
4. all relevant documents of applications and contracts for land registration;
5. any other documents that the chief of the Office of Land and Housing Management of the province, municipality or special zone considers appropriate to keep;
6. any other documents that the Director of the Department of Land and Housing Management directs to be kept.

Each Land File will be numbered in accordance with the Land Register Book and sheet for each concerned land parcel. The Director of the Department of Land and Housing Management will direct the form and design of the Land File.
Article 17  Establishing and Keeping Up to Date the Land Parcel Register Index

The chief of the Office of Land and Housing Management of the province, municipality or special zone will create a Land Parcel Register Index which will record a summary list of all existing and cancelled land parcels. The Land Parcel Register Index will show the following information for the concerned land parcels:

- the number of the Land Register Book and the number of the sheet of the Land Register Book on which the land parcel details are recorded;
- the number of the Cadastral Map, the land parcel and the Land Title or Provisional Land Certificate;
- any changes that occur as a result of land parcel subdivision or land parcel consolidation, in accordance with Chapter 5; and
- such other information as the Director of the Department of Land and Housing Management directs to be recording.

The Director of the Department of Land and Housing Management will direct the form, design and means of authentication of the Land Parcel Register Index.

Article 18  Form and Approval of Land Title or Provisional Land Certificate

The Director of the Department of Land and Housing Management will direct the standard form of Land Title and Provisional Land Certificate. The contents of the Land Title and Provisional Land Certificate will include the following:

1. number of Land Register Book and sheet number;
2. code numbers (province, district, village);
3. number of the Land Title or Provisional Land Certificate;
4. name of the owner of the land use right;
5. location of the land parcel, the land area, and the scale of the parcel diagram shown in the Land Title or Provisional Land Certificate;
6. the nature of any under rights and the names of the owners of these rights;
7. number of the Cadastral Map and land parcel number;
8. signatures and seals of the Director of the Finance Division and the chief of the concerned Office of Land and Housing Management; and
9. modifications concerning the registration (on back-side) including limitations as to ownership or boundaries, if there are any.

In addition to the above a Provisional Land Certificate will include the following:

- an additional statement which specifies the information which is uncertain, either as to the location of the land parcel boundary or the identity of the owner of the land use right or the existence or nature of any under rights.
- where it is the ownership that is uncertain a statement clearly mentioning the date when it can be exchanged for a Land Title; or
- where it is the boundaries that are uncertain, a statement clearly mentioning that the Provisional Land Certificate can be exchanged for a Land Title on completion of a
survey that correctly shows the position all of boundaries and shows the location of the land parcel on a cadastral map.

The directors of the Finance Divisions of the provinces, municipality and special zone will issue a Land Title or Provisional Land Certificate for a land parcel to the person to whom the Adjudication Unit, in case of systematic adjudication, or the land officer, in the case of sporadic adjudication, has given its approval. Only one Land Title or Provisional Land Certificate will be issued for each land parcel, except in the case that the owner of the land use right declares the Land Title or Provisional Land Certificate lost or destroyed in accordance with Article 50 of the Land Law, a Land Title or Provisional Land Certificate may be issued.

Once a Land Title or Provisional Land Certificate has been issued for a particular land parcel, it is forbidden to issue any other type of official document that certifies the land use right over that parcel.

**Article 19** **Definition and Term of Provisional Land Certificate**

In case the ownership right or boundary location are unclear and a Provisional Land Certificate is issued to the owner of the land use right, then the chief of the office of Land and Housing Management will include on the back of the Provisional Land Certificate a clear statement stating that it is limited as to ownership right or boundary location. In the case of a Provisional Land Certificate based on uncertainty as to ownership, the statement will also show the date when the statement can be removed.

A land parcel in a Provisional Land Certificate can only be assigned by leasing for a period not longer than 5 years and by inheritance. For the purposes of inheritance only a land parcel in a Provisional Land Certificate may be subdivided provided there is no uncertainty as to the parcel boundaries.

In case the boundaries are uncertain and the owner of the land use right wants to subdivide for any reason other than inheritance, or to consolidate the land use with one or more other land use rights, then there must be agreement as to the correct position of the boundaries, and a survey.

**Article 20** **Exchange of a Provisional Land Certificate issued under Land Titling Project for a Land Title**

The term of a Provisional Land Certificate due to uncertainty as to ownership right (based on incomplete documents and less than ten years occupation) is ten years from the date when the occupation commenced. After ten years has passed from the commencement of occupation, if no one has made a petition, then the owner of the land use right can make an application to the chief of the Office of Land and Housing Management of the province, municipality or special zone for him or her to issue a Land Title in exchange for the Provisional Land Use Certificate.

The commencement date of the occupation will be stated on the Provisional Land Certificate and also on the sheet for the concerned land parcel in the Land Registration Book.

This provision applies only to Provisional Land Certificates issued after the commencement of Ministerial Direction No 990/MoF as amended dated ... /98.

The exchange of a Provisional Land Certificate for a Land Title will be made in the following
way:

1. The owner of the land use right will make an application to the chief of the Office of Land and Housing Management at the province, municipality or special zone and give the concerned chief the Provisional Land Certificate;

2. After checking that there is no information concerning any objection by any person with a claim on the land, the chief of the concerned Office of Land and Housing Management will issue a Land Title for the parcel to replace the Provisional Land Certificate;

3. The sheet in the Land Register Book for the concerned land parcel will also be updated by making an entry stating that the Provisional Land Certificate has been cancelled and showing the date of the entry. The statements in the Land Register Book which mention the information which is uncertain and the date when the Provisional Land Certificate can be exchanged for a Land Title will also be cancelled and the notation made, “Cancelled on date of ………………”.

4. The Provisional Land Certificate will have the notation, “Cancelled on date of_________” entered on it and will be kept in the Land File for the parcel.

5. The new Land Title is certified and given to the person named as the owner of the land use right, or their legally authorised representative. The new Land Title will be given the same number as the Provisional Land Certificate it replaces, which is the same number as the relevant sheet in the Land Register Book.

In the case of uncertainty as to boundaries, the Provisional Land Certificate will be cancelled and a new Land Title issued in accordance with this procedure after a survey that correctly shows all details of boundaries and shows the location of the land parcel on a cadastral map that has been completed.

**Article 21** Exchange of a Provisional Land Certificate issued before the commencement of Ministerial Direction No 997/MoF, dated 24 June 1998 for a Land Title

Where a Provisional Land Certificate was issued prior to the commencement of Ministerial Direction No 997/MoF, dated 24 June 1998 the owner of the land use right may apply to the chief of the Office of Land and Housing Management of the province, municipality or special zone for him or her to issue a Land Title to replace the Provisional Land Certificate. This application may be made one year after the Provisional Land Certificate was collected from the Office of Land and Housing Management of the province, municipality or special zone.

This Article overrides any Articles concerning the withdrawal of Provisional Land Certificates in Ministerial Direction No 990/MoF dated 27/9/95 on Systematic Adjudication of Land Use Right.
PART IV
REGISTRATION OF DOCUMENTS CONCERNING LAND

Chapter 1 General Principles

Article 22 Documents Concerning Land

Documents concerning land means all documents which cause a definite assignment or an indefinite assignment.

Article 23 Registration of Documents Concerning Land in the Land Registration System

All documents concerning land parcels where a Land Title or Provisional Land Certificate has been issued must be registered in the Land Parcel Registration System. This requirement to register documents affecting land in the Land Parcel Registration System applies to all persons or organisations including Government departments, State Enterprises and other bodies, State organisations, political organisations and socio-economic organisations.

Article 24 Definition of Definite Assignment and Documents which Fall Within this Category

Definite assignment means that the land use right ceases to belong to a person and thereafter the land use right belongs to another person.

The following documents cause a definite assignment:

1. inheritance according to law or will (Law on Inheritance);
2. sale contract (article 37, Law on Contract);
3. exchange contracts (article 42, Law on Contract);
4. use of land and house as share contract (article 63, Law on Contract);
5. purchase of asset out of necessity by the State (article 43, Law on Ownership);
6. confiscation of asset by the State (article 44, Law on Ownership);
7. bestowal (article 13, Law on Inheritance);
8. handing over properties (article 32, Law on Inheritance and article 29, Law on Ownership); and
9. court order.

Under rights continue to affect the concerned land parcel after a definite assignment unless they have been expressly terminated or they have expired.
Article 25  Definite Assignment of Land Use Right

Definite assignment means the owner of the land use right assigns their land right of possession and use to another person.

Article 26  Definite Assignment of a Share of the Land Use Right

Definite assignment of a share means that a owner of the land use right assigns a share of the land use right to another person.

Definite assignment of a physical part of a land parcel can only take place after the land parcel has been subdivided in accordance with Chapter 5.

Article 27  Definition of Indefinite Assignment and Documents which Fall Within this Category

Indefinite assignment means that the owner of the land use right assigns an under right to another person. In these circumstances, the owner of the land use right is still the owner of the land use right. But the land use right is restricted by the under right.

The following documents cause an indefinite assignment:

1. leasing contract (article 49, Law on Contract);
2. mortgage contract (article 25, Law on Contract);
3. loan contract (article 46, Law on Contract);
4. occupation permission contract;
5. assignment of usufruct right contract;
6. creation of passage way (article 49, Law on Ownership);
7. creation of passage drains (article 50, Law on Ownership);
8. court order.

Chapter 2  Assignment and Creation of Rights

Article 28  General Requirements for Assignment and Creation of Rights

All assignment of land use right and the creation of under rights will be made in the form of a written contract based on standard forms approved by the Director of the Department of Land and Housing Management. This contract will be acknowledged by at least three witnesses.

The contract will show the date of the contract, assignor’s name, assignee’s name, names of the witnesses, location of the land, number of the Land Title or Provisional Land Certificate, number of map sheet, number of the land parcel, area of the land, amount to be paid in return, other binding notes on the assignment or under right. Where some items of information concerning land titling details do not exist for the concerned land parcel, then these items of information will not be shown on the contract.

Article 29  Assignment and Creation of Rights Where Land Title has Issued
For the land parcel having Land Title the concerned persons wishing to make a definite or indefinite assignment will directly apply to the Office of Land and Housing Management of the province, municipality or special zone and will take along all documents which may be used as evidence, such as:

1. Land Title;
3. Any two of:
   - Identity Card
   - Family Record Book
   - Residency certificate

**Article 30 Assignment and Creation of Rights Where Provisional Land Certificate has Issued**

For the land parcel having Provisional Land Certificate the concerned persons wishing to record the inheritance or a lease for a term of not more than 5 years will directly apply to the Office of Land and Housing Management of the province, municipality or special zone and will take along all documents which may be used as evidence, such as:

1. Provisional Land Certificate;
2. Current Land Tax certificate;
3. Any two of:
   - Identity Card
   - Family Record Book
   - Residency certificate

**Article 31 Additional Requirement for Assignment and Creation of Rights Where Land Title or Provisional Land Certificate has Not Yet Issued**

For the land parcel without Land Title or Provisional Land Certificate the person wishing to make a definite or indefinite assignment will form an application for assignment and receiving in accordance with official forms available which are to be submitted for the control and attestation to the chief of village where the land is located, to the Office of Land and Housing Management of the district and the District Administrative Office which will adjudicate and attest the right in land and house of the assignor. The forms are thereafter sent to the Office of Land and Housing Management of the province, municipality or special zone for control and attestation. If the documents are in order, the contract is approved by the head of Office of Land and Housing Management of the province, municipality or special zone and the transaction registered. The documents are then available for collection by the parties.
**Article 32  Application**

The owner of the land use right must make the application for registration of documents concerning land on an official form. The design of this form will be approved by the Director of the Department of Land and Housing Management.

The assignment contract will be signed by the owner of the land use right and the other concerned person and witnesses, and the owner of the land use right will attach the Land Title or Provisional Land Certificate for the concerned land parcel and the identification papers.

The following applies if the owner of the land use right does not keep the Land Title because someone else has the Land Title (for example, a bank which has the Land Title for guarantee or loan):

- the application must be signed by the owner of the land use right and the other concerned person;
- the person with the Land Title (for example, the bank) must take the Land Title to the Office of Land and Housing Management;
- the application must show the name and the address of the person who gave the Land Title to the Office of Land and Housing Management; and
- the application must show the reason why the other person has the Land Title, (for example, guarantee or loan).

Registration of documents concerning land can only be carried out if the person with the Land Title (for example, the bank) produces it to the Office of Land and Housing Management.

**Article 33  Examination of Application for Registration of Documents Concerning Land**

All documents concerning land will be subjected to the control and attestation at the Office of Land and Housing Management at the province, municipality or special zone where the land is situated before they can be used for the payment of fees, registration and recording in the Land Register Book and in the Land Title or Provisional Land Certificate.

In accordance with Article 51 of the Land Law the chiefs of the Office of Land and Housing Management will register documents in the order that they are lodged for registration. The order of registration does not depend on when the documents were signed. In case two documents concerning a land parcel were made, the document which is registered first will have priority over the other unregistered document, even if the other document was signed first.

**Article 34  Certification of Documents Concerning Land**

After a document concerning land has been examined and all necessary fees have been paid, the chief of the Office of Land and Housing Management at the provincial, municipal or special zone level will certify the document concerning land immediately.
Chapter 3
Recording Documents Concerning Land in the Land Parcel Registration System

Article 35  Recording Registration of Documents Concerning Land in the Land Parcel Registration System

The chief of the Office of Land and Housing Management of the province, municipality or special zone will take the following actions on land registration where a Land Title or Provisional Land Certificate has been issued already for the concerned land parcel;

1. updating the sheet of the Land Register Book and recording the change of rights in respect of the concerned land parcel.
2. updating the Land Title or Provisional Land Certificate and recording the change of rights in respect of the concerned land parcel.
3. keeping documents in the Land File for the concerned land parcel.

Article 36  Updating the Sheet of the Land Register Book of the Concerned Land Parcel

Once the application for registration and document concerning land have been certified, the sheet of the Land Register Book for the concerned land parcel must be updated.

For definite assignment, the name of the new owner of the land use right and a reference to the document will be recorded in the appropriate columns on the back of the sheet of the Land Register Book for the concerned land parcel.

For indefinite assignment, the name of the owner of the under right, the type of under right and a reference to the document creating the under right will be recorded in the appropriate columns on the back of the sheet of the Land Register Book for the concerned land parcel.

A document is registered when details of the document have been entered in the Land Register Book and the seal of the Office of Land and Housing Management of the province, municipality or special zone has been affixed.

Article 37  Updating the Land Title or Provisional Land Certificate for the Concerned Land Parcel

Once the sheet of the Land Register Book has been updated, the Land Title or Provisional Land Certificate must be updated.

For definite assignment, the name of the new owner of the land use right will be recorded in the appropriate columns on the back of the Land Title or Provisional Land Certificate for the concerned land parcel.
For indefinite assignment, the name of the owner of the under right, the type of under right and a reference to the document creating the under right will be recorded in the appropriate columns on the back of the Land Title or Provisional Land Certificate for the concerned land parcel.

**Article 38**  Keeping Documents in the Land File for the Concerned Land Parcel

All documents for the concerned land parcel will be kept in the Land File for that land parcel.

**Article 39**  Certification of Land Title, Provisional Land Certificate and Land Register Book

The person having the right to sign the modification of the Land Register Book and Land Title or Provisional Land Certificate which is going to be issued is the chief of the Office of Land and Housing Management at the provincial, municipal or special zone level. The person who can sign the new Land Title or Provisional Land Certificate to be issued and a new sheet of the Land Register Book is the chief of the Office of Land and Housing Management and the Director of the Finance Division at the provincial, municipality or special zone level.

**Article 40**  Return of the Land Title or Provisional Land Certificate

The chief of the Office of Land and Housing Management of the province, municipality or special zone will notify the owner of the land use right when the Land Title or Provisional Land Certificate of each parcel is ready for issue.

Where a Land Title was provided by someone other than the owner of the land use right, such as a mortgagee who holds the Land Title as security, that person will also be notified that the Land Title is ready for issue.

The Land Title or Provisional Land Certificate will be issued when the owner of the land use right or other person entitled to keep the Land Title or Provisional Land Certificate comes to the Office of Land and Housing Management at the province, municipality or special zone. The Land Title or Provisional Land Certificate may be issued legally to an authorised representative of the person entitled to keep the Land Title or Provisional Land Certificate.

When the owner of the land use right or other person or the legal authorised representative receives the Land Title or Provisional Land Certificate, he or she will sign a receipt for each Land Title or Provisional Land Certificate which will show all relevant information, including the date. This receipt will be kept in the Land File for the concerned parcel.
Chapter 4
Effect of Registration

Article 41  Difference Between the Information being Recorded in the Land Register Book with the Information Recorded in Other Parts of the Land Parcel Registration System

In case there is a difference between the information recorded in the Land Register Book and the information recorded in other parts of the Land Parcel Registration System, then the information in the Land Register Book is presumed to be correct until proven otherwise.

Article 42  Authority to Correct Errors Caused by Staff in the Land Parcel Registration System

If it is found that:

- the information recorded in the Land Register Book and the information recorded in the Land Title or Provisional Land Certificate or other part of the Land Parcel Registration System are different from each other;
- that the error is due to a mistake by staff; and
- the error made is minor,

then the chief of the concerned Office of Land and Housing Management will give an order to make correction.

If the error made is important, the concerned director of Finance Division will order, by written report, for it to be corrected based clearly on the facts. The written report will be kept with the records for the concerned parcel.

Article 43  Claim that Information in Land Register Book is Incorrect

A person or organisation who believes that information in the Land Register Book is wrong can bring a case in the court to prove that the information is incorrect. The person or organisation must provide strong evidence to the court to show that the information is incorrect. If the person or organisation proves the facts, then the court can order that the Land Register Book to be corrected.

In case information concerning ownership has been recorded in the Land Register Book for ten years then no one can challenge this information.

Article 44  Claim that Information on a Provisional Land Certificate is Incorrect

In case of a claim that information shown on a Provisional Land Certificate is incorrect, then the person or organisation who makes the claim should prove the case according to normal standards. The court should consider the information shown on the Provisional Land Certificate but the court should not presume that this information is correct. It is not necessary for the person or organisation who makes the claim to show that the information on the
A Provisional Land Certificate is incorrect. The person or organisation must simply prove the claim.

In case a Provisional Land Certificate states that only part of the information is uncertain, such as the location of the boundaries, then this article applies only to that information. The preceding article applies to the information shown on a Provisional Land Certificate which is not mentioned in the statements as being uncertain.

**Article 45  Court Order to Correct Information in the Land Register Book**

If the court decides that a person or organisation has proved that information in the Land Register Book should be corrected, then the person or organisation should provide the concerned Office of Land and Housing Management with an official copy of the court’s order.

The Office of Land and Housing Management is obliged to carry out the court’s order and correct the information in the Land Register Book and other parts of the Land Parcel Registration System which show the incorrect information.

**Chapter 5  Other matters**

**Article 46  Fees for Registration of Documents Concerning Land**

The chief of the Office of Land and Housing Management at the province, municipality or special zone will collect fees for registration of documents concerning land in accordance with the regulations.

**Article 47  Advising Other Organisations**

When the process of definite assignment has been completed, the chief of the Office of Land and Housing Management of the province, municipality or special zone will send written notice of the change in owner of the land use right to the Unit of Land and Housing Management at the district level and to the village head of the concerned village.

In the case of indefinite assignment, it is not necessary to advise the other organisations.
PART V
LAND PARCEL SUBDIVISION AND LAND PARCEL CONSOLIDATION

Chapter 1     General Principles

Article 48     Definitions of Land Subdivision and Land Consolidation

Land parcel subdivision is dividing a land parcel into new land parcels.

Land parcel consolidation is combining two or more land parcels into one new land parcel.

Article 49     Application for Subdivision or Consolidation

The owner of the land use right who wants to subdivide or consolidate their land must apply through the Land Office at the District in which the land parcel is located to the Office of Land and Housing Management at the provincial, municipal or special zone level for the land parcel to be subdivided or consolidated.

Article 50     Application for Subdivision or Consolidation

The owner of the land use right will make the application for subdivision or consolidation on an official form. The Director of the Department of Land and Housing Management will design the application form and other forms concerning document registration, land parcel subdivision and land parcel consolidation in order to provide facility to the implementation of this Ministerial Direction.

The application will be signed by the owner of the land use right and he or she will attach to the application the Land Title or Provisional Land Certificate for the concerned land parcel and the identification papers.

The following applies if the owner of the land use right does not keep the Land Title because someone else has the Land Title (for example, a bank which has the Land Title for guarantee or loan):

- the application must be signed by the owner of the land use right;
- the person with the Land Title (for example, the bank) must take the Land Title to the Office of Land and Housing Management at the province, municipality or special zone and sign the application;
- the application must show the name and address of the person who gave the Land Title to the Office of Land and Housing Management at the province, municipality or special zone; and
- the application must show the reason why the other person has the Land Title, (for example, guarantee or loan).
Land parcel subdivision or land parcel consolidation can only be carried out if the person with the Land Title (for example, the bank) produces it to the Office of Land and Housing Management.

**Article 51 Subdivision with Land Title**

Subdivision can be performed on a land parcel with Land Title or Provisional Land Certificate (in the case of inheritance) but cannot be carried out on a land parcel with no Land Title yet.

Subdivision can be performed on a land parcel with Provisional Land Certificate only for the purpose of the inheritance.

**Article 52 Subdivision with Joint Ownership**

Where one or more land parcels are to be subdivided, and the land parcels are owned jointly, subdivision can be carried out when:

1. The application for subdivision must be made unanimously by the owners of the land use right;

2. The owners of the land use right must provide written notice to the chief of Office of Land and Housing at province, municipality or special zone as to the distribution and shares of each new land parcel.

**Article 53 Conditions for Land Consolidation**

For land consolidation the following conditions must all be met:

1. land parcels must be adjoining;

2. land parcels must all have Land Titles;

3. the person named as the owner of the land use right for the consolidated land parcel may be one or many persons in the case of co-ownership.

4. Where there is a mortgage, the mortgage must be cancelled before consolidation. A new mortgage can then be made on the whole new land parcel.
Chapter 2  Creating New Individual Land Parcel Survey Plan

Article 54  Creating New Individual Land Parcel Survey Plan

After an application for subdivision or consolidation has been made in the correct manner, the chief of the Office of Land and Housing Management at provincial, municipal or special zone level will coordinate with the Land Office at the District concerned and will carry out the following activities:

1. confirm the existing boundaries and boundary markers of the land parcel or land parcels;
2. identify the location of any new boundaries;
3. measure the existing boundaries of the land parcel or land parcels
4. place boundary markers at the corner points and angle points of any new boundaries;
5. replace any boundary markers from previous survey work that are no longer in place and which are located at corner points or angle points of the new land parcel or land parcels;
6. remove any unnecessary boundary markers;
7. measure the lengths of any new boundaries;
8. prepare a Individual Land Parcel Survey Plan for each new land parcel;
9. write on each Individual Land Parcel Survey Plan a new parcel number for the concerned parcel, commencing with the next consecutive number available on the concerned Cadastral Map. The old parcel number will never be used again;
10. prepare multiple copies of the Individual Land Parcel Survey Plan, one for each land file and one for the old land file, and one for sending to the Department of Land and Housing Management or other designated places for safe keeping.

Article 55  Certification of New Individual Land Parcel Survey Plan

After the new Individual Land Parcel Survey Plan has been completed for each new land parcel, the chief of the Office of Land and Housing Management at provincial, municipal or special zone level will certify the Individual Land Parcel Survey Plan and the copies of the Individual Land Parcel Survey Plan.
Chapter 3  Recording Subdivision or Consolidation in the Land Parcel Registration System

Article 56  Recording Subdivision or Consolidation in the Land Parcel Registration System

The chief of the Office of Land and Housing Management of the province, municipality or special zone will take the following actions:

1. updating the Cadastral Map.
2. closing the current sheet of the Land Register Book and opening a new sheet of the Land Register Book for each land parcel.
3. canceling the current Land Title or, where appropriate, Provisional Land Certificate and creating a new Land Title or Provisional Land Certificate for each new land parcel.
4. updating the Land Parcel Register Index.
5. closing the current Land Files and opening a new Land File for each new land parcel.

Article 57  Updating the Cadastral Map

Once the new Individual Land Parcel Survey Plan has been certified, the Cadastral Map will be amended in the following way:

- the location of the new land parcel boundaries will be shown;
- the location of the new boundary markers will be shown;
- a clear cross (“X”) will be placed over the land parcel number of each land parcel which has been subdivided or consolidated. The cross will not obscure the original number but the cross will make it clear that the number is no longer used;
- a new land parcel number for each new land parcel will be shown within the boundary of the concerned land parcel;
- small red crosses will be made along each of the land parcel boundaries which no longer exist.

Article 58  Closing the Current Sheet of the Land Register Book and Opening a New Sheet of the Land Register Book for Each New Land Parcel

Only after the Cadastral Map has been updated can the following actions be taken:

- the sheet of the Land Register Book for each land parcel that was subdivided or consolidated will be closed; and
- a new sheet of the Land Register Book will be opened for each new parcel. The new sheet will be the next consecutive available sheet in the Land Register Book.

The closed sheet of the Land Register Book for each land parcel that was subdivided or
Article 59  The Subdivision and the Consolidation of Land Parcel

1. For subdivision, the new sheet of the Land Register Book will show the name of the owner of the land use right and if necessary the shares of each person according to the application for subdivision.

2. For consolidation, the new sheet of the Land Register Book will show the name of the owner of the land use right as being the same name as that shown in the sheets of the Land Registration Book for the original land parcels.

In both cases, the new sheet of the Land Register Book will show the same under rights as existed before subdivision or consolidation for the concerned land parcel.

Article 60  Cancelling the Current Land Title or Provisional Land Certificate and Creating New Land Title or Provisional Land Certificate for Each New Land Parcel

Once the new sheet of the Land Register Book has been opened:

- the current Land Title or Provisional Land Certificate for each land parcel that was subdivided or Land Title that was consolidated will be cancelled; and
- a new Land Title or Provisional Land Certificate will be created for each new land parcel.

Each cancelled Land Title or Provisional Land Certificate will show a statement that:

- the concerned Land Title or Provisional Land Certificate is cancelled; and
- specifies the number of each Land Title or Provisional Land Certificate that has been created for each new parcel.

The cancelled Land Title or Provisional Land Certificate will be then kept in the closed Land File for the concerned subdivided or consolidated land parcel.

The name of the owner of the land use right shown on the Land Title or Provisional Land Certificate will be the same as that shown on the corresponding sheet of the Land Register Book. Also, the Land Title or Provisional Land Certificate will show the same under rights as existed before subdivision or consolidation for the concerned land parcel unless they have been expressly released.
**Article 61**  
**Updating the Land Parcel Register Index**

Once the new sheet of the Land Register Book has been opened, the Land Parcel Register Index will be updated and will consist of:

1. for each new land parcel,
   - writing the number of the Land Register Book and the sheet of the Land Register Book for each new land parcel in the appropriate column;
   - writing the reference to the Cadastral Map and the parcel number for each new land parcel in the appropriate column;
   - in the case of subdivision, writing the number of the Land Register Book and number of the sheet of the Land Register Book of the land parcel that was subdivided to create the new land parcels, in the appropriate column;
   - in the case of consolidation, writing the numbers of the Land Register Books and numbers of the sheets of the Land Register Book of the land parcels that were consolidated to create the new land parcel, in the appropriate column.

2. for each subdivided or consolidated land parcel,
   - drawing a line through the number of the Land Register Book and the sheet of the Land Register Book;
   - drawing a line through the reference to the Cadastral Map and the parcel number;
   - in the case of consolidation, writing the number of the Land Register Book and number of the sheet of the Land Register Book of the new land parcel in the appropriate column;
   - writing the words “cancelled by subdivision” or “cancelled by consolidation” and the date of the certification of the new Individual Land Parcel Survey Plan for each land parcel that was subdivided or consolidated, in the appropriate column.

**Article 62**  
**Closing the Current Land Files and Opening a New Land File for Each New Land Parcel**

Once the Land Parcel Register Index has been updated:

1. For the closed Land File:
   - A copy of the new Individual Land Parcel Survey Plans already surveyed will be placed in the old Land File; and
   - a statement will be recorded in each old Land File that:
      - the Land File is closed on the date of ……/……/……., (month and year) and a new Land File has been opened on the ……/……/……/, Book number……, sheet number ……..;
Chapter 4 Other matters

Article 63 Fees for Subdivision and Consolidation

The chief of the Office of Land and Housing Management of the province, municipality or special zone will collect fees for subdivision and consolidation in accordance with the regulations.

Article 64 Issue New Land Title or Provisional Land Certificate

The chief of the Office of Land and Housing Management of the province, municipality or special zone will notify the owner of the land use right when the new Land Title or Provisional Land Certificate for each parcel is ready for issue.

Where a Land Title was provided by someone other than the owner of the land use right, such as a mortgagee who holds the Land Title as security, that person will also be notified that the new Land Title is ready for issue.

The Land Title or Provisional Land Certificate will be issued when the owner of the land use right or a legally authorized representative entitled to keep the Land Title or Provisional Land Certificate comes to the Office of Land and Housing Management of the province, municipality or special zone and all necessary fees have been paid.

When the owner of the land use right or other person receives the new Land Title or Provisional Land Certificate, he or she will sign a receipt for each Land Title or Provisional Land Certificate which will show all relevant information, including the date, month and year. This receipt will be kept in the Land File for the concerned parcel.

Article 65 Advising Other Organisations

When the process of creating a new parcel has been completed, the chief of the Office of Land and Housing Management of the province, municipality or special zone will send a written notice of the change in land parcel to the Unit of Land and Housing Management at the District level and the village head of the concerned village.
In addition, the chief of the Office of Land and Housing Management of the province, municipality or special zone will send a copy of each new Individual Land Parcel Survey Plan to the Department of Land and Housing Management or other designated place for safe keeping.

PART VI
ADMINISTRATION AND PENALTIES

Article 66 Difference Between the Terms being Recorded in the Land Register Book with those Written in other Parts of the Land Parcel Registration System

If it is found that the data recorded in the Land Register Book and the data recorded in the Land Title, Provisional Land Certificate or the Land Parcel Register Index are different from each other and the error made is minor, the chief of Office of Land and Housing Management of the province, municipality or special zone will order to make correction. If the error made is important, the director of the Finance Division of the province, municipality or special zone will order, by written report, for it to be corrected based clearly on the facts.

The written report will be placed on the Land File for the concerned land parcel.

Article 67 Search of the Information Recorded in the Land Parcel Registration System

Any person can apply to the chief of the Office of Land and Housing Management of the province, municipality or special zone to receive details of information recorded in the Land Parcel Registration System.

The applicant must use an approved form, state the information which he or she wants and pay a search fee. The Director of the Department of Land and Housing Management is charged to issue an order concerning details of the method of searching, access to information and search fees.

Article 68 Security

Individual and organisation from outside who have no responsibility in the Office of Land and Housing Management are forbidden to go inside the office for searching the Land Files, and it is strictly forbidden to take the Land Register Book and the Land Files to another place outside the Office of Land and Housing Management at the province, municipality or special zone.

If there is a court case and the court needs to examine information contained in the Land Parcel Registration System, then the parties or the court should make a request to the chief of the concerned Office of Land and Housing Management. The request should state the details of the information that is needed.

The chief of the concerned Office of Land and Housing Management will make a copy of the relevant information and give a certification that the copy is correct. The court can use the
copy and does not need to examine the original documents.

No staff must ever allow the records of the office or unit to be removed from the office or unit except for official business under authorisation. Any staff who fails to follow this article will be strongly punished.

**Article 69 Delegation of Authority**

The chief of the Office of Land and Housing Management of the province, municipality or special zone and the director of the Finance Division may delegate any of his or her power to any senior staff with appropriate experience to carry out any of the functions or duties arising from this Ministerial Direction.

The personnel of the Office of Land and Housing Management of the province, municipal or special zone will carry out all of functions for the implementation of this regulation, unless specific work is delegated to personnel of a district Office, or contracted to the authorised person in the private sector.

**Article 70 Personnel and Discipline**

The chief of the Office of Land and Housing Management of the province, municipal or special zone will direct personnel with suitable technical or administrative skill and training to carry out the various steps of examining the necessary changes and notations in the Land Parcel Registration System.

Any personnel who misuses his function and power or performs the work not in conformity with this Ministerial Direction will be subjected to disciplinary sanctions or will be, in case of severe violation, brought to court proceedings.

However, if the personnel has sincerely carried out his or her function, he will not be held responsible of the damages caused by his unintentional actions during the various steps of examining the necessary changes and notations in the Land Parcel Registration System.

**Article 71 Other individuals**

Any person who conceals the truth during the declaration of data on land, will be held responsible before the law of whatever consequences which may arise later.
PART VII
IMPLEMENTATION

Article 72 Development of this Ministerial Direction

The Chief of Cabinet of the Finance Ministry and the Director of the Department of Land and Housing Management are charged with the development of this Ministerial Direction.

Article 73 Guides for implementation

In order to ensure a good result from this Ministerial Direction, based on proposals made by the Director of Department of Land and Housing Management, the Cabinet Director of the Finance Ministry will be responsible to issue a Guide regarding the detail of the implementation. All existing guides and work instructions previously issued which are in contradiction to the new guide will be cancelled.

Article 74 Implementation

The Chief of Finance Ministry Cabinet, Department of Land and Housing Management, Finance Divisions (Offices of Land and Housing Management) of the Provinces, municipality or special zone and other concerned parties will be charged of the implementation of this Ministerial Direction accordingly to their functions.

The Director of the Department of Land and Housing Management will coordinate with Land and Housing Management Offices of the Provinces, Municipality or special zone in order to ensure a rigorous implementation of the Regulation.

Article 75 Areas of application

This Ministerial Direction applies in all areas where Land Title and Provisional Land Certificate are issued in accordance with the notification of the Director of the Department of Land and Housing Management.

Article 76 Effectiveness

This Ministerial Direction is effective from the date of signature.

Minister of Finance

Khamphoui KEBOUARAPHA
(997/MoF)
Systematic Adjudication
MINISTERIAL DIRECTION
ON SYSTEMATIC ADJUDICATION OF LAND USE RIGHT

- With reference to the Land Law No.01/97/NA dated 12/4/97;
- With reference to the Law on Ownership No.01/90/NA dated 27/06/90;
- With reference to Prime Minister Decree No.104/PM dated 06/07/93 on the Setting-up of the Ministry of Finance;
- With reference to Prime Minister Decree No.191/PM dated 10/11/94 on the Collection of Land Title Fees;
- In order to provide the facility for the issuing of Land Titles and to broaden interest in land registration for people who have not yet registered their land, to promote the development of highly effective land economy and to establish clear land use right;
- In order to form the basis for the implementation of land titling project.

The Minister of Finance takes the following decisions:

Chapter 1: General Principles

Article 1: Adjudication

Adjudication is a consideration regarding the details concerning land parcels and ownership of land use rights and under rights based on proving evidence and laws. There are two types of adjudication: systematic and sporadic. This Ministerial Direction deals with the systematic adjudication of land parcel location and boundary as well as people’s right relating to this land parcel.

Article 2: Systematic Adjudication Method

Systematic adjudication method is a method used for determining land parcel boundary of each land parcel and the ownership of the land use right which starts at a specific area and, thereafter, expands to the whole village.

A number of persons having technical skill will be included in working units which will be called the “Adjudication Unit”. These working units will undertake surveys and adjudication in villages.
The Adjudication Unit will undertake the collection of evidence from the owner of the land use right, neighbours, village officials and other people in order to determine land ownership and any under rights and the location and boundary of each land parcel which is related to a land use right. Adjudication work will be openly carried out by using data concerning land acquisition based on cooperation with villagers. The data has to be certified by the village chief or the nominee of the chief of village.

After completing the process, the Adjudication Unit will conclude and approve the adjudication of ownership of land use right and under rights of each land parcel in the village, including State-owned land. The Adjudication Unit will prepare maps showing the location and boundary of each land parcel in each “nouay” (unit), “khoom” (area) and in the whole village.

After the completion of adjudication work, the appraisal report of the Adjudication Unit will be sent to the Office of Land and House Management of the province, municipality or special zone for registration and issuing of the Land Title or Provisional Land Certificate.

**Article 3: Terms**

1. The terms used in this Ministerial Direction will mean something which is large or small in number, such as: certain person would mean one person or many people.

2. The term “person” may include person and organisation.

3. The term “under right” is a name which includes all rights which can be assigned by the owner of the land use right to another person for a limited time, such as mortgage, lease, occupation right, usufruct right.

4. The term “Land Title” is the highest level evidential document which certifies that the name mentioned in this Land Title receives the land use right according to the law. This person is called the owner of the land use right.

5. The term “Provisional Land Certificate” is a document issued where some of the information is uncertain and a Land Title cannot be issued. In this case the Provisional Land Certificate contains the same information as a Land Title but it contains an additional statement which specifies the information which is uncertain, either as to the location of the land parcel boundary or the identity of the owner of the land use right which cannot be proven completely or the existence of under rights is unclear.

A Provisional Land Certificate will include a statement clearly mentioning the date when it can be exchanged for a Land Title. The Provisional Land Certificate will be in a form approved by the Director of the Department of Land and Housing Management.
Chapter 2: Adjudication Unit

Article 4: Organisation of the Adjudication Unit

The Adjudication Unit is comprised of suitable persons chosen by the director of Finance Division of the province, municipality or special zone. This unit will also include persons specialised in boundary adjudication of land parcels and ownership of land use right adjudication.

The governor of the province, mayor of municipality or chiefs of special zone will appoint members of the Adjudication Unit based on proposals made by the director of Finance Division of the province, municipality or special zone.

The staff of the Adjudication Unit will be under the control and the direction of the chief of the Adjudication Unit and they are charged to follow the guidelines and work instructions (both written and spoken) that the chief of the Adjudication Unit gives them. The chief of the Adjudication Unit will be under the administration control of the Head Office of Land and Housing Management and with the technical guidance from the Department of Land and Housing Management.

The governor of the province, mayor of municipality or chiefs of special zone will send the letter of appointment to the Land Management and Land and Forest Allocation Committee, the Finance Minister and other concerned parties for their information.

The chief of district will appoint the village head or another person to assist in the adjudication in each sub-unit of the Adjudication Unit, as representative of the public land and community interest for his locality, including acting as witness and giving the certification of the land use right of the concerned person and the adjudication of the land parcel boundaries. For assisting in adjudication work, the village head or his nominee will receive an allowance.

Chapter 3: Preparation and Notification

Article 5: Area of Systematic Adjudication Operation

Based on the proposals made by the Director of Department of Land and House Management, the Ministry of Finance will make a decision on the broad areas of the provinces, municipality or special zone which will be put under systematic adjudication operation. Then on the basis of the proposals made by the director of Finance Division of the province, municipality or special zone, in coordination with Director of Department of Land and Housing Management, the governor of the province, mayor of municipality or chiefs of special zone will determine the exact villages under their responsibility which are to be put under systematic adjudication operation.

In villages subject to systematic adjudication, the chief of the Office of Land and Housing Management will not issue Land Titles or Provisional Land Certificates by sporadic adjudication method.
Article 6: Cadastral Map

In coordination with the National Geographic Department, the Director of Department of Land and House Management will plan and supply appropriate maps in the area where the systematic adjudication operation is to take place. These maps will be used to ensure that adjudication work proceeds in a systematic manner and to benefit the collection of data and evidence on land. Systematic adjudication work will be carried out in areas where each land parcel is covered by an appropriate map unless special arrangements for ground survey have been made.

During the adjudication work, the Adjudication Unit will perform the record of detailed information concerning land boundaries, area, and other data on the map as directed by the Director of Department of Land and House Management. This is called “the preliminary cadastral map”. The preliminary cadastral map will show the land parcel boundary location of corner marks, land parcel number and boundary lengths.

Article 7: General Notification in the Media

The governor of the province, mayor of municipality or chiefs of special zone will issue a general notification in the media at least 28 days before systematic adjudication work commences. The general notifications will be issued in the media for at least 3 consecutive days.

Article 8: Content of the General Notification

The general notification will cover the following matters:

- villages and times of adjudication operation; and
- other matters as being considered to be appropriate by the governor of the province, the mayor of municipality or the chiefs of special zone.

Article 9: Specific Notification

The director of the Finance Division of the province, municipality or special zone will issue a specific notification and put notice to the public at least 21 days before the commencement of systematic adjudication operation. The specific notification will be published in the media for at least 3 consecutive days.

Article 10: Content of the Specific Notification

The notification will deal with specific matters as follows:

- details of the adjudication process and the methods used for carrying out adjudication operation;
- address and telephone number of the Office of Adjudication Unit;
- villages where adjudication operation is to be undertaken;
- time schedules for adjudication operation;
- functions of the owner of the land use right and of the owners of neighbouring land use
right concerning participation in the marking and certification of the boundaries of their land;
- costs and method of payment to be made by the owner of the land use right; and
- other matters as considered to be appropriate by the Director of Department of Land and House Management or the director of the Finance Division of the province, municipality or special zone.

**Article 11: Parties or Person to Whom the Specific Notification is to be Sent**

Specific notifications will be sent to the following parties or persons:
- chief of village of the adjudication area;
- chief of village where there is a common boundary with the land parcel with is under adjudication operation;
- chief of district of the adjudication area;
- chairman of the Land Management and Land and Forest Allocation Committee at provincial, municipal and special zone level;
- chief of district Land and House Management Unit who is in charge of the adjudication area;
- head of State Assets Office, Division of Finance of the province, municipality or special zone;
- Lao Women’s Union and Front for Reconstruction at provincial, municipal or special zone and district levels in the areas concerned; and
- all other concerned chiefs of divisions of the province, municipality or special zone;

The specific notification will be sent to other individual and State or private organisation as considered to be appropriate by the director of the Finance Division of the province, municipality or special zone.

All notifications and directives for the implementation of this Ministerial Direction will be sent to the chief of village and chief of district Land and House Management Unit in order to put notice in public place at the village office, district office and other suitable place.

In addition, the chief of the Office of Land and Housing Management is authorised to conduct public meetings in the concerned village to provide details of the matters stated in the specific notification to the villagers.

**Chapter 4 : Roles, Functions and Rights of Adjudication Unit**

**Article 12: Roles, Functions and Rights of the Adjudication Unit**

The role of the Adjudication Unit is authorised to make:
- the considerations of the status of the land (private and the State);
• cadastral survey of each land parcel which the owner of the land use right and the neighbours assist in making measurements; and

• an adjudication on who has the land use right on the land parcel and details of the under rights of that land parcel.

The functions of the personnel of the Adjudication Unit is to perform, faithfully, the adjudication work in accordance with the provisions prescribed in this Ministerial Direction. Personnel who performs their functions by concealing facts for the benefit of themselves or another party or any other person and do not tell the whole truth will receive a warning and will be subject to punishment.

**Article 13: Persons with Whom the Adjudication Unit Could Make Contact in Order to Acquire Evidence**

The Adjudication Unit will take the consideration of the evidence concerning land parcel in which a certain person has claimed for land use right.

In case the evidence on land parcel boundary or land use right is not clear, the Adjudication Unit can make contact with the following persons in order to acquire evidence:

• person who makes a claim on land use right or land right on the neighbouring parcel having common boundary;

• chief of village, provincial authorities, district officials;

• senior members of the village, such as the member of the Front for Reconstruction; and

• any other persons.

**Article 14: Evidence Which Could be Taken into Consideration by the Adjudication Unit**

While performing adjudication work, the Adjudication Unit will consider data concerning land parcel, such as:

• any documents or written records, including documents acquired by the staff who carry out the adjudication;

• plans and similar items;

• verbal testimony (note is taken by the adjudication personnel and the witness);

• written testimony;

• evidence from specialist;

• forms of natural and man made physical evidence and structures which concern the boundaries of the land use right; and

• other forms of evidence and items of information from any source which the Director of the Department of Land and Housing Management considers appropriate.
**Article 15: Right on Decision Taking of the Adjudication Unit**

The Adjudication Unit has the right to adjudicate documents used as evidence and to certify the validity of the following:

1. boundary lines and land area; and
2. all types of historical data concerning the acquisition of land use right and under rights based on legal documents, including the location in the area of adjudication operation.

Such as:

1. the owner of the land use right has given a testimonial declaration which is supported by evidence; and
2. the testimony can be certified by the owner of neighbouring land use right and the chief of village or the nominee of the village chief. If the testimony is certified as correct, then it is not necessary for the Adjudication Unit to look for other additional evidence.

If the village head or the nominee of the village head does not know all the details of the case, then senior members of the village, such as the member of the Front for Reconstruction, can give the certification.

If the evidence is, later on, found to be invalid, the Adjudication Unit will not be held responsible if they acted honestly.

**Article 16: Arbitration Right**

If there is a dispute or an objectionable claim on land use right or on boundary marking during the period of marking boundaries and collecting evidence, then the Adjudication Unit has the right to participate in the arbitration proceedings between concerned parties so that all the parties can reach consensus.

**Article 17: Documentation of the Adjudication Unit and Certification by Village Head**

After successfully carrying out its functions, the Adjudication Unit will write a report on the data of each land parcel which is already subjected to adjudication operation.

The report will include original documents or copies of documents, written testimony, records on the drawings and other data that the Adjudication Unit has taken into consideration on land parcel boundaries, land use right and under rights in conformity with the law and practice of the adjudication process.

The accuracy and completeness of this report will be certified by the chief of village or the nominee of the village chief. The chief of village or the nominee will certify the report based on accurate information. The chief of village or the nominee will gather this information in a diligent and conscientious manner. The chief of village or the nominee is charged with the duty to carry out his or her duties in a responsible manner.
Article 18: Content of the Adjudication Unit Documentation

The Documentation of the Adjudication Unit will make mention on standard approved forms the details concerning adjudicated land as well as on other details, such as:

1. date, month, year of the survey;
2. land boundary, area of surveyed land and adjoining land parcels;
3. characteristics of the land use rights, and details on land use in each period;
4. name and address of the person who is recognised by the Adjudication Unit as the owner of the land use right;
5. name and address of any person who is recognised by the Adjudication Unit as the owner of a under right;
6. the nature of any under right (for example: lease, mortgage).
7. history of the land in sufficient detail to show whether the land is State land or not State land. If it is State land then the report should show the name and address of the occupiers and duration of occupancy and the managing authorities (if any), and reference and show any documents approving the occupation.
8. name and address of the person who makes an appeal for re-consideration of boundary or of the person who has the right to use the land, but the decision on it has not yet taken by the Adjudication Unit;
9. in case the land is considered to be in category 2 of Article 19 (occupation for less than 10 years) then the time when the occupier commenced occupation of the land. In case the current occupier acquired the land use right by purchase, inheritance or other means from a previous occupier, then the report should show when the first occupier commenced occupation of the land (based on the information obtained from the Naiban and the seniors of the village);
10. name and address of any person who makes an objection and the details of the dispute or objection;
11. if a particular application for adjudication of a land parcel has been rejected for adjudication, the reasons for not being adjudicated must be recorded; and
12. other data relating to land that the Director of Department of Land and House Management or the director of Finance Division of the province, municipality or special zones may have, additionally, needed.

Article 19: Types of Ownership of Land Use Right

The report on land use right of the Adjudication Unit will make provision for the following types of ownership of land use right:

Category 1

1.1 Ownership of Land Use Right by Complete Documents
   Land which is not State Land and the owner has complete and valid documents.

1.2 Ownership of Land Use Right by Incomplete Documents and Ten Years of Peaceful
Occupation

Land which is not State land and the owner has some documents (either legally complete or incomplete) but not all the documents as in category 1.1 and, in addition, the owner has been the owner of the land use right for ten years or more.

The period of occupation for ten years can be comprised of:

- occupation by one occupier for the whole ten years; or
- occupation by different people for shorter periods but one occupier has assigned or given as inheritance his or her interest to the next occupier and all together it makes ten years.

1.3 Ownership of Land Use Right by Customary Ways

Land which is not State land and which is in the peaceful possession of the person who has declared that he or she is the legal owner of the use right but the land use right was acquired by means of customary ways (by buying/selling or giving as inheritance) or by legally clearing the land with his or her own labor or capital and therefore there are no complete documents or any documents at all. However in this case the person will be considered as the owner of the land use right if there is testimony by the village head or his nominee and at least two neighbours stating that the person is in fact the true owner of the land use right.

1.4 Ownership of Land Use Right by Peaceful and Legal Occupation

Land which belongs to another person and the current occupier has continually been in the peaceful and legal occupation of the land for a period of twenty years or more.

The period of occupation for twenty years can be comprised of:

- occupation by one occupier for the whole twenty years; or
- occupation by different people for shorter periods but one occupier has assigned or given as inheritance his or her interest to the next occupier and all together it makes twenty years.

1.5 Ownership of Land Use Right by Peaceful but Illegal Occupation

Land which is private land that was not occupied at the time the present occupier (not a lessee) began using the land and has continually been in peaceful but illegal occupation of the land for a period of ten years or more.

The period of occupation for ten years can be comprised of:

- occupation by one occupier for the whole ten years; or
- occupation by different people for shorter periods but one occupier has assigned or given as inheritance his or her interest to the next occupier and all together it makes ten years.

Ownership of State land by means of long term occupation is impossible. This land will always remain State land.
Category 2

Ownership of Land Use Right Without Complete Documents and Less than Ten Years Occupation
Land which is not State land and which is in legal and peaceful use of a particular individual. However, the owner lacks complete documents which are to be used as evidence and the owner and previous owners who assigned their interest or gave it as inheritance to the current owner have occupied the land for less than ten years.

Category 3

State land includes:
- land under the administrative authorities at central level, provinces, municipality, special zone, districts and villages; public and community land; protected land, waste land, defense land, communication land, and others;
- land of Lao who fled or of a foreigner who fled.

But in case land in category 1 or 2 as specified in this article:
- belongs to a non Lao citizen; or
- Lao person but the area is greater then the area permitted in the Land Law,
then the Adjudication Unit will consider the land as private land use right. However, they will note this fact in their report.

In case a land parcel is categorized as category 1 or category 3 as specified in this Article, then this land parcel is suitable for a Land Title. In the case of category 3, the Land Title will show “State Land”.

In case a land parcel is categorized as category 2 as specified in this Article, then this land parcel is suitable for a Provisional Land Certificate.

However, in the case of any land where the Adjudication Unit considers that there is some doubt or uncertainty concerning the ownership of the land use right, then the Adjudication Unit is permitted to consider the land as category 2 and the land parcel is suitable for a Provisional Land Certificate. A Provisional Land Certificate will also be issued where there is doubt concerning the under rights or the location of the land parcel boundaries.

Article 20: Document of Determination made by Adjudication Unit

The Adjudication Unit will issue a determination document in written form concerning each and every land parcel. The determination document will include the following provisions:

1. type of ownership of land as prescribed in Article 19 above. If the type of ownership of land can not be concluded, then the document must state the reason why the type of ownership of land is not concluded;
2. name of the person who is approved by the Adjudication Unit as entitled to receive the right on the land parcel as the legal owner of the land use right;
3. for State land, the name of the occupier (if any), duration of occupancy of existing
occupier, current land use and the name of managing authorities (if any);

4. location of land boundary and land area of each land parcel;

5. name of any person who is approved by the Adjudication Unit as the owner of an under
right and the nature of that under right;

6. if the land use right belongs to a foreigner or if there is excess land area, then details of
the facts;

7. if the land use right is considered as category 2 of article 19, or if there is doubt
concerning under rights or land parcel boundaries then the details of the doubt should
be specified; and

8. other data as may be additionally required by the chief of province, mayor of
municipality or chiefs of special zone.

Article 21: Documents of Cadastral Survey

The Adjudication Unit will create a Cadastral Map covering the adjudication area and an
Individual Land Parcel Survey Plan for each land parcel. The Cadastral Map will cover land
parcels altogether which will show boundaries of each land parcel and a land parcel number in
a serial order. These numbers are not the numbers of the Land Titles or Provisional Land
Certificates.

Chapter 5: Functions of the Owner of Land Use Right

Article 22: Functions of the Owner of Land Use Right

The owner of the land use right will cooperate with the Adjudication Unit in accordance with
this Ministerial Direction, as set out in this Article:

1. Boundary Marking

The owner of the land use right will:

- give direction to survey and adjudication work;
- mark land boundary in cooperation with the neighbours;
- put the markers on land boundary corners in agreement with the owners of the
  adjoining land use right.

Boundary marking is the marking of boundaries of the land parcel on each side where
there is a border linking with the land of one or many individuals. The boundary
marker will be placed in agreement with the owner of neighbouring land use right. The
placing of boundary marker is therefore considered as one of the most important work.

The Boundary marking pole is made of cement or hard wood having a marking and a
code number (if it is possible) on each pole. It is designed by the Department of Land
and House Management and is to be used by the owner of the land use right.
Once the boundary marking pole has been placed, it cannot be moved or its position altered without authorisation from the concerned authority.

2. **Adjudication Work**

The owner of the land use right will:

- submit documents after having gathered documentation concerning land use right, any under right, as well as land boundary;
- give answers to questions on the location of land boundary, land use right and under rights which are asked by the Adjudication Unit;
- give testimony when required, provide all the necessary documents and make contribution to the resolving of disputes; and
- sign on documents as determined in the documentation of the adjudication unit.

During the operation of the land registration project, all document relating to land management of the land covered by the adjudication work will be handed over to the concerned staff which will take charge of management and follow up work. After the Land Title or Provisional Land Certificate has issued, these documents will be kept in the Land File at the Office of Land and House Management of the province, municipality or special zone.

Whenever the Adjudication Unit takes original documents from any person, they will issue a receipt for these documents as evidence.

3. **Issue of Land Title or Provisional Land Certificate**

The owner of the land use right will:

- pay all necessary fees;
- collect his or her Land Title or Provisional Land Certificate from the Office of Land and Housing Management of the concerned province, municipality or special zone.

4. **Adjudication Involving State Land or Land Managed by the State**

Where land is occupied or managed by a government agency or organisation, then a representative of that agency or organisation must take on the obligations and functions contained in this Article and all other articles in this Ministerial Direction concerning the adjudication process for the concerned land parcel.

**Chapter 6 : Publication of Decisions Taken by the Adjudication Unit**

**Article 23**: Publication of Decisions Taken by the Adjudication Unit

The Adjudication Unit will issue a notification of its decision for all land parcels adjudicated such as:
- those for which the land type and ownership is concluded; and
- those which cannot be concluded by the Adjudication Unit.

The notification will be displayed at the Adjudication Office conveniently for the interested persons to see.

The notification consists of the following provisions:

1. results of the decision taken by the Adjudication Unit which includes the list of the names of the owner of the land use right or name of occupier of State land, category of ownership of land according to Article 19, land location and land area. If the Adjudication Unit cannot make a conclusion then a statement that no conclusion was made must be included in the notification;

2. the period of notification and how to make an objection during the period of notification;

3. fees to be paid and method of payment which is to be made by the owner of the land use right;

4. all land parcels with dispute, showing the land parcel identification and that there is a dispute. A note to the notification will state that if the dispute is not resolved during the period of the notification, the adjudication documents will be sent to the Office of Land and Housing Management at the province, municipality or special zone, for further dispute resolution;

5. a statement that any person can look at the Individual Land Parcel Map and the Preliminary Cadastral Map at the Adjudication Unit field office and giving the address of this office.; and

6. other data as may be additionally required by the Director of Department of Land and House Management and the directors of Finance Divisions of the provinces, municipality or special zones.

Where the Adjudication Unit is unable to fully complete the adjudication work due to:

1. the complexity of problems; or
2. lack of sufficient authority to make decision

Then the fact of the problem will be notified together with list of other land parcels for 30 days, and the adjudication report and documents will be sent to the head of Office of Land and Housing Management at the province, municipality or special zone to be taken in consideration by the Committee for Resolving the Problems of Issuing Land Title.

**Article 24: Consideration of a Case by the Committee for Resolving the Problems of Issuing Land Title**

The director of the Finance Division of the province, municipality or special zone will appoint suitable persons as members of the Committee for Resolving the Problems of Issuing Land Title.

In case a problem has been referred to the Committee through the Office of Land and Housing Management by the Adjudication Unit, then the Committee for Resolving the Problems of Issuing Land Title will make a consideration of the case and make a decision. The Committee
for Resolving the Problems of Issuing Land Title has all the powers, rights and duties that the Adjudication Unit has and, in addition, can consider new evidence which the Adjudication Unit did not have.

In this case, the Committee for Resolving the Problems of Issuing Land Title will, for publication of decisions it has reached a conclusion, follow the procedure set out in Article 20 and Article 23 of this Ministerial Direction.

In case the Committee for Resolving the Problems of Issuing Land Title is unable to resolve the problem, it will make a request to Land Management and Land and Forest Allocation Committee at the province, municipal or special zone level to resolve the problem. To assist the Land Management and Land and Forest Allocation Committee, the concerned Division of Finance must supply all relevant documents and information. When it has made a decision, the Land Management and Land and Forest Allocation Committee will follow the procedure set out in Article 20 and Article 23 of this Ministerial Direction.

**Article 25: Parties or Persons Who are to be Notified**

The director of Finance Division of the province, municipality or special zone will inform, in writing, all concerned parties concerning the decisions taken by the Adjudication Unit. These concerned parties are:

- chief of village of the adjudication area;
- chief of village of the village adjoining the adjudication area;
- chief of district Land and Housing Management Unit in the adjudication area;
- chief of district of adjudication area;
- all concerned chiefs of divisions of province, municipality or special zone in the adjudication area; and
- the director of the Finance Division can notify the general public through the media according to the real conditions.

**Article 26: Duration of Notification Prior to Issuing the Land Title or Provisional Land Certificate**

After 30 days from the data of issue of the notification as prescribed in the above Article 25, the director of the Finance Division of the province, municipality or special zone will promptly (without undue delay) issue the Land Title or Provisional Land Certificate to the owner of the land use right (or other person entitled to hold the Land Title, such as a mortgagee) unless there is a dispute with details recorded or the adjudication unit refers the case to the Committee for Resolving Problems of Issuing Land Title through the Office of Land and Housing Management of the province, municipality or special zone for resolving some problems.
Chapter 7: Proceeding of Application for Re-consideration

**Article 27: Modification of Decision Based on Mutual Agreement of the Two Parties**

A person who is not satisfied with the decision made by the Adjudication Unit can propose a change of the decision in agreement with the person who has been named in the Notification. However, this can not be done for the category of land as stated in Article 19.

The agreement between the two parties will be recorded in written form and, thereafter, submitted to the director of the Finance Division of the province, municipality or special zone within the period of 30 days from the date of notification of the Adjudication Unit’s decision.

The mutual agreement between the two parties will be considered by the director of the Finance Division of the province, municipality or special zone. The recognition of the facts by the two parties will be used as the basis for the modification of the Adjudication Unit’s decision.

**Article 28: Re-consideration of decision**

If a person is not satisfied with the decision taken by the Adjudication Unit, but is unable to resolve the problem by mutual agreement of the two parties, he may apply for re-consideration of the decision to the director of the Finance Division of the province, municipality or special zone within a period of 30 days from the date of notification of the decision of the Adjudication Unit.

The director of the Finance Division of the province, municipality or special zone will issue an official notification concerning the application for re-consideration of the decision taken by the Adjudication Unit including the information prescribed in Article 23. A copy of the notification will be enclosed with the application for re-consideration of decision and sent to the person who raised the dispute and to the person named in the notification of the Adjudication Unit and other concerned persons.

The director of the Finance Division of the province, municipality or special zone will make a review of the decision of the Adjudication Unit in conformity with the proceedings and rules prescribed in this Ministerial Direction. The director of the concerned Finance Division will be assisted by a committee of persons with appropriate skills for reviewing the decision.

The director of the Finance Division of the province, municipality or special zone for the purpose of this Article, has the same rights and functions as the Adjudication Unit, and in addition she or he is able to make a re-consideration based on new evidence which the Adjudication Unit did not have.

The director of the Finance Division of the province, municipality or special zone must make a report concerning the result of the re-consideration of evidence according to Articles 17 and 20 of this Ministerial Direction.

The director of the Finance Division of the province, municipality or special zone must notify, in written form, all concerned parties concerning the result of the re-consideration as well as other information to those persons shown in Article 25 of this Ministerial Direction. The notice will mention that any disputes of the decision should be submitted to the court within 30 days from the date of the director of the Finance Division’s notice.
The director of the Finance Division of the province, municipality or special zone can assign the function and responsibility stated in this article to another person. The nominee can take a decision on the basis of this Article and his decision has the same validity as the decision taken by the director of the Finance Division of the province, municipality or special zone.

**Article 29: Filing a Complaint to the Court**

If a person is not satisfied with the decision taken by the director of Finance Division of the province, municipality or special zone, he or she may file a complaint to the court so that it can make a legal consideration concerning the decision taken by the director of the Finance Division of the province, municipality or special zone. The petition to the court will be made within 30 days from the date of publication and propagation of the decision of the director of the Finance Division of the province, municipality or special zone.

If a person has filed a petition to the court in order to request the court to make a legal consideration regarding the decision made by the director of the Finance Division of the province, municipality or special zone, the concerned person will inform, in writing, the concerned director of Finance Division concerning the petition within the period of 30 days mentioned in this Article.

The court will make a review of the decision made by the concerned director of the Finance Division and will, then, take a decision according to the proceedings and rules prescribed in this Ministerial Direction.

The court has the same rights and functions as the Adjudication Unit. However, it can make the consideration of new evidence that the Adjudication Unit or the director of the Finance Division of the province, municipality or special zone did not have.

If a person, after receiving the notification concerning the decision of the Adjudication Unit or of the director of the Finance Division of the province, municipality or special zone, has not formulated a petition to the court within the time prescribed in this Ministerial Direction, he or she has no right to make a claim on the right on land from the beneficiary from the decision made by the Adjudication Unit or by the director of the Finance Division of the province, municipality or special zone.

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**Chapter 8: Land Title**

**Article 30: Issuing the Land Title or Provisional Land Certificate**

The person who can sign the new Land Title or Provisional Land Certificate to be issued and a new sheet of the Land Register Book is the chief of the Office of Land and Housing Management and the director of the Finance Division of the province, municipality or special zone.

The chief of the Office of Land and Housing Management will prepare and sign the new Land Title or Provisional Land Certificate and a new sheet of the Land Register Book for issue. These will then be sent to the director of the Finance Division of the province, municipality or special zone together with the adjudication report. The director of the Finance Division of the province, municipality or special zone will sign the new Land Title or Provisional Land Certificate and a new sheet of the Land Register Book in reliance on the adjudication report.

Any errors in the Adjudication report that are discovered after the issue of new Land Title or
Provisional Land Certificate and a new sheet of the Land Register Book shall be resolved by the chief of the Office of Land and Housing Management.

The director of the Finance Division of the province, municipality or special zone should issue the Land Title or Provisional Land Certificate immediately after 30 days from the date of notification of decision of the adjudication unit and upon receiving the documents of the land parcel from the adjudication unit, but will not issue the Land Title or Provisional Land Certificate immediately in the following cases:

1. the Adjudication Unit’s document of determination states that there is an unresolved dispute, or other problem;
2. an application, in written form, for re-consideration has been received by the director of the Finance Division from a concerned person;
3. a petition has been made to the court by a concerned person with respect to the land parcel; or
4. there is already a court order to stop any Land Title or Provisional Land Certificate issuing on the land parcel.

In the cases (1) and (2) above, the director of the Finance Division of the province, municipality or special zone will reconsider and make a notice of reconsideration in accordance with Article 28. The Land Title or Provisional Land Certificate will be issued at the appropriate time when all persons to the dispute are satisfied or the time to petition the court has lapsed without any appeal being lodged.

In the cases (3) and (4) above, the director of Finance Division of the province, municipality or special zone will not proceed to issue the Land Title or Provisional Land Certificate until receiving the final determination of the court. A note stating that the issuance is suspended by court action including the details of the concerned person will be placed on the Land File for the concerned land parcel.

The director of the Finance Division of the province, municipality or special zone, may cause a land parcel documentation to be reconsidered. The reason for the reconsideration must be stated, signed by the director of the Finance Division of the province, municipality or special zone and the document placed on the Land File for the concerned land parcel. In this case, the procedures for reconsideration of Article 28 will be followed.

**Article 31: Land Title and Provisional Land Certificate**

The director of the Finance Division of the province, municipality or special zone will issue a Land Title if it is decided that land is in type 1 or 3 as prescribed in Article 19 of this Ministerial Direction.

The director of the Finance Division of the province, municipality or special zone will issue a Provisional Land Certificate if it is decided that land is in type 2 as prescribed in Article 19 of this Ministerial Direction or if there is some doubt as location of boundary or as to the ownership or the circumstances of any under rights.

In this case, the Provisional Land Certificate is to contain a statement which specifies the information which is uncertain. A Provisional Land Certificate will also include a statement clearly mentioning the date when it can be exchanged for a Land Title. These statements will
be entered on the Provisional Land Certificate and the relevant page of the Land Register Book at the same time.

A Provisional Land Certificate is only valid for land leasing for a period not longer than 5 years and for inheritance.

**Article 32: Distribution of the Land Title or Provisional Land Certificate**

The chief of the Office of Land and Housing Management of the province, municipality or special zone will notify the person named in the Land Title or Provisional Land Certificate as the owner of the land use right when the Land Title or Provisional Land Certificate is ready for distributing. The notification may be through the village head or other suitable means.

The notification will state the place to receive the Land Title or Provisional Land Certificate and the amount of fees to be paid. If considered appropriate by the chief of the Office of Land and Housing Management of the province, municipality and special zone, a ceremony for distributing the Land Title or Provisional Land Certificate may be conducted at a suitable location.

Where there is an under right on the land parcel, such as a bank which has issued a mortgage to the person named in the Land Title or Provisional Land Certificate, then the person concerned with the under right (such as the mortgagee) will also be notified.

The Land Title or Provisional Land Certificate will be given to the person entitled to hold the Land Title or Provisional Land Certificate (such as the owner of the land use right or, in case there is a mortgage, the mortgagee) when the fees have been paid and that person signs a document of receiving the Land Title or Provisional Land Certificate showing the name of the person and the date of receiving the Land Title or Provisional Land Certificate. This document will be placed on the Land File for the concerned land parcel.

**Chapter 9: Fees and Postponement of Payment of Fees**

**Article 33: Fees and Payment of Fees**

Fees charged on the issuing of Land Title or Provisional Land Certificate are determined in a separate minister’s direction concerning the determination of fees for the issuing of Land Title or Provisional Land Certificate. The payment of fees is assessed with respect to the real conditions of the acquisition of land right and the appropriateness of the use of land. The fees will include a fee for the Land Title or Provisional Land Certificate and surveying fees.

The director of the Finance Division of the province, municipality or special zone who is in charge in the adjudication operated area will collect the fees at only one time. The collection of fees is performed during the distribution of Land Title or Provisional Land Certificate.

**Article 34: Postponement of the Payment of Fees**

In case the owner of the land use right is unable to pay the whole amount of fees or is able to pay only a part of the amount, he can submit an application to the director of the Finance Division of the province, municipality or special zone in order to request for postponement of the payment of fees.
The director of the Finance Division of the province, municipality or special zone will give a written reply to the applicant for the postponement of fees payment. If the application is approved, the latest date when payment must be made will be mentioned.

If the owner of the land use right has to pay the fees in conformity with this Article, he will have to make the payment within the period of 24 months starting from the date of authorisation for postponement.

The owner of the land use right who fails to pay the whole amount of fees within given period of time will be subjected to a fine which is fixed at a rate of 0.2% of monthly overdue amount of fees.

When the director of the Finance Division of the province, municipality or special zone has received the application for postponement of the payment of fees, he will give authorisation for the request and will mention the detail in the Land Register Book and on the back of the Land Title or Provisional Land Certificate, of the concerned land parcel for which fees have to be paid and the amount of fees.

In case the owner of the land use right wishes to give as inheritance, to put on lease, to use as share or to purchase and sell his use right to another person, he or she will, firstly, pay the full amount of overdue fees.

**Chapter 10: Actions Against Violator**

**Article 35: No Sanction Will be Taken Against Personnel of Adjudication Unit**

If a person of the Adjudication Unit has sincerely carried out his or her function, he will not be held responsible of the damages caused by his unintentional actions because the occupier and owner of the land use right did not tell the truth and did not report fully or sincerely to the Adjudication Unit.

**Article 36: Action Against the Adjudication Unit Personnel**

Any personnel of the Adjudication Unit who misuses his function and power and performs the work not in conformity with this Ministerial Direction will be subjected to disciplinary sanctions or will be, in cause of severe violation, brought to court proceedings according to the law.

**Article 37: Other Individuals**

Any person who conceals the truth during the declaration of data on land, will be held responsible before the law of whatever consequences which may arise later.

Any person who destroys, damages or moves a survey marker (base station, geodetic points or other survey objects) without authorisation by the Office of Land and Housing Management will be notified to come to the head of village office and will get a warning. If the concerned person has caused any loss to the State’s interest or the individual’s he must pay compensation for the loss and for the new survey of the boundary. If he refuses to pay, a court action can be taken against him.
Chapter 11: Implementation

**Article 38:** Guides for Implementation

In order to ensure a good result from this Ministerial Direction, and, based on proposals made by the Director of Department of Land and House Management, the Cabinet Director of the Finance Ministry will issue a Guide on implementation of this Ministerial Direction.

**Article 39:** Design of Application Forms

The Director of Department of Land and House Management will formulate standard designs of forms concerning survey and adjudication works in order to facilitate the implementation of this Ministerial Direction. All persons of adjudication units and Office of Land Management must use the standard forms.

**Article 40:** Implementation

The Finance Ministry Cabinet, Department of Land and House Management, Finance Divisions of the provinces, municipality or special zones and other concerned parties will be charged of the implementation of this Ministerial Direction according to their functions.

**Article 41:** Effectiveness

This Ministerial Direction is effective from the date of signature. Other previously promulgated regulations which are not conforming with the provision of this Ministerial Direction will be cancelled.

Minister of Finance

Khamphoui KEOBOUARAPHA
THE FORESTRY LAW

Adopted by the National Assembly 11 October 1996
Promulgated by the President of the State 2 November 1996
Effective 2 November 1996

Supplants:
Decree No. 169/PM, 6 November 1993, regarding the Administration of Forests and Forest Lands; and Decree 186/PM, 12 October 1994, regarding the Division of Land and Forests for Tree Planting and Forest Preservation.

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Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

National Assembly

DRAFT

No. 04/96

RESOLUTION

of the

NATIONAL ASSEMBLY

of the

LAO PEOPLE’S DEMOCRATIC REPUBLIC

On the adoption of the Forestry Law

Resolved:

Article 1: To adopt the Forestry Law by unanimous vote.

Article 2: This Resolution is effective from the day it is signed.

Vientiane, 11 October 1996
President of the National Assembly
(seal of the President of the National Assembly)
(signature)
Samane Vignaket
DEGREE of the PRESIDENT of the LAO PEOPLE’S DEMOCRATIC REPUBLIC

On the promulgation of the Forestry Law

- Pursuant to Article 53. Article 1 of the Constitution of the Lao People’s Democratic Republic;

- Based on the Resolution of the 9th ordinary session of the National Assembly, IIIrd Congress on the adoption of the Forestry Law No. 004, dated 11 October 1996.

- Pursuant to the proposal of the Standing Committee of the National Assembly No. 08/SCNA, dated 16 October 1996.

The President of the Lao People’s Democratic Republic issues this decree to:

Article 1: Promulgate the Forestry Law.

Article 2: This Decree is effective from the day it is signed.

Vientiane, 2 November 1996

(seal of the President of the State)

(signature)

Nouhak Phoumsavan
The Forestry Law

Part I

General Provisions

Article 1: Function of the Forestry Law

This Forestry Law determines basic principles, rules, and measures relative to the administration, maintenance, use of forestry resources and forest lands, promotion of rehabilitation, planting and propagation of forestry resources in the Lao People's Democratic Republic in order to balance nature, make forests and forest lands a sustainable source of sustenance and used by the people, ensure the protection of water resources, preventing soil erosion, protecting flora, trees, aquaculture and wildlife and the environment, contributing to national socio-economic development for continually increasing wealth.

Article 2: Forests

Forests are a precious national natural resource comprise of flora, multiple types of trees which grow naturally or which are planted and the existence of which is necessary for the preservation of the environment and the existence of humanity.

Article 3: Forest Resources

Forest resources are resources which have life and which do not have life which are comprised of soil, flora, trees, water, marine animals, wildlife, etc., which are all in the area of forest land.

Article 4: Forest Land

Forest lands are all parcels of land which do or do not have forest coverage which the State has determined are forest lands.

Article 5: Ownership Relative to Forests and Forest Lands

Natural forests and forest lands are the property of the national community whom the State represents in the administration and allocation of individual use and reasonable organization. Individuals and organization shall be the right to possess and use any tree, natural forest and forest land provided only that (they) have received approval from the relevant authorized agency.

For trees and forest which individuals or organizations have planted or have rehabilitated by their own labors or funds with the acknowledgement of the State, [such shall be considered] the property of the planter or the rehabilitator who has the right to possess and use, to receive the results of, transfer and succeed to [the interests thereof] according to the laws and regulations.

Article 6: Promotion of the Preservation and Propagation of Forests

The State promotes individuals and organizations to participate in the preservation, rehabilitation, planting of trees and propagation of forestry resources by issuing policies, rules and measures in order to make forests and abundant, valuable and natural resource which will never be exhausted.
Article 7: Rights, Benefits Relative to Preserving and Administering Forests and Forest Land

Individuals and organizations who the State has assigned forests [or] forest lands for preservation and administration have the right to receive compensatory benefits, i.e.: use of wood, harvesting forest products, etc. according to specific regulations issued by the relevant agency.

Article 8: Obligations in the Preservation of Forests and Forest Land

Individuals and organizations have the obligation in the preservation of forests, forestry resources, forest lands, water sources, marine animals, wildlife and the environment, proper use of forests and forest lands according to regulations, to not degrade forests, to exhaust them, to issue necessary measures for the prevention of forest fires, contribute to preventing the destruction of forests by any means.

Part II

Administering Forests and Forestry Activities

Chapter 1

Administering Forests

Article 9: Administering Forests

The administration of forests is comprised of surveying, forest allocation, forestry data and statistics collection, listing, categorization, demarcation of forest areas and forest lands, planning use, issuing regulations, distribution of forest and forest land use [land] technical recommendations.

Article 10: Surveying, Allocation and Categorization of Forest Type and Area

The Government assigns the Ministry of Agriculture and Forestry to co-ordinate with relevant sectors, local authorities to conduct forest surveys and allocation, to collect date relative to forests in the entire country to categorized type, to determine area, to monitor the circumstances of forest changes, the area of forest lands and the environment.

Determination of the types of forest, the area and the forest land area for each type must principally reference the location the circumstances, the significance and the suitability of the forestry resource and forest lands existing in each geographical area of the country.

In addition, there must be a determination of forest types, the area of the forest, and forest land under central, provincial, prefectural, district, village, organizational, and individual administration.

Article 11: Administrative Planning, Forest and Forest Land Use

The Government determines the general administrative and use plans for forests and forest land throughout the country, which plan is comprised of long, medium, and short term plans which are thereafter submitted to the National Assembly for consideration and adoption.

Local authorities, with reference to the Government's general plan and actual local circumstances shall make an administrative and a use plan for forests and forest lands in their localities and shall thereafter submit such to higher authorities for adoption.

Article 12: Assignment of Forests and Forest Lands to Local Authorities for Administration and Use

After allocation and division of forest types and determining forest areas and forest lands, the Government shall assign rights to local authorities, from there the province and the prefecture shall assign to the district and the district to the village to be responsible.

Translated by: Dirksen Flipse Doran & Lè 1996 for the Ministry of Justice of the Lao PDR
In the assignment of forests and forest lands, the provincial authorities, the prefecture, the district or the village which have adjoining borders shall participate and acknowledge such.

**Article 13: Assignment of Forest and Forest Lands in Individuals and Organizations for Possession and Use**

The State assigns rights to use degraded forest lands or defoliated lands to individuals and organizations according to their labor and financial capacity to plant and rehabilitate forests for individuals the area shall not exceed three hectares for each laborer in a family. In case more is needed, [the concerned individual] has the right to lease [more] than from the State. For organizations, reference is made to actual production capacity.

For enterprises which need to use degraded forests or defoliated land to plant trees, the state shall have a specific policy on a case by case basis.

Individuals and organizations are absolutely prohibited from using dense or reed natural forests for planting their trees which [forests] can themselves grow as natural forests.

**Article 14: Transformation of Forests and Forest Land**

It is prohibited to transform forestry area or forest lands which the State administers or which the State has assigned to an individual or an organization to possess and use according to purposes provided for some other purpose. In necessary cases and for the public good there may be transformation of forests or forest land to use for some other purpose, but there must first have been approval from the relevant authorized agency.

The authorized agency in approving relevant to transformation of forest and forest lands are comprised of:

- District authorities for forest area or forest lands of three or less hectares with the approval of the Provincial or Prefectural Agriculture and Forestry Division;
- Provincial and Prefectural authorities for forest areas or fore lands in excess of three hectares to one hundred hectares with the approval of the Ministry of Agriculture and Forestry;
- Ministry of Agriculture and Forestry for forest and forest land areas in excess of one hundred hectares to ten thousand hectares with the approval of the Government;
- Government for forest and forest land area in excess of ten thousand hectares of more with the approval of the National Assembly.

**Article 15: Transformation Fees for Natural Forests or Forest Land**

When there is transformation of a natural forest or forest lands into some other purpose, whether that change is permanent or temporary, those who have received permission for the transformation must be able liable to pay fees for such transformation, modifications to the land and to replant trees; for wood and forestry resources, such are the property of the State.
Chapter 2

Categorization of Forest Type

**Article 16: Forest Types**

Forests in the Lao People's Democratic Republic are divided into the following types:

1. Protected forests;
2. Forest Reserves;
3. Production Forests’
4. Rehabilitated Forests;
5. Degraded Forests or Defoliated Land

**Article 17: Protected Forests**

Protected forest are forests and forest land which are divided for the purpose of protecting water sources, preventing soil erosion, strategic areas for natural defense, prevention of natural disasters, the environment, etc.

**Article 18: Forest Reserves**

Forest reserves are forests and forest lands which are separated for the purpose of preserving species of flora and fauna, nature and other precious things in terms of history, culture, tourism, the environment, education and experimental scientific research.

**Article 19: Production Forests**

Production forests are forest and forest lands which have been separated to provided for the requirements of national socio-economic development and peoples’ regular and continual daily living needs in terms of wood and forest derived products which do not seriously affect the environment.

**Article 20: Rehabilitated Forests**

Rehabilitated forests are young reed forests which are separated for rehabilitation and complete restoration into old natural reed forests.

**Article 21: Degraded Forests**

Degraded forest are forests which have been heavily damaged, i.e.: the land area has no forest [coverage] or the are is defoliated which is separated for reforestation or to assign to an individual and to an organization to use for reforestation, and to organize reforestation, permanent agro-forestry and livestock production or use for some other purpose according to the national socio-economic development plan.

Chapter 3

Administration of Forestry Activities

**Article 22: Forestry Activities**

Forestry activities are all undertakings relative to forests and forest resources perform in or outside of forest areas and forest land, i.e.: surveys, design, planting, rehabilitation, maintenance and preservation, forest development, exploitation, moving wood and wood products, processing, protection of forestry resources, preservation of water sources, forest related natural environment and propagation of species of flora, species of trees and marine animals including stopping dry rice cultivating forests [and encouraging relevant individuals] to undertake fixed occupations.
Article 23: Undertaking Forest Activities

Individuals or organizations may undertake any forestry activity provided only that approval has been received from the relevant forestry administration agency.

Article 24: Registration of Forestry Activities

Registration of forestry activities shall be conducted according to the Business Law promulgated by the State.

Part III

Regulations for the Use of Forests and Forest Land

Chapter 1

Exploitation of Wood and Forest Derived Products

Article 25: Exploitation of Wood and Forest Derived Products

Exploitation of wood and forest derived products can be undertaken specifically in production forest which have been surveyed and allocated and surveyed for exploitation, [and] only in areas which forestry exploitation has been planned in order to ensure that the exploitation of wood is continuous and exploitation can be repeated in areas which have already been exploited.

The exploitation of wood must be performed according to the following principle regulations:

- use of selective cutting, clear cutting is prohibited except in necessary cases;
- cutting of pre-determined trees to ensure continuity of species;
- cut trees must be collected to utilize for maximizing [wood] value;
- cut trees according to technical [standards];
- cut trees by restricting destruction of surrounding trees, ensuring that there will be no environmental impact, soil erosion or drought,
- after cutting, the forest must be maintained and protected or reforested;

For the exploitation of forest derived products, i.e.: mushrooms, roots, bulbs, vine, sprigs, shoots, leaves, flowers, fruits, bark, oils, sap, etc., shall be performed according to specific regulations issued by the relevant authorized agency.

Article 26: Moving Wood and Forest Derived Products

Moving wood and forestry derived products must be undertaken according to regulations, i.e.: payments for resources, each log must be marked and stamped, be accompanied by removal documents, be removed according to a pre-determined road and must be declared at the declaration post.

Article 27: Cutting of Self-Planted Trees

Cutting of self-planted trees for family use shall be reported to the village administrative authorities for notice and inspection.

If wood is to be moved to another district, a report must be made to the district forestry officials for inspection.

For the cutting of trees as commodities, approval must be obtained from the Provincial or Prefectural Agriculture and Forestry Division by a request through the District Agriculture and Forestry Office.
Article 28: Wood Exploitation and Harvesting Wood Derived Products from Controlled Forests and Village Use for Family Consumption

Cutting trees in village production forests for building, repairs and family consumption is allowed but in the area of village production and of wood types which are not prohibited of which the volume does not exceed five cubic meters, one log per family which needs [the wood] which must be cut from a pre-determined area and undertaken according to regulations issued by the village administrative committee. Harvesting forest derived products for family consumption shall be pursuant to village regulations as adopted by the District Agriculture and Forestry Office.

Article 29: Export of Wood and Forest Derived products Abroad

The export of wood and forest derived products abroad must be pursuant to regulations, i.e.: received Government approval, exported pursuant to an approved amount and via an approved [export] post.

Article 30: Customary Use of Forests and Forest Lands

Customary use of forests and forest lands is the use of the forests, forest lands and forest derived products which have been undertaken for a long period of time and which are recognized by society or by law by which the harvesting of wood which is not of a prohibited type to make fences, for firewood, harvesting forest derived products, for hunting and for harvesting marine animals which are not prohibited for family use and for other customary uses. Such customary use shall not cause damage to forests or forest resources and are not to prejudice the rights and benefits of individuals or organizations.

The customary use of forests, forest lands and forest derived products must be undertaken according to regulations regarding forest and forest land issued by village administrative authorities in compliance with the special objectives of the village from time to time and which are proper and in accordance with Article 63 of this law.

Chapter 2

Forest Industries and Forest Derived Products

Article 31: Establishment and Undertakings of Wood or Forest Derived Products Processing Plants

The establishment of wood processing plants or processing plants for forest derived products must be undertaken strictly pursuant to regulations regarding the establishment of wood processing plants or processing plants for forest derived products and must have received approval from the Ministry of Agriculture and Forestry and other relevant agencies. The undertakings of such plants must be according to regulations, i.e.: use of proper raw materials and maximization of utility, proper distribution of processed products according to regulations.

Article 32: Administration of Wood Exploitation Machinery and Wood Processing Machinery

The importation and distribution of all types wood exploitation machinery and wood processing machinery must be approved by the Ministry of Agriculture and Forestry and must be pursuant to other relevant regulations.

The possession and use of wood cutting machinery and wood chopping machinery must be registered with the Provincial or Prefectural Agriculture and Forestry Division.
Chapter 3

**Planting and Rehabilitating Trees**

**Article 33: The Purpose of Planting and Rehabilitating Forests**

Planting and rehabilitating forests is to preserve and to propagate national forest resources in order to provide for a non-exhaustible wood and forest derived products use, to protect water sources, land, marine animals, wildlife and the environment for a balance as well as being significant State, organizational and individual revenue.

**Article 34: Promotion of Tree Planting**

The state promotes individuals and organizations to widely plant trees and as groups, whether [planting specific] species of flora, short term, medium term or long term species by issuing various suitable policies for domestic and foreign investment, i.e.: credit policies, taxation, species of flora and trees, lease extensions as well as increasing the leasehold area, etc., pursuant to regulations.

**Article 35: Promotion the Rehabilitation of Reed Forests**

Individuals or organizations who have preserved and rehabilitated reed forests and have restored them as dense forests by restoring the forest, forbearing from clearing land for dry rice cultivation, from cutting trees and from burning such forest, shall receive special commendations and privileges from the Government, i.e.: credit and tax privileges.

**Article 36: Location and Species of Trees to be Planted**

The planting of trees principally shall be conducted on degraded lands, vacant land, defoliated lands which have been allocated and lands where there has been approval for cutting trees for which there are plans to sue such for some other purpose.

**Article 37: Plans for Planting Trees and Rehabilitating Forests**

Reference the Government's forestry development plans, local forestry agencies under the recommendation of local administrative authorities shall be responsible for drafting planting plans and for short term, medium term and long term rehabilitation of forests within their own localities, including express provisions regarding species of trees to be planted, locations, and areas for planting or rehabilitation, both in rural and urban areas, as well as those who will conduct the planting or rehabilitation and the budget for planting, rehabilitation, and preservation.

**Article 38: Regulations for Planting and Rehabilitating Forests**

In order to make the conditions of planted and rehabilitated forests be proper and in accordance with standards as issued by the Forestry agency, it is necessary to ensure proper and appropriate planing and rehabilitation techniques.

The Ministry of Agriculture and Forestry has the duty to issue various regulations to promote and administer techniques and nature studies relative to the natural succession of species, production of species and planting selective cutting, clearing forests, and other technical measures relative to planting and rehabilitating forests.

Chapter 4

**Marine Animals and Wildlife**

**Article 39: Marine Animals and Wildlife**

Marine animals and wildlife living naturally in the territory of the Lao People's Democratic Republic are the property of the national community, of which the State is the central administrative representative.
and which is uniform throughout the country. The State assigns rights and responsibilities to Lao citizens to preserve, propagate species and use such animals according to laws and regulations of the State and to ensure the continuing increase in the number of marine animals, wildlife.

The State will determine types of restricted and unrestricted marine animals and wildlife according to specific terms which a relevant agency will issue.

**Article 40: Having Possession of, Hunting, and Removing Marine animals and Wildlife**

The possession of certain aquatic animals and wildlife shall be first authorized by the relevant authorities.

Certain categories of animals may be caught or hunted, however, it is prohibited to hunt during prohibited seasons or in prohibited areas; it is prohibited to use equipment with destructive features such as: bombs, poisons, electricity, etc.

For the animals in prohibited categories which are close to extinction, it is absolutely prohibited to catch or hunt them except for necessary study and research purposes and which is necessary since that animal will injure people. Before or after killing approval must be requested or there must be a report to the relevant authorities. The animals killed will become the property of the State.

It is prohibited to remove, export, import, or buy or sell prohibited marine animals and wildlife whether dead or alive, including animal carcasses or any part of that animal, except if approval has been received, but such must be undertaken according to regulations. Significant hunting implements such as any type of hunting guns must have received approval and be registered.

**Chapter 5**

*Preservation of Forests*

**Article 41: Preservation of Protected Forests**

To protect water sources, to prevent erosion, strategic national defense areas, to protect against natural, environmental and other disasters, it is necessary to strictly protect protected forests e.g.: it is prohibited to practice dry rice cultivation, to cut, to destroy, to burn, to move the trees, to cut wood for fuel wood, to raise live stock [in the forest], erect houses, build other activities, including digging soil, rocks or minerals, hunting or collecting prohibited animals or forest products.

**Article 42: Preservation of Forest Reserves**

To protect forests in order that they be abundance, as well as vegetation, animals species, and biodiversity for sustainability and expansion while allowing forests, the beautiful natural panorama for development national parks appropriate for tourism and scientific research and experimentation, it is necessary to protect reserved forests and reserved forests must be divided into absolutely prohibited areas, areas of controlled use and border areas.

**Absolutely prohibited areas:** are forest areas and forest lands which are places where animals live, forage, and propagate their species and are places where there are many dense species of flora. It is absolutely prohibited to undertake forestry activities and to collect forest products in this area, including entering into that area without authorization. The removal of flora and fauna is similarly prohibited provided only if special authorization has been granted by the local administrative authorities and the Ministry of Agriculture and Forestry.

**Areas of Controlled Use:** are forest areas or forest lands which adjoin or are near to areas which are absolutely prohibited, in which areas public use is restricted relative to harvesting wood, forestry products and game hunting which will be defined in detail in specific regulations in order to give effect to such absolutely prohibited area.
Adjoining Areas: are forest trails or forest lands which are serve as animal trails connecting reserved forests or between reserved forests and other types of forests to preserve the existence and the expansion of wildlife. In that area, it is prohibited to hunt animals, to cut wood, to carry on forestry activities or other activities that can be obstruct or which can destroy animals trails.

Article 43: Preservation of Flora, Species of Marine Animals, Wildlife Outside of Forest Reserve Areas

Trees species, aquatic animals species, rare wild life, nearly extinct or having special value which are outside of the preserved forest shall be protected as well as in side the preserved forest that the forestry management agency in collaboration with the local authorities have outlined the specific regulations.

It is absolutely prohibited to export the said trees species or animals species except it is specially authorized by the Ministry of Agriculture and Forestry only.

Article 44: Protection Against and Prevention of Tree Species Diseases and Insects

The forestry management agency concerned shall be responsible in the study of data on the occurrence and the epidemic of the disease and the worms, organize the protection and control the epidemic of the vegetation disease and the worms in their forest are by coordinating with other relevant work units, shall be responsible in discriminating the category of seeds or seedlings free of disease, create free of disease zone and protecting zone, set up institute to ensure the issuance of production management certificate, the distribution and the use of the seeds free of disease.

To restrict the epidemic of trees species disease and worms, it is absolutely prohibited to import or remove trees species affecting the said disease.

Article 45: Protection and Prevention of Forest Fires

The prevention and restriction of forest fire are common duties responsibilities the forestry management agency and local authorities have duties to train the people to be aware about the danger of forest fire and outline the regulations and take necessary measures so that forest fire can not be occurred.

In case of forest fire, the local authorities and the forest management agency shall be enterprising to solve the problem by mobilizing the vehicles, materials, equipment, labors of all factors to put out the fire. Upon putting but the fire, the vehicles, materials, equipment shall be delivered to the initial owner or indemnify the cost of the vehicles, materials, equipment according to the appropriateness. The individuals and organization including the defense forces shall collaborate with local authorities in putting out the fire very thoroughly and promptly.


To build up an awareness of a love for and sustainable preservation of forests, marine animals, wildlife and the natural environment for the people of the many ethnic groups, the State has determined the 1st of June as National Arbor Day.

Authorities at all levels must co-ordinate with relevant sectors. Be enterprising in planning and widely mobilizing all labor forces, and capital from all parties, including the armed forces, civil servants, primary and secondary students, and people to participate in planting trees. After planting, attention must be paid to the maintenance and protection of the planted trees so that they can grow and develop.

Besides National Arbor Day, the State has determined that the 13th of July as National Fishery and Marine Animal and Wildlife Protection Day. As for the methodology and measures in the organizational implementation of National Fishery and Marine Animal and Wildlife Protection Day is to
be carried out similarly to National Arbor Day. Actual tree planting and the release of fish can be carried out all year.

**Article 47: Forestry and Forestry Resources Development Fund**

To ensure the forestry protection, work forestalled and forestry resources to be conducted very effectively, the state has created forest and forestry resources development funds.

The source of forest and forestry resources development funds is derived from the state budget and the individual, juridical person, collective, social organization, intonation organization contributions and others.

The forest and forestry resources development funds are to be used particularly in the forestry works mainly the protection of protected forest and preserved forest, plantation and forest rehabilitation to protect water-shed and environment, to protect and develop aquatic animals and wild life, propaganda, training about the policy, regulations, laws and forestry tectonics, protection of water-shed environment and others in connection with the forest and forestry resources.

For the organization, management and activities of forest and forestry resources development funds, there will be specific regulations.

**Part IV**

*Rights and Obligations of Forest and Forest Land Users*

**Article 48: Obtaining the Right to Possess and Use Forests and Forests Lands**

Possession of forest and forest land is derived from:

- the transfer;
- the deliver;
- the succession

**Article 49: Rights of those who Possess and Use Forests and Forest Lands**

The possessor of the forest and forest land has right to possess, use, benefit usufruct, transfer and succeed the forest and forest land.

As for the state organization has the rights to manage, use and protect according to the regulations.

**Article 50: Assignment of the Right to Possess and Use Forests and Forest Lands**

Assignment is the decision of the competent agency to assign the forest and forest land to the individuals 85% and organization for the possession and long term use and have the tranquillity according to the contract and specific regulations.

**Article 51: Rights to Possess and Use Forests and Forest Lands**

Possession of forest and forest land are the rights to protect, use the forest and forest land that one has acquired. As for the right of using the forest and forest land are the rights to use the forest and forest land according to the target set to satisfy the requirement of the possessor.

**Article 52: Rights to Receive Benefits from Forests and Forest Lands**

Rights to benefit usufruct from the forest and forest land are the rights to benefit advantages from the forest and forest land that one has developed such as: advantages from the lease, advantages from the mortgage.
Article 53: Rights to Transfer Forests and Forest Lands

The transfer is the delivery of possession of the forest and forest land that one has developed to other person to benefit the advantages that one has created. The transfer shall be notified the relevant authorities and shall undertake new registration and pay the fees according to the regulations.

Article 54: Rights to Succeed to Forests and Forest Lands

The succession, possession of the forest and forest land is the succession of the said rights to the children, nephew, nieces, father, mother, or the relatives after the possessor of the forest land was dead. The succession must be notified the relevant authorities and shall undertake new registration and pay the fees according to the regulations.

Article 55: Customary Rights to Use Forests and Forest Lands

Customary rights to use forests and forests land is to be performed according to Article 30 of this Law.

Article 56: Lease of Forests and Forest Lands

Forests and forest lands may be leased or licensed to individuals and enterprises for planting, preservation, and extraction activities, and to use by a relevant agency approving and contracting for such according to regulations.

Article 57: Obligations of those who Use Forests and Forest Lands

Users of forests and forest lands have the following obligations:

- To properly use forests and forest lands according objectives as determined and in accordance with a contract and the law;
- To use all means to preserve and develop forests and forest lands for continuous abundance;
- To us forests and forest lands while preserving water sources, marine animals, wildlife and the environment;
- To pay royalties, forest fees, and rental for forest land according to regulations and law;
- To report and provide data to the forest management authorities, local authorities and the government on the use of forests and forest lands.

Article 58: Expiration of the Right to Possess and Use Forests and Forest Lands

Rights to possess and use forests and forest lands may expire in the following cases:

- Forfeiture of the right to possess and use;
- Transfer of the right to possess and use;
- Withdrawal of the right to possess and use.

Part V

Forestry Administration and Inspection Agencies

Chapter 1

Forest Administration Agencies

Article 59: Forestry and Forestry Activities Administration Agency

Forests and forestry activities administration agencies are comprised of the Ministry of Agriculture and Forestry, the provincial and prefectural Agriculture and Forestry Divisions, the district Agriculture and Forestry Office, and village administrative authorities.
Article 60: Rights and Duties of the Ministry of Agriculture and Forestry

In the administration of forests, forest lands and forest activities, the Ministry of Agriculture and Forestry has the following principal rights and duties:

1. Be the governmental logistics center in developing and propagating strategic policy guidelines and Party and State policies into work programs, detailed projects and regulations and laws to administer forest lands, water sources, marine animals, wildlife and forestry activities throughout the country;
2. Conduct technical scientific forestry research, create a statistics center network and information on forests, forest lands, forestry resources and water resources;
3. Co-ordinate with relevant parties and localities to survey the natural forestry potential in order to categorize forest areas; determine areas for forest preservation, types of wildlife and marine animals to be preserved as well as organizing the preservation of forestry resources and the natural environment relative to forests;
4. Research and issue opinions regarding investment in forestry activities;
5. Research and train and upgrade forestry technocrats;
6. Consider the conversion of forests or forest lands as determined in Article 14 of this Law;
7. Cooperate with foreign parties with respect to forestry activities.

Article 61: Rights and Duties of the Provincial and Prefectural Agriculture and Forestry Division

In the administration of forests, forest lands, and forestry activities, the provincial Agriculture and Forestry Division has the following principle rights and duties:

1. Be the direct logistics coordinator to the Ministry of Agriculture and Forestry and the provincial and prefectural administrative authorities in researching, directing, planning, inspecting and vertical and horizontal macro-organization regarding forests within the scope of its responsibility under the supervision and inspection of the provincial governor and the mayor of the prefecture;
2. Co-ordinate with relevant parties in its locality. Conduct surveys of the natural forestry potential in order to allocate forest areas, determine natural preserves, types of wildlife and marine animals which must be preserved as well as organizing preservation of forestry resources and the natural environment relative to forest within its scope of authority.
3. Research and issue opinions regarding investment in forestry activities;
4. Issue license for the exploitation of wood, forestry products as approved by the Government and according to specific regulations;
5. Consider the conversion of forests or forest lands as determined in Article 14 of this Law;
6. Administer and register wood cutting machinery and all types of game hunting guns.

Article 62: Rights and Duties of the District Agriculture and Forestry Office

In the administration of forests, forest lands, and forestry activities, the district Agriculture and Forestry Office has the following principle rights and duties:

1. As the logistics coordinator for the provincial and prefectural Agriculture and Forestry Division and district administrative authorities in researching and implementing plans, work plans, projects, provisions, regulations, orders and notices and instructions of the Ministry of Agriculture and Forestry and the provincial and prefectural Agriculture and Forestry Division under the management of the district chief.
2. Be responsible for organizing people at the village level, manage and preserve forests and forests land, organize the assignment of forest lands and degraded forests or defoliated land to people and families at every village to plant or assign reed forests to rehabilitate or maintain them so that they become dense and abundant, while also protecting forestry resources, forests protecting water sources, marine animals, wildlife and protecting the natural environment relative to forests.
3. Monitor and inspect the adherence to regulations relative to cutting trees, processing wood, and forestry products, game hunting, fishing and selling wildlife.
4. Research and issue opinions relative to investment in forestry activities.
5. Consider the conversion of forests or forest lands as provided for in Article 14 of this Law.

Article 63: Rights and Duties of the Village Administrative Authorities

In the administration of forests, forest lands, and forestry activities village administrative authorities have the following principles rights and duties.

1. Organize the implementation of the district's directives regarding the forest, forest land and forestry activities;
2. Implement the assignment of village forests and forest lands for individuals and inter village organizations, administer, preserve, rehabilitate, plant, propagate and make effective use according to contract, according to plan and approved regulations from the district Agriculture and Forestry office.
3. Publicize, educate, and train regarding the significance and benefits of forests, forest lands, marine animals, wildlife, water resources and the natural environment so that people in their villages actually understand [such significance].
4. Monitor and record the conditions of change in forests, the environment and the circumstances of the undertaking of forestry works in their villages, and thereafter report such to the district Agriculture and Forestry Office.
5. Appoint people to administer forests and forest lands within its village area.
6. Draft specific administrative regulations, for preservation of forests, water sources, marine animals, wildlife and the natural environment within the village for consistency with the actual conditions of that village.
7. Establish fixed occupations for people of its villages in order to restrict and progressively cease the cutting and destruction of forests and protection of the natural environment, making forests and forestry resources return in abundance.
8. Consider approval for peoples cutting of wood within its own village according to regulations.
9. Monitor and inspect and prevent the hunting of game and the illegal buying and selling of wildlife.
10. Be enterprising in timely fighting bad activities impacting forest resources, water sources, and the environment such as: illegal logging, burning forests and restricting all acts which are detrimental to the forest resources, marine animals, wildlife and water sources.

Chapter 2
Forest Inspections

Article 64: The Purpose of Forest Inspections

Inspection is the follow-up and observation of the activities, administration and use of forests and forest lands by individuals, organizations, enterprises and forestry authorities so that such may be effectively and properly carried out in conformity with forest regulations, law and other laws of Lao PDR to protect and develop forests, forest lands, and forestry resources.

Article 65: The Forestry Inspection Agency

The forestry inspection agency is an agency established under the same system as the forestry administration agency as provided for Article 59 of this law.

Article 66: Types of Forest Inspections

There are three types of forestry inspections:

- Regular systematic inspection;
• Inspection by advance notice;
• Surprise inspections;

Regular systematic inspection is inspection which has features of regular inspections with specific times which must be conducted at least once per year.

Inspection by advance notice is inspection when deemed necessary by notifying parties responsible for or who are conducting forestry activities at least twenty-four hours in advance.

Surprise inspection is inspection when deemed necessary but such inspection is conducted urgently without advance notice to parties responsible for or who are conducting forestry activities.

Inspections are to be conducted for the inspection of documents and on site inspection of actual activities.

**Article 67: Rights and Duties of Forest Inspection Agencies**

The Forestry Inspection Agency has the following principal rights and duties:

1. Inspection of documents and inspect activities on site.
2. Order those inspect to cooperate and to provide data to it within a specific period of time.
3. Implement measures regarding inspection such as: entering into to inspect a location, order the suspension of activities, issue orders prohibiting the removal of items to be inspected etc.
4. Apply measures regarding violations of forest laws such as: reeducation, fines, taking into custody or arresting offenders, seizing paraphernalia of the offense, take legal action against offenders according to the law;
5. Request assistance from individuals and State and social organizations including the armed forces in the execution of its inspection duties, such individuals and organizations have the duty to cooperate appropriately with inspection officials.

In conducting inspections, forestry officials must execute such in conformity with regulations and the law.

**Part VI**

*Privileges [Granted to] Productive Persons and Measures Against Offenders*

**Article 68: Privileges for Productive Persons**

Individuals, organizations or enterprises having exemplary deeds in the protection, management, plantation, forestry rehabilitation and preventing forest destruction and forestry resources will receive commendations and privileges provided by the government such as: bonuses, credit privileges, taxes, duties, extension of lease, increase in the leased area, etc., according to regulations.

**Article 69: Measures Against Violators**

The principal measures against violators of the forest law are the following:

• Reeducation;
• Fines;
• Criminal punishment

In addition, there are additional punitive measures.

**Article 70: Education and Training Measures**
Education and training measures will be applied to the following first offense violations, causing the damages of less than Kip 50,000 in value;

1. Clearing forests for dry rice cultivation outside the scope of authority for clearing or dry rice cultivation inconsistent with regulations;
2. Cutting of wood fuel, wood fence posts, wood for construction purposes, for family consumption inconsistent with regulations;
3. The harvesting of forestry products in prohibited areas or harvesting which is inconsistent with regulations;
4. Hunting wildlife or harvesting marine animals in prohibited category in prohibited areas or during prohibited seasons;
5. Having possession of prohibited wildlife inconsistent with regulations;
6. Having possession of game hunting weapons inconsistent with regulations;
7. The harvesting of forestry products in prohibited areas or harvesting which is inconsistent with regulations;
8. The use of forest lands inconsistent with regulations;
9. Failure to cooperate with forestry authorities who are performing their duties;
10. Failure to report use and data to forestry authorities regarding forests and forest lands;
11. Other minor violations.

Article 71: Fines

There shall be fines equal to twice the cost of damages, the cost of the goods or the offending materials or the cost of remedying [the damages], the costs of the resources, fees or rental for any individual who commits the following offenses:

1. For the first offense as referred to in clauses 1, 2, 3, 4, 5, 6, 7, and 8 of Article 70 above of which the value of damages is from Kip 50,000 to Kip 500,000 or such act is a second offense with a value of less than Kip 50,000;
2. The import, sale, having in possession of wood harvesting or wood processing machinery without having received approval;
3. Having in possession, remove or export wood or forestry products inconsistent with regulations;
4. Using raw materials of wood processing factories inconsistent with regulations;
5. Failure to pay royalties, forestry fees or rental for forest land;
6. Hunting wildlife or harvesting marine animals in prohibited categories having a value not exceeding Kip 500,000;
7. Taking over forest lands without having received approval;
8. Converting forest lands without having received approval;
9. Use of forest lands inconsistent with objectives as determined [for such use].

Article 72: Criminal Measures

There shall be punishment of deprivation of liberty from three months to five years and there shall be a fine of twice the value of the goods or material or of the damage costs [against] an individuals who commits the following offenses:

1. Cuts wood, clears and burns forests, the damages of which exceed Kip 500,000 or is an act which is a repeated offense of three or more instances and the damages of each instance is not in excess of Kip 500,000.
2. Hunts species of wild animals or marine animals which are prohibited, i.e.: the Ba ox, the Cao La ox, wild buffalo, elephants, the long tailed gray monkey (Presbytis phagrei or Presbytis francoisi laotum Thomas), khadaeng??, dolphins, etc., as determined by the relevant agency;
3. Indiscriminate hunting of wild animals or harvests marine animals with explosives;
4. Three or more instances of importing, selling or having in their possession wood cutting machinery or wood chopping machinery as provided for in Article 32, paragraph 2 of this Law without having received approval, or importing, selling or having in their possession
such machinery to harvest wood or to process wood.

There shall be punishment of six months to five years for employees [civil servants] who approve the cutting or removal of trees for which [he/she] has no right to approve or issue a license to cut trees in excess of what was approved, improperly approving the conversion, assigning or transferring forest lands in contravention or regulations and the laws or taking advantage of [his/her] position and title for [his/her] personal benefit or receiving bribes.

**Article 73: Additional Punitive Measures**

In addition to the principal penalties provided for in Article 70, 71 and 72 above, violators may receive additional punishment, i.e.: suspension or withdrawal of the license, withdrawal of the right to possess and use a forest, to replant trees, equipment, vehicles, and items involved in the offense will be nationalized.

**Part VII**

*Final Provisions*

**Article 74: Implementation**

The Government of the Lao People's Democratic Republic is assigned to issue detailed regulations and to implement this law.

**Article 75: Effectiveness**

This law shall be effective from the date that the President of the Lao People’s Democratic Republic issues a Decree to promulgate it.

This law supersedes Decree 169/PM, dated 6 November 1993 regarding the Administration of Forests and Forest Land and Decree 186/PM, dated 12 October 1994 regarding the Division of Land and Forests for Tree Planting and Forest Preservation.

Additionally, all other provisions conflicting with this Law are hereby canceled.

Vientiane, 11/10/1996
President of the National Assembly

[seal of the President of the National Assembly]
[signature]

Samane Vignaket
Order of the Prime Minister on Forest Management Policy for year 2002 - 2003

To: Minister of Agriculture and Forestry, Provincial Governors, Vientiane Municipality Governor and Head of Special Zone throughout the Country.

- Based on the Law on Government of the Lao PDR No. 01/95, dated 6 March 1995.
- Based on the Law on Forestry No. 01/95, dated 11 October 1996.
- Based on the Study and the Proposal of the Minister of Agriculture and Forestry, dated 0124/AF, dated 22 August 2002.

The Prime Minister orders the following:

1) The Ministry of Agriculture and Forestry must perform a survey of the forest coverage throughout the country in order to divide and determine different types of forest areas based on the current situation, to determine areas where logging should be banned, to establish a strategic plan related to sustainable forestry preservation to ensure that forestry resources will not become extinct

   - The Government will restrict the logging quotas of natural forest in the year 2002 - 2003 and in the subsequent years. Logs from natural forest must be semi or fully processed before they are sold domestically or exported for the purpose of generating foreign currency for the national budget.
   - The logging and sale of logs must be in compliance with Articles 9 and 11 of the Prime Minister’s Decree on the sustainable management of production forest No. 59/PM, dated 22 May 2002.

2) The Government continues to ban export of logs and saw timber from natural forests. The export of logs and saw timber from plantation forest must be authorized by the government on a case by case basis.

   - It is prohibited to authorize the transit of logs and lumber from neighboring countries to a third country, unless there is an official request made by a government of the relevant country.
3) To improve the structure and the technical standard of domestic wood processing factory in accordance with industrial modernization directive taking into consideration:

- The amount of raw materials allocated by the state to each zone and province and
- The capacity of the owner of the wood processing factory to plant trees to supply his own factory.

To close down sawmills which do not meet technical standards and legal requirements.

Wood processing factories and factories that use energy from wood that wish to continue business in 2002 - 2003 and in subsequent years must use logs from plantation and must invest in fast growing trees and other species to guarantee their own source of raw materials in accordance with the following.

3.1 Factory - type 1 must have at least 15 ha of tree plantation. This type of factory has more than 200 workers. The factory machinery has a capacity of more than 200 horse power and causes a negative impact on the environment;

3.2 Factory- type 2 must have at least 10 ha of tree plantation. This factory is a medium size factory which has between 51 to 199 workers. The capacity of the machinery is between 51 to 199 horse power and does not cause a serious impact on the environment;

3.3 Factory -type 3 must have at least 5 ha of tree plantation. This factory is a small size factory which has between 10 to 50 workers. The capacity of the machinery is between 5 to 50 horse power and cause very low impact on the environment.

- A factory which does not invest in tree plantation and do not meet technical standards and legal requirements shall be closed down by an order of the Minister of Agriculture and Forestry in accordance with the regulations.

4) To make a survey of the natural forest which is destroyed due to excessive logging and illegal logging or shifting cultivation and others and to make proposals to the Government to close the forest for the purpose of rehabilitation reforestation. A survey of rare species must be made in order to declare an absolute ban on logging.

5) Ministries, organizations equivalent to ministries, provincial authorities, Vientiane municipality and the Special Zone authorities must strictly implement and control the implementation of this Order and all legislations relating to forests.

Ministries, local administration, individuals and juristic persons who are in breach of this Order must be subject to the measures prescribed in the Forestry Law and other laws.

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6) This order becomes effective from the date of its signature onwards. Any orders relating to forestry which were adopted previously and which do not conflict with this Order shall remain valid.

Prime Minister of Lao PDR

[seal of the Prime Minister of Lao PDR]
[signature]

Boungnang Vorachith
DECREE ON
SUSTAINABLE MANAGEMENT OF PRODUCTION FOREST AREAS

- Based on the Law 01/NA of 08 March 1997 on the Government of Lao PDR;
- Based on the Law 01-96 of 11 October 1996 on Forests;
- Based on the Law 02/99/NA of 03 April 1999 on Environmental Protection;

CHAPTER I
GENERAL PROVISIONS

Article 1 – Scope
This decree covers the identification, establishment, management and use of Production Forest Areas (PFA) and the key principles for monitoring the implementation of sustainable forest management throughout Lao PDR. This Decree further covers the duties and functions of relevant sectors, local authorities and villagers in participatory management of PFAs.

Article 2 – Objectives
This Decree has the following objectives:
2.1 To enhance and implement provisions of the Forestry Law covering forest areas intended to produce wood and forest products to support national socio-economic development and improve the livelihoods of local communities through the sustainable production forests management system.
2.2 To establish principles and procedures to establish PFAs throughout Lao PDR under a sustainable management system; and
2.3 To create a framework for sustainable management of PFAs based on the participation of villagers in forest management planning, management and receipt of revenues.

Article 3 – Definitions
3.1 Production Forest – means forest and forest land that has been categorized to regularly provide for the requirements of national socio-economic development and the daily livelihood needs of the pluri-ethnic people in terms of wood and forest products without substantial harm to the environment.
3.2 Production Forest Area – means a legally established area of forest meeting all criteria in the definition of production forests, consisting of different forest categories stated in Article 16 of Forestry Law eligible for activities under a system of sustainable forest management with participation of villagers.
3.3 **Production Forest Management Area (FMA)** – means a forest area or a forest land area within a PFA designated for planning, management, use and preservation under an officially approved management plan.

3.4 **The Forest Management Unit (FMU)** – means the State organization responsible for sustainable management of production forest areas of the district under the district forestry unit.

3.5 **Village Forestry Organizations (VFO)** – means an organization of villagers established in a village, chaired by village chief(s), to participate in the management of forests under the village’s responsibility.

**CHAPTER II**

**ESTABLISHMENT OF PRODUCTION FOREST AREAS**

**Article 4 – Identification of a Production Forest Area**

A forest area to be identified as PFA shall include the following key criteria:

4.1 A forest area and forest land in an appropriate location not overlapping areas allocated for other purposes or area reserved for national strategic purposes;

4.2 high concentration of forest coverage suitable for the supply of wood and forest products for production purposes; and

4.3 total size of area suitable for economically viable sustainable forest management.

MAF shall issue a regulation to determine the detailed conditions and criteria for implementation.

**Article 5 – Establishment of a Production Forest Area**

5.1 MAF shall complete and submit proposal in coordination with provinces, municipality and special zone to establish individual PFAs to the Prime Minister for approval by issuance of a Decree. Upon establishment, MAF shall demarcate management zones in cooperation with FMUs and villagers, according to regulations issued by MAF.

5.2 As the Prime Minister approves the establishment of a PFA, MAF shall preserve all records and information for review upon proposals for its modification and adjustment. Any modification of the boundaries of an established PFA shall require the Prime Minister’s approval at the recommendation of MAF.

**CHAPTER III**

**MANAGEMENT OF PRODUCTION FOREST AREAS**

**Article 6 – Delineation of Forest Management Area**

The agriculture and forestry authorities shall take the lead in coordinating with the relevant local administrative authorities the forest management areas (FMAs) based on the officially approved general PFA management plan in order to improve efficiency in forest management and generate revenues to villagers participating in production forest management. The Ministry of Agriculture and Forestry shall outlined the detailed implementing procedures.

**Article 7 – Production Forest Management Plans**

Each PFA shall operate under a specific management plan based on actual data, covering all forest categories and meeting all the objectives of sustainable management in that PFA. MAF shall issue a regulation to determine the principles for detailed preparation and approval of management plans at all levels of PFA management for nationwide consistent implementation.
Article 8 – Organization of Production Forest Management

The administrative agencies stated in Article 59 of the Forestry Law shall be directly responsible for sustainable management of the PFAs under the following basic duties:

8.1 MAF shall coordinate with relevant sectors, provinces, municipality and special zone to identify, establish, organize, monitor and inspect PFAs throughout Lao PDR.

8.2 PAFO shall directly support MAF and Governors of Provinces, Municipalities and Special Zones to implement instructions and regulations on sustainable management of PFAs under their respective responsibilities. PAFO shall also guide, monitor and control implementation within the scope of its authority.

8.3 DAFO shall organize the implementation of production forest management plans, which shall be implemented by FMUs, village forestry organizations and other relevant parties within PFAs under their responsibilities in compliance with instructions and implementation rules. It furthermore has the duty to guide, monitor and control activities within the scope of its authority.

8.4 Village Forestry Organizations shall organize the villagers’ participation to implement all sustainable production forest management activities within the scope of their capacity with FMUs under outlined instructions and regulations. Such activities include demarcation, land-use planning, pre-harvest inventories and tree marking, management planning, monitoring and control, harvesting activities, log sales and receipt of revenues and other development activities consistently with forest management agreements and plans.

Detailed roles and duties at each level of management shall be determined by MAF as provided by the Forest Law.

Article 9 – Exploitation of wood and forest products

Harvest of timber and forest products shall be conducted only in demarcated management areas under officially approval of required management plans focusing on sustainable management and based on regeneration rates and baseline data of pre-harvest inventories.

Article 10 – Restrictions in Production Forest Area

It is prohibited to conduct activities not included in the officially approved annual operation plan and any other activities in violation of the forestry law and implementing regulations concerned with forestry.

CHAPTER IV

REVENUES AND USE OF REVENUES FROM PRODUCTION FOREST AREAS

Article 11 – Principles in Log and Forestry Product Sales

11.1 The sale of logs and forest products from PFAs shall be made to processing plants under competitive prices based on market-oriented and transparent methods to receive higher prices above the prices set by the government in order to maximize revenue for the government and villagers.

11.2 Log sale decisions shall be based on a transparent method involving participation of concerned parties, including representation of village forest organizations, on an annual basis under the guidance of the Governor of each province, municipality and special zone.

Article 12 – Management of Revenues from Production Forests

The gross revenue from different activities in production forest areas shall be managed and used for common purposes, such as: remittance to the national budget; the forest development
fund; forest operation costs; and to local development funds. The proportions to be managed and used for each purpose shall be determined in accordance with the actual conditions and shall be examined and proposed by the Ministry of Finance to the Prime Minister as basic principle for implementation.

CHAPTER V
MONITORING AND IMPLEMENTING MEASURES

Article 13 – Monitoring and control of Production Forest areas
13.1 MAF shall issue a specific regulation to establish a system to monitor the implementation of long-term management and annual operational plans, forest management agreements and forestry activities in a PFA.
13.2 Where necessary, STEA shall be responsible for the independent control of the forest condition and environment in PFAs through satellite imagery and field surveys in coordination with MAF.

Article 14 – Awards and Measures against Offenders in Production Forest Areas
14.1 Any person and organization, whether public or private, with prominent achievements in participating to the management, use, preservation and regeneration of production forests will be praised and awarded appropriate treatments.
14.2 The forestry authorities and local administrative authorities at each level shall be responsible for enforcing sanctions against offenders as provided under the Forestry Law, Criminal Law and any amendments thereto. Other organizations shall cooperate with forestry officials and villagers in restricting violations and enforcing sanctions in a PFA.

Article 15 – Settlement of Disputes
15.1 If a disputes arises between parties involved in the actual management of a PFA, the relevant sectoral and administrative authorities in the jurisdiction concerned shall participate in considering appropriate, equitable and timely solutions.
15.2 If a settlement not be reached by administrative means, legal proceedings will be applied.

CHAPTER VI
FINAL PROVISIONS

Article 16 – Implementation
16.1 MAF, sectoral authorities, equal ranking agencies and administrative authorities at all levels has the authority to issue, disseminate, train and organize the efficient implementation of this Decree.
16.2 Individuals and organizations, both state and private, shall participate in the efficient implementation of this Decree.

Article 17 – Effectiveness
17.1 All Decrees and Regulations previously issued and conflicting with this Decree are superseded.
17.2 This Decree shall become effective on the date of signature.

The Prime Minister of Lao PDR
4
REGULATION ON ESTABLISHMENT AND SUSTAINABLE MANAGEMENT OF PRODUCTION FOREST

- Based on the Law 01-96 of 11 October 1996 on Forests;
- Based on the Prime Minister’s Decree 59/PM of 22 May 2002 on Sustainable Management of Production Forest Areas.
- Based on the Prime Minister’s Decree 89/PM of 22 June 1999 on Organization and Administration of Ministry of Agriculture and Forestry.

The Minister of Agriculture & Forestry issues the following regulation:

PART I
GENERAL PROVISIONS

Article 1 Objectives
This Regulation focuses on sustainable management and use of forest, NTFPs and forest land within Production Forest Areas (PFA) with participation of local authorities and villagers in order to provide the need for supply of raw timber and NTFPs for national socio-economic development without negative impact on the environment and ensure that the management, conservation and use of production forest throughout the country will be implemented according to GOL policy, legislation and technical guidelines.

Article 2 Scope
This regulation covers the principles and procedures for establishment and sustainable management of Production Forest Areas throughout the country. The principles and procedures for establishment of PFA may be applicable for all forest areas and forestland that have potential to be PFA. The principles and procedures for sustainable management shall be applicable only in the forest and forestland areas established as PFAs. Forest activities that occur within an area proposed for establishment as a PFA shall be consistent with the objectives of PFA management and other relevant legislation.

Article 3 Definitions
1. Production Forest – Production Forests are forest and forestlands, which are separated to provided for the requirements of national socio-economic development and peoples’ regular and continual daily living needs in terms of wood and forest derived products, which do not seriously affect the environment.
Production Forest Area - refers to a legally established forest area and forest land meeting all criteria in the definition of production forests, consisting of different forest categories designated according to technical guidelines and placed under the sustainable forest management system with participation from villagers.

Production Forest Area at Provincial Level – means the forest and forestland area identified within a PFA located within the boundaries of a province, municipality and special zone.

Production Forest Area at District Level - means the forest and forestland area identified within a PFA located within the boundaries of a district.

Production Forest Area at Village or Group of Villages Level - means the forest and forestland areas identified within a PFA located within one or a group of villages for the purpose of sustainable management and use.

Production Forest Management Area – means the forest and forestland area located within a PFA identified for planning of management, use, regeneration, planting and conservation according to the officially approved management plan.

Forest Management Unit (FMU) - refers to the state organization under the district’s forestry unit responsible for the sustainable management of production forest areas of the district.

Village Forestry Organization (VFO) – refers to an organization of villagers established in a village to participate in the management of forests under the village’s responsibility and chaired by the village chief.

Village Forest Management Agreement (VFMA) – means the document on management on PFA written together by FMU and VFO including the rights and responsibilities of each party in implementation, the PFA management activities, conflict resolution and revenue generation in order to achieve sustainable management objectives of the PFA.

**PART II**

**ESTABLISHMENT AND MODIFICATION OF A PFA**

**Article 4**  
Principles for Identification of a PFA

Based on primary forest inventory data and field surveys, the Department of Forestry (DOF) and PAFO(s) shall coordinate to identify forest and forest land areas to propose for establishment as PFA according to following criteria:

1. Should not be nationally designated protection or conservation forest, not cover land designated for national defense and infrastructure development such as industrial area, permanent agriculture area, road construction and others;
2. Should not cover the forest, forest and agricultural land already allocated to villagers for management and use;
3. Can cover the administrative boundary of more than one village, district and province.
4. It should be located a minimum of 5 km from the national boundaries; and
5. The area shall be a minimum of 5,000 total ha;

**Article 5**  
Procedure to Establish a PFA

The Ministry of Agriculture & Forestry shall submit proposals for establishment of a PFA to the Cabinet of the Prime Minister’s Office for consideration and approval. The technical documents certifying the importance of areas to be identified as PFAs include:
1. Report of initial surveys on the geographical and socio-economic characteristics;
2. Maps indicating locations and boundaries based on a minimum scale of 1:50,000;
3. Minutes from consultations with local authorities and organizations concerned with establishment of the PFA.

Article 6  Modification of Boundaries in a PFA
In case there is a need to modify the boundaries of a PFA, the provincial, municipal and special zone Agriculture & Forestry Office shall submit the rationales, locations and boundaries that need to be modified with regards to the PFA management plan. At the same time, concurrence is required from the districts and provinces concerned, and a proposal is then submitted to the Ministry of Agriculture & Forestry for consideration and further submission to the approval of the Prime Minister’s Office.

Part III
MANAGEMENT OF A PFA
Chapter 1 – Preparation of PFA Management and Operation Plan

Article 7  Preparation of PFA Management Plan
After official establishment of PFA, PAFO(s) and DAFO(s) shall coordinate with local authorities and villages to conduct field inventories in order to prepare a PFA Management Plan under technical supervision of DOF. The key principles for preparation of a management plan include:

1. The identification of management areas: shall divide the PFA into management areas at provincial, district and village levels based on administrative boundaries. Management areas at provincial and district levels should be located within a single province and district respectively. Management areas at village level may cover the boundaries of one or group of villages based on legislation, technical guidelines, geography and socio-cultural conditions. Apart from management areas, historical, natural and cultural properties with significant value to the country and people shall be clearly identified within a PFA.

2. The identification of boundaries for each forest category in a PFA: forest and forest land areas in a PFA shall be classified and divided based on practical forest conditions of each forest category for specific management: the areas for timber production; the areas for watershed and environmental protection; the areas for conservation and scientific research, natural sites, history, socio-cultural; natural regeneration; and others according to specific legislation.

3. To conduct the forest management inventory: shall be conducted according to technical principles and regulations issued by MAF.

Article 8  Approval and Modification of PFA Boundary
1. based on the same procedure as the original PFA management plan.
Article 9  Preparation of Operation Plans for a PFA
PAFO shall coordinate with DAFO(s) and VFO(s) in preparation of long-term (10-year), medium-term (5-year) and annual operation plans for a PFA according to legislation, the PFA Management Plan and national and local socio-economic development plans.

Article 10  Approval and Modification of Operation Plans for a PFA
1. DAFO shall approve the annual operational plans for management of a PFA at the village or group of village levels. PAFO shall approve the operational plans for management of a PFA at the district level. The operation plans for a PFA at the provincial level and comprehensive operation plan for the entire country shall be approved by MAF.
2. In case of the need to modify any operation plan in a PFA, the forest management organization concerned shall prepare the document to submit for approval by the authorized organization based on the same procedure to approve the operation plan.
3. Prior to approval or modification of any operation plan, at all levels, the effectiveness of implementation of forest activities under previous plans shall be reviewed. The operation plans shall be modified if the results of the mid-term reviews show significant change in the forestry activities and use of the forest resources.

Chapter 2 – Management Activities in a PFA

Article 11  Agreement on Management in PFA
Under supervision of PAFO(s), DAFO(s) shall advice FMU(s) and VFO(s) to make an agreement together on implementation of the management activities in a PFA according to approved Management Plan and operation plans. The agreement shall be signed by both the FMU and VFO(s) and certified by DAFO and shall be valid for a minimum term equal to the Management Plan for the PFA and may be amended upon mutual consent of both parties.

Article 12  Demarcation within a PFA
After establishment of a PFA and approval of the Management Plan, the FMU and VFO shall conduct field demarcation of the boundaries of the PFA, management use area(s) and each forest category according to data included in the Management Plan in consultation with local authorities and participation of VFO(s).

Article 13  Timber Harvesting
1. The FMU in collaboration with VFO(s) shall manage the timber harvest activities in a PFA according to principles of sustainable forest management stated in legislation and guidelines issued by the GOL and MAF.
2. Timber harvesting activities include: pre-harvest inventory, tree selection and marking, preparation of harvesting plan, implementation of harvesting plan, tree list, monitoring of harvesting and post-logging evaluation.
3. The annual allowable harvest of timber for each province shall not exceed the forest growth potential stated in the PFA Management Plan consistent with the annual operation plan(s).
Article 14    Tree Plantation and Forest Regeneration

Tree plantations and forest regeneration in a PFA shall be conducted based on collaboration between all concerned parties according to management plans, operation plans, village forest management agreement and relevant contracted parties for these activities under legislation and technical guidelines issued by the GOL.

Article 15    Conservation and Protection of Forest Resources

Forest, forest land and forest resources, especially NPAs, wildlife and aquatic species and other biodiversity values within a PFA shall be managed for conservation and flourish according to management plans, operation plans, village forest management agreement and relevant contracted parties for these activities under legislation and technical guidelines issued by the GOL.

Article 16    Management of NTFPs

NTFPs and other forest products within a PFA shall be managed, used, conserved and cultivated according to legislation and specific technical guidelines issued by all relevant authorities and include customary use.

Chapter 3 – Management of Revenue in PFAs

Article 17    Sale of Timber Harvest in a PFA

1. After GOL approval of the annual harvesting plan for the provinces, municipalities and special zone, PAFO(s) shall coordinate with concerned organizations to conduct buy/sale of timber especially with representation from: Provincial Office of Ministry of Commerce, Provincial Office of Ministry of Finance, FMU and VFOs under the supervision of the Provincial, Municipality and Special Zone Governor(s).

2. Timber buy/sale from a PFA shall be conducted according to regulations issued by the Ministry of Commerce and conducted in a transparent, competitive method for sale to wood-processing factories and parties with business license issued by relevant authorities whereby the second landing shall be the location for calculation of log price. The competitive sale price of logs shall be based on the log royalty, tree plantation fees, harvesting costs and additional revenue resulting from the competitive sale.

3. Based on the annual harvesting plan issued by the GOL and the tree list from the pre-harvest inventory and tree selection for harvesting, the Provincial Commerce Office shall sign the timber buy/sale contract, then PAFO(s) shall issue the harvesting permit for implementation within each PFA.

Article 18    Benefit Sharing from Log Sales, Harvesting in PFAs

The log royalty from the competitive sale of timber from a PFA shall be transferred to the GOL national budget. The additional revenue from the competitive sale of timber shall distributed/used according to the Budget Law in order to ensure an accurate record of the accounting within the GOL property management sector and divided into two portions:

1. First portion: Thirty percent of the additional revenue transferred to national budget as additional revenue as a natural resource royalty;

2. Second portion: Seventy-percent of the additional revenue shall be shared between the following funds:
Twenty-percent to the forest development fund, under Forestry Law, Art. 47;
Twenty-five percent to the operation costs for implementation of annual operation plan;
Twenty-five percent to the local development fund(s). This fund(s) shall be held in the village or group of villages account for village development activities to develop and improve the livelihoods of local people. These funds shall be spent according to relevant finance regulations and be consistent with development plans established by the village or group of villages and approved by the District Development Committee in coordination with DAFO.

Chapter 4 – Monitoring and Control

Article 19 Information Center
All information on PFAs and production forest management throughout the country shall be kept in MAF available to assist with monitoring and control and available for review.

Article 20 Monitoring System
1. The monitoring system for management of a PFA shall be conducted according to provisions of Chapter 2, Part 5 of the Forestry Law and specific regulations and approved Management Plan(s).
2. If STEA proposed to monitor the condition of forest resources in PFA(s), then forest management organizations at each level shall cooperate and facilitate implementation of monitoring.

Article 21 Monitoring Concept
Monitoring consists of the process to review the implementation of forest management activities such as: Management Plans, operations plans, forest management agreements, other contracts, administrative activities, financial accounts and other activities concerned with the management of a PFA.

Article 22 Monitoring Report
FMU(s) and VFO(s) shall report on the implementation of practical management of a PFA to DAFO, Provincial Forestry Sections and PAFO to summarize and submit to MAF(DOF) for one-month, three-month, six-month and annual periods. The monitoring report and control shall focus on the following activities:
1. Evaluate the success of implementation of the various plans;
2. Assess the quality of technique of use in PFA management;
3. Assess the local socio-economic development conditions; and
4. Assess the change in forest, environment and biodiversity conditions.
Chapter 5 – Organizations, Rights and Responsibilities in Management of PFA

Article 23 Establishment of FMU
Each DAFO located in a PFA shall establish FMU(s) in a PFA to be the management unit in coordination with VFO(s) to implement sustainable forest management activities in a PFA under the supervision of PAFO.

Article 24 Establishment of VFO
Under the supervision and assistance of DAFO(s), the administrative authority(s) from each village or group of villages located in a PFA shall establish a VFO to represent the villagers in participation for implementation of forest management activities and decision-making based on their level of capacity and responsibility.

Article 25 Duties and Responsibilities of DOF
1. Assist the Ministry of Agriculture & Forestry to prepare and implement the GOL policy and national program in specific projects and plans for PFA management throughout the country.
2. Identify measures to implement the Forestry Law and government orders by preparing regulations, guidelines and manuals on sustainable management of PFAs for submission to higher authority for approval.
3. Responsible for preparing the data on establishment and management of PFAs and modification of boundaries and PFA Management Plan(s) throughout the country for submission to higher authority for approval.
4. Consider and use of scientific-technical information to implement the Code of Practice on Sustainable Management, Conservation and Use of Production Forest.
5. Comment on relevant documents and plans regarding the sustainable management of PFAs for submission to higher authorities for approval.
6. Cooperate with other sectors, local authorities and other concerned organizations in implementation, monitoring and evaluation of forest management activities according to their duties.
7. Train provincial staff on forest inventory, preparation of management and operation plans, implementation of plans, monitoring and evaluations; and
8. Cooperate with international organizations to exchange technical and scientific information in order to improve technical skills in the management of PFAs and obtain funding assistance to conduct sustainable forest management of PFAs throughout the country.

Article 26 Rights and Duties of the Provincial, Municipal and Special Zone Forestry Sections
1. Directly assist DOF and PAFO(s) to prepare plans, monitoring and implementation of macro-level management of the forestry sector in PFA management within their jurisdiction;
2. Coordinate with the parties concerned in their local jurisdiction in order to manage plans, tree planting, regeneration and conservation of forest resources in a PFA;
3. Comment on various issues and documents to PAFO on establishment of FMU(s) and conduct various forest management activities in a PFA based on request by DAFO;
4. Conduct technical training of FMU staff and villagers in implementation of sustainable management of a PFA;
5. Supervise and conduct monitoring and evaluations of various forestry management activities in a PFA; and
6. Cooperate with concerned parties in implementation of duties of those involved.

Article 27 Rights and Duties of DAFOs
1. Assist Provincial Forestry Sections and FAFO in preparation of specific rules for management, conservation and use of a PFA consistent with GOL legislation and current conditions of each PFA;
2. Monitor and evaluate the management activities in a PFA;
3. Prepare annual operation plan for management area under their responsibility;
4. Conduct the technical training on sustainable management of a PFA for the staff and villagers;
5. Implement various orders issued by higher authorities on management, conservation and use of a PFA;
6. Report to PAFO on the management and implementation of activities according to their specific rights and duties; and
7. Coordinate with concerned parties in implementation of management of a PFA.

Article 28 Rights and Duties of FMUs
1. Are Technical Units to manage, conserve and use production forest under their responsibility.
2. Coordinate with concerned parties to prepare management and operation plans for the areas under their responsibility.
3. Implement the approved management and operation plans with participation if villagers.
4. Conduct the monitoring control and evaluation of implementing activities based on signing contracts.
5. Conduct the training on techniques of sustainable production forest management for villagers within or surrounding villages.
6. Assist villagers to prepare the village' socio-economic development plan.
7. Involve in termination and confiscation of evidences of whom, that violate the laws.
8. Report to the higher levels on the management activities both to the vertical and horizontal lines.
9. Are responsible for all successes and weaknesses in implementation of production forest management plan under their responsibility.

Article 28 Rights and Duties of VFOs
1. Implement the resolutions, orders and various legislation issued by higher authorities;
2. Participate in all activities of sustainable forest management of a PFA stated in management plans, conflict resolution resulting from production forest activities;
3. Participate in monitoring and enforcement of violations of legislation that may degrade the forest resources and environment in a PFA;
4. Report the evidence of violations occurring in a PFA to a higher authority; and
5. Manage the customary use of forest resources and other uses of villagers according to relevant legislation.

Chapter 6 – Incentives and Measures

Article 29 Prohibited Acts
It is prohibited to:
1. Modify the PFA boundaries without approval as stated in legislation;
2. Use of forest or forestland in PFA for purpose other than in management and operation plans, except with specific permission issued according to legislation;
3. Conduct any activity not permitted in management and operation plans in a PFA unless with approval from relevant authorities;
4. Violate any legislation, technical guideline covering management, use, regeneration and conservation of a PFA; and
5. Activities that may have a negative impact on forest resources, wildlife and aquatic animals, environment or other resources in a PFA.

Article 30 Incentives for Good Practices
Any individual or organizations that practices, management, protection and sustainable development of forest resources in a PFA or help to protect against violations of the legislation from offenders will be rewarded incentives according to legislation.

Article 31 Measures Against Offenders
Any individual or organization that violates the Forestry Law or other legislation within a PFA shall be subject to Articles 69 – 73 of the Forestry Law and other Laws.

Article 32 Conflict Resolution
1. Any conflict between government organizations, individuals, VFOs or villagers regarding forestry activities or over a forest management agreement concerned with PFA management shall be resolved according to the procedure stated in the relevant agreement or contract signed by the parties;
2. If the conflict remains unresolved at the initial level, either party may request resolution at the next higher level or organization.
3. If the conflict is not resolved by the administrative measure, then either party may submit the complaint to the appropriate judicial or arbitration organization.

Part 4 – Final Provisions

Article 33 Implementation
1. All Ministries, relevant organizations, Provinces, Municipalities and Special Zone(s), and all economic sectors, including individuals and organizations shall acknowledge and jointly encourage the strict implementation of this Regulation.
2. The Department of Forestry, the Provincial, Municipal and Special Zone Agriculture and Forestry Offices, DAFO(s) and village authorities have the duty to disseminate and implement this regulation.

Article 34 Effectiveness
This Regulation is effective from the date it is signed. If any specific articles or statement of any regulation or guidelines issued by MAF that are inconsistent with this Regulation are automatically repealed.

Signed:
The Minister of MAF

H.E. Dr. Siene Saphangthong
THE WATER AND WATER RESOURCES LAW

Adopted by the National Assembly 11 October 1996
Promulgated by the President of the State 2 November 1996
Effective 3 February 1997
(90 days after promulgation by the President [Article 42])

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Decree of the President

(National Seal)

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

No. 126/PDR

DECREE
Of the
PRESIDENT
Of the
LAO PEOPLE’S DEMOCRATIC REPUBLIC

On the promulgation of the Water and Water Resources Law

• Pursuant to the Constitution of the Lao People’s Democratic Republic, Chapter V, Article 53, Clause 1;
• Based on the Resolution of the 9th ordinary session of the National Assembly, IIIrd Congress on the adoption of the Water and Water Resources Law No. 005, dated 11 October 1996.
• Pursuant to the proposal of the Standing Committee of the National Assembly No. 08/SCNA, dated 16 October 1996.

The President of the
Lao People’s Democratic Republic
Issues this decree to:

Article 1: Promulgate the Water and Water Resources Law

Article 2: This Decree is effective from the day it is signed.

Vientiane, 2 November 1996

(seal of the President of the State)

(signature)

Nouhak Phoumsavan
RESOLUTION
Of the
NATIONAL ASSEMBLY
Of the
LAO PEOPLE’S DEMOCRATIC REPUBLIC

On the adoption of the Water and Water Resources Law

Resolved:

Article 1: To adopt the Water and Water Resources Law by unanimous vote.

Article 2: This Resolution is effective from the day it is signed.

Vientiane, 11 October 1996
President of the National Assembly
(seal of the President of the National Assembly)
(signature)
Samane Vignaket
The Water and Water Resources Law

Chapter I
General Provisions

Article 1. Function of the Water and Water Resources Law
This Water and Water Resources Law determines necessary principles, rules, and measures relative to the administration, exploitation, use and development of water and water resources in the Lao People's Democratic Republic to preserve sustainable water and water resources and to ensure volume and quality providing for people's living requirements, promoting agriculture, forestry, and industry, developing the national socio-economy and ensuring that no damage is caused to the environment.

Article 2. Water and Water Resources
Water is one type of liquid natural resource which is the most basic and principal of resources among water resources.

Water resources are natural resources which are comprised of things inhabiting water or water resources which do or do not have life, e.g.: plants, marine animals, rocks, minerals, sand, mud, stones, etc.

Article 3. Water and Water Catchment
A water source is place where there is an accumulation, an abiding [body of water], a [body of water at] rest, or a permanent or temporarily active [body of] naturally occurring water. Water exists above and underground and in the atmosphere.

- Aboveground water sources are water sources above the surface of the ground which occur in long connecting flows and in spots, e.g.: rivers, small waterways, tributaries, ponds, canals, swamps, streams, bogs, springs;
- Underground water sources are water sources below the surface of the ground occurring in levels, in acquifers, as a stream, or are mixed in with the ground;
- Atmospheric water sources are water sources in the atmosphere which are in the form of the steam, or in small accumulated particles such as fog, clouds, rain, or hail;
- Catchments are all areas of ground surface and forests, from river sources to the mouths of rivers where water is distributed and in places where raindrops are accumulated into a water sources system.

Article 4. Water and Water Resources Ownership
Water and water resources are the property of the national community whom the State represents in managing and thoroughly and reasonably allocating its use to various parties.

Individuals, juristic entities, or organizations shall have the right to control and use any natural water and water resource in any activity only so long as they are have received approval from relevant authorized agencies, except in the case of small scale usage as provided by this Law.

Article 5. Promotion, Development and Preservation of Water and Water Resources
The Government promotes the development, exploitation, use, preservation and protection of water and water resources including the prevention of ill effects [arising] from water and all acts which cause depletion.

Water and water resources management and use must be conducted according to centralized and integrated comprehensive management principles, according to the allocation plan provided for in Article 22 of the Law.

**Article 7. Obligations to Protect Water and Water Resources**

In order to successfully protect and use water and water resources, individuals, juristic entities or organizations are obligated to strictly comply to water resource and water source management regulations.

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**Chapter II**

Surveying, Listing and Determination of Water Source Types and Reservoirs

**Article 8. Surveying and Listing**

The Ministry of Agriculture and Forestry is directly liable for water source and water catchment surveying and listing throughout the country through coordination with relevant sectors and localities.

**Article 9. Determination of Water Source Type**

For use in the National Socio-Economic and Environmental Development Plan in the Lao People's Democratic Republic, water sources are categorized according to the following purpose types:

1. Water sources for drinking and use are water sources which are allocated for peoples’ consumption and [for their use of it] as a commodity;
2. Reserved water sources are water sources which are allocated for the care of animals, vegetation, living and non-living things, etc., including the natural environment and important and precious things;
3. Water sources for irrigation are water sources allocated to agro-forestry production and raising livestock;
4. Water resources to produce electrical power are water sources which are allocated to the production of electrical power;
5. Industrial water sources are water sources which are allocated to industrial production;
6. Water sources for water transportation are water sources allocated to boat travel and water transport;
7. Water sources for tourism are water sources allocated to tourist use;
8. Water sources for protection of health and hygiene are water sources allocated to use for health and medical care.

**Article 10. Types of Catchments**

There are three types of catchments, namely a main catchment, a tributary catchment, and a branch catchment.

1. A main catchment is a catchment where water flows in from the Mekong River which is in the territory of the Lao People's Democratic Republic.
2. A tributary catchment is a water source catchment in the territory of the Lao Peoples' Democratic Republic which is a branch of the Mekong river or of some other river.
3. A branch catchment into which branches flow is a water source catchment which feeds into branches of the Mekong River or the other rivers in the territory of the Lao People's Democratic Republic.

The agencies responsible for water must determine to scope and type of catchments provided for in Article 9 of this Law.

**Article 11. Water Source and Catchment Allocation**
In allocating water sources and catchments, reference shall be made to surveying and data collection in order to determine effective division, administration, and use of water and water resources.

**Article 12. Determination of Water and Water Resource Allocation**
To ensure that water and water resources existing in the Lao Peoples’ Democratic Republic are used thoroughly and according to plan, the Government shall determine the distribution of water and water resources.

**Chapter III**  
*Water and Water Resource Use*

**Article 13. Objectives of Water and Water Resources Use**
Water and water resources can be used for various purposes, e.g.: for family consumption and as a commodity, irrigation, fishing and raising fish and other marine animals, agro-forestry production, livestock, producing electrical power, industrial production, communications and transportation, athletics, leisure, medicinal, cultural, and other uses.

The use of water in the production of electrical power and irrigation shall be specifically regulated.

Any water and water resource may be used for any purpose or purposes, as the case may be and as is appropriate. For underground water sources, such must principally be reserved for drinking and for use. Use of underground water in medium and large scale activities must have received approval from a relevant agency.

**Article 14. Right to Use Water and Water Resources**
Individuals, juristic or organizations have the right to use water and water resources [at the level of] family use or in business operations.

The right to use water and water resources exists at three levels as:

- Small scale
- Medium scale
- Large scale

The right to use water and water resources must be pursuant to the water sources allocation plan.

**Article 15. Small Scale Use**
Small scale use is the use of water and water resources which is not of a business nature for the following purposes:

1. Family [residential] use for the benefits of the general household or for cultural and athletic use;
2. Fishing and raising fish or other marine animals;
3. Collecting dirt, rocks, gravel, sand, mud, and other vegetation in or around a water source;
4. Use in agro-forestry production and for livestock for basic family use.

Such small scale use may be undertaken provided that there is no prohibition from a relevant ministry or a local administrative authority.

**Article 16. Medium Scale Use**
Medium scale water use is the use of water and water resources for the following purposes:

1. Construction of small scale weirs or dams, building things which impede or divert the flow of water or building a dam or raising an embankment to divert water flow for navigation or as a small reservoir for the production of electrical power or for irrigation, livestock, fishing, etc.;
2. Harvesting rocks, gravel, sand, soil, mud, trees, etc. in or around a water source having a nominal effect on nature and the environment;

3. Installation of small mechanical water pumps to undertake production or services which are not family use;

4. Use of water sources for tourism, athletics, and culture businesses.

**Article 17. Large Scale Water Use**

Large scale water use is the use of water and water resources for the following purposes:

1. Construction of medium and large scale reservoirs for the purpose of irrigation, consumption, as a commodity, and to produce electrical power;

2. Construction of buildings or installation of plants, factories, equipment, large scale machinery in the area of, close of, or around the water source area;

3. Use of water and water resources in large volumes in the field of industrial plant production.

**Article 18. Each Type of Use**

Small scale use does not require approval. For medium and large scale use, approval must be obtained, there must be registration, and an arrangement must be made. In addition, large scale use must be accompanied by a feasibility study, an environment and social impact assessment.

**Article 19. Water and Water Resources Management**

Water and water resource management shall be centrally controlled and management shall be divided according to size and water use right as provided for in Article 14 of this Law.

Large scale use shall be government approved.

Medium scale usage shall be approved by a relevant agency, but for significant medium scale use, there must be government approval.

Management, monitoring, and inspection of such use is assigned to relevant divisions and local administrative authorities for execution.
Chapter IV

Development of Water Sources and Management of Water Source Development Activities

Article 20. Water Development Activities
Water source development activities are activities which relate to construction, digging, drilling, installation, improvements, expansion, and repair of reservoirs or water catchments, ponds, shallow wells, deep aquifer wells, canals, breakwaters, or drainage pipes for exploitation, collecting, or to catch [accumulate] aboveground, underground, and atmospheric water sources for use for any purpose as provided for in Article 13 of this Law, including activities to protect against ill effects from flooding, drought, and erosion.

Article 21. Conducting Water Source Development Activities
Individuals, juristic entities, and organization any conduct any water source development activity provided only that they have obtained approval from the relevant authorized agency, except for small scale water source development activities whose objectives have not been prohibited.

Article 22. Principles Governing Water Source Development Activities
Water development activities must be conducted according to the following principles:

1. Must be conducted in compliance with the Socio-Economic and Environmental Development Plan, master plans and development plans from time for each sector and construction plans for each approved project.

2. Must ensure the preservation of water resources, the environment and the natural panorama;

3. Must prevent ill effects arising from water;

4. Must conduct [activities] under the inspection of relevant authorized agencies for water and water resources.

Article 23. Management of Water Resource Development Activities
Divisions and agencies responsible for water and water resources have the duty to issue regulations regarding water source development activities.

Individual, juristic entities or organizations which conduct water source development activities have the duty to maintain and preserve their constructed items in good condition and to ensure safety.

Individuals, juristic entities, or organizations which have used or have received benefits from water source development activities have the duty to participate in providing data, maintenance, and preservation of those water source development activities.

Article 24. Funds Contributed to the Preservation of the Origins of Water and Water Resources
Those conducting development activities and who use water and water resources must contribute funds for the maintenance of the origins of water and water sources.

The Government promotes the development and the use of water resources in the production of large, medium, and small scale electrical power at water sources where there are [suitable] conditions for the production of electrical power. Use of water resources must refer the capacity and impact where there are conditions conductive to the construction of many [hydro]electric dams or the construction of multipurpose [hydro]electric dams which are planned for the same waterway.

In the building of a [hydro]electric dam, reference must be made to preserving the origins of water, forests, the environment, prevention of flooding, water supply, irrigation, water communications, fishing, raising fish, marine animals, etc.
Article 26. Promoting Public Building of Water Catchments
The State promotes public building water catchments to ensure agro-forestry production and livestock. Local administrative authorities have the duty to mobilize and to [create] appropriate encouragement, e.g. principally: give credit privileges, give tax exemptions or rebates.

Article 27. Diversion, separation or Modifying Waterflow
In water source development activities, small scale diversion, separation, or modification of waterflow must be approved by provincial or prefectural administrative authorities; medium scale must be approved by the Government; large scale must be approved by the National Assembly.

Article 28. Removal of Peoples
When necessary to remove peoples from a site or an area of water source development, the project owner must assist in searching for an appropriate residence and livelihood. Funds for use in the removal, assistance or compensation for damages for such persons shall be calculated in the project investment value.

Chapter V
Protection of Water and Water Resources

Article 29. Protection of Water and Water Resources
Individuals, juristic entities, or organizations are obligated to preserve water and water resources, shall not cause water to dry up or be depleted, polluted or become noxious and shall not cause damage to water, water resources, public property and other individual's property. Water and water resources use must be thrifty and there must be measures to diminish undesirable effects upon the environment and natural beauty. In addition, there are still strict obligations to preserve and rehabilitate and maintain forest resources and forest lands in water catchment areas in conformity with the water source allocation plan, forests, land, and seasons, specifically in the area of water origins or around water sources.

The Government shall determine protected and reserved areas to preserve water resources

Article 30. Area of Protected Water and Water Resources
The Government determines areas of protected water and water resources in order to supply [a certain] volume and quality of water to the populace in urban and rural areas. Such protected areas may be demarcated or fenced in. Within the protected areas, there shall be no construction, agro-forestry production or industry, livestock, quarrying, mineral excavation, soil, sand, dumping of trash, waste, waste water, poisons, chemical substances, bombs, burials of human or animal cadavers, etc., which cause damage.

In the case that it is seen that there is serious damage to water volume and quality or there is risk of spreading disease, the Government shall determine an additional protected area or region or shall use other protective measures.

Article 31. Prohibitions
For water and water resource preservation to be effective, it is absolutely prohibited for any individual, juristic entity, or organizations to:

1. Conduct use, exploit, or destroy water and water resources within reserved areas;
2. Cut trees within water origination protected areas or around water sources;
3. Dig, drill, excavate or modify land surfaces which will cause erosion in the catchment area, throw or pour materials into the water source which will cause the water source to become shallow and saline or dry up or become noxious and poisonous.

The following acts are prohibited except if approval has been granted:

1. Construction or building by water, on the shoreline or in water;
2. Exploitation, pumping or digging sand, gravel, minerals, soil or mud from surfaces adjacent banks or surrounding water sources;
3. Digging water drainage, filling, modifying or changing water areas, ponds, marshes, streams which are in public areas, including organizations and individuals, which will cause damage to the public good and other persons.

4. Construct impediments to water flow or items which impede avenues of water communications;

5. Modify water flows or build water regulating gates, dig or excavate medium or small scale drainage ditches.

In addition to the above prohibitions, the Government promotes the planting of trees and the rehabilitation of forests in areas of water source protection.

**Article 32. Water Quality Standards**

The responsible water authority shall determine quality standards for drinking water and used water which is drained in to water sources or into some other place.

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**Chapter VI**

**Undeniable Facts**

**Article 33. Undeniable Facts**

Realities which must be accepted are actual conditions which must occur naturally or as provided for by law.

**Article 34. Undeniable Natural Facts**

Those who possess land upstream do not have the right to block the regular flow of water which will cause damage to those who use water on downstream land.

If there is blockage which causes damage to those who use water on downstream land, the possessor of upstream land must be responsible to appropriately compensate the damaged party.

Those who possess land downstream must allow water to flow naturally from the upstream land into or across their land.

If the person who possesses downstream land dams the water, causing damage to the possessor of the upstream land, that possessor of the downstream land must be liable to compensate for damages which arise.

**Article 35. Undeniable Legal Facts**

Those who have build or who have received approval to conduct any activity have the right to receive a right of way for any type of water, including polluted water, waste water, or toxic water via a pipe or by digging a trench across an individual, a juristic entity's or an organization's and, but must apply appropriate measures and cannot cause damage to the possessor of the land over which the water flows.

If there is a violation of the specific legal realities which must be accepted which causes damage to an individual, a juristic entity, or an organization, the offender and the person enjoying benefits from such instance must compensate damages as appropriate. If the person accepting legal facts is injured but has already received benefits, they must still make appropriate compensation.

**Article 36. Rights of Those Who Possess or Reside Near Land Over Which Water Flows**

Those who possess land over which water flows or land which is close to water flows have the right to make use of activities provided for in Article 35 of this Law, but they must contribute to various costs, e.g.: construction costs, use costs and costs to maintain and protect the portion which they use for such activities.

**Article 37. Right and Obligations of Water and Water Resources Use and Management**

The water and water resource use and management agency has the right to install and construct necessary items upon the land of individuals, juristic entities, or organizations to distribute and inspect water or improve water quality, including the right to lay electricity lines and water pipes across such land, but must make appropriate compensation for damages which arise.

**Article 38. Dispute Resolution**
Administrative authorities shall resolve disputes arising from specific undeniable truths through arbitration. If no agreement can be reached, the courts shall consider and resolve the matter.

Chapter VII
Preventing and Fighting Water Damages

Article 39. Water Damages
Water damages are damages which arise from water due to natural disaster or due to acts of man, e.g.: floods, rising water, fast rising water, water salinity, polluted water, waste water, muddied water, drying up to the flow of water, erosion etc.

Article 40. Prevention of Flooding
All levels of administrative authorities must be responsible for leading and using effective measures, and applying a central plan and instructions relative to and against flooding. If there is flash flooding the administrative authorities at that place must resolve the matter.

To prevent and to flight flooding, administrative authorities to each level the right to mobilize materials and equipment and labor and use budgets of the State, individuals, juristic entities or organizations in preventing and fighting floods. When the works have ended, such materials and equipment must be returned to their owners and appropriate damage compensation must be made for such materials and equipment.

Individuals, juristic entities or organizations have the duty to cooperate with administrative authorities in preventing and fighting flooding.

Article 41. Prevention of and Fighting Erosion
Agencies responsible for water administrative authorities at all levels must augment their leadership in preventing and fighting erosion. It is prohibited to carry out activities which cause erosion, e.g.: construction, cutting trees, rock quarrying, gravel quarrying, soil, sand, minerals, etc. In addition, in order to preventing erosion impacts, such agencies must have a plan to prevent erosion where necessary, e.g.: reforestation on shorelines and undertaking various other measures.

Article 42. Preventing Polluted and Waste Water
Polluted water is water which is not clear or water which has been used which can be reused after being recycled.

Waster water is water which has been used which has dirty matter in it [or] has chemicals mixed in it which causes it to lose its characteristics as water, being dangerous to the environment.

Individuals, juristic entities or organizations must adhere to regulations regarding the prevention of waste water.

All acts which causes damage to water or water resources, the environment, animals, and the living conditions of the people are prohibited. It is prohibited to throw or release waste of all types which will cause water pollution or waste water into water resources in excess of approval water pollution levels and water quality standards.

Before throwing or releasing polluted water, waste water or waste into water sources in excess of standard levels, there must first have been recycling, e.g.: water from mechanical plants, factories, abattoirs, hospitals, etc.

Should any individual discover any act referred to above, they must report such to the village administrative authorities or to a responsible organization for timely resolution [of the problem].

It is prohibited to throw into or release waste or any matter [whatesoever] into water sources causing damage beyond the approved standards level of water pollution and water quality.

Before throwing or releasing waste water or waster into the water sources, individuals, organizations or juristic entities must first treat[recycle] it.
Article 43. Monitoring and Inspections
The agency responsible for water and other relevant agencies have the duty to regularly monitor and inspect the adherence to and the application of the following measures:

1. Standards, volume and quality of water as provided by regulations and laws;
2. The proper use of water and water resources according to type and system of use;
3. Execution of construction projects relative to the development of water sources so that they are in accordance with the socio-economic development plan, the environment, the water sources allocation plan, the masterplan and the construction plan relative to development of water resources.

In addition to applying other regulations and laws relative to water and water resources, a fund must also be organized for the protection and development of water and water resources.

Chapter VIII
International Cooperation relative to the Use, Control, Protection, and Development of Water and Water Resources

Article 44. Development and Control of Water and Water Resources between Countries
The exploitation, use, control, protection, and development of water and water resources between countries must be conducted in compliance with signed treaties and conventions, e.g.: use and preservation of water and water resources between the Lao Peoples' Democratic Republic and neighboring countries must be carried out based upon fairness, reasonableness, equality, recognition of independence, sovereignty and autonomy.

Article 45. Resolution of Disputes relative to Water and Water Resources between Countries
Disputes which arise between the Lao People's Democratic Republic and adjoining countries regarding exploitation, usage, control, and protection of water and water resources and the prevention of water damage must be resolved by the Government of the Lao People's Democratic Republic and the government of the relevant country based upon friendship and equality via diplomatic channels and as provided for by treaty entered into and acknowledged by the Lao People's Democratic Republic.

Chapter IX
Privileges for Productive Persons and Measures Against Offenders

Article 46. Application of Privileges to Productive Persons
Individuals, juristic entities or organizations who have outstanding and effective results in the protection, development, exploitation, use, and preservation of water resources and the environment pursuant to the socio-economic development plan, the water resources allocation plan, the environmental preservation and protection plan including building catchments and reforestation in water sources protected areas shall receive commendations and other privileges to be determined by the Government.

Article 47. Measure Against Offenders
Individuals, juristic entities or organizations who violate this Law shall be educated and trained, or rehabilitated or shall be punished according to laws and regulations of the Lao Peoples' Democratic Republic on a case by case basis according to the seriousness of the offense.

Chapter X
Final Provisions

Article 48. Implementation
The Government of the Lao People's Democratic Republic has the duty to issue detailed terms for the implementation of this Law.

Article 49. Effectiveness
This Law shall be effective 90 days from the date that the President of the Lao People's Democratic Republic issues a Decree promulgating it. Terms and regulations which conflict with this Law are hereby canceled.

Vientiane, 11/10/1996
President of the national Assembly
[seal of the President of the National Assembly]
[signature]
Samane Vignaket
THE ELECTRICITY LAW

Adopted by the National Assembly 12 April 1997
Promulgated by the President of the State 31 May 1997
Effective 29 August 1997
(90 days from promulgation -- 31 May 1997)

Unofficial Translation by:
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EXECUTIVE DECREE

of the

PRESIDENT

of the

LAO PEOPLE'S DEMOCRATIC REPUBLIC

On the promulgation of the Electricity Law

- Pursuant to Section V, Article 53, clause 1 of the Constitution of the Lao People's Democratic Republic;

- Based on the Resolution of the 10th ordinary session of the National Assembly, IIIrd Congress on the adoption of the Land Law No. 02-97/NA, dated 12 April 1997;

- Based upon the application of the Standing Committee of the National Assembly, No. 15/SC, dated 7 May 1997.

The President of the
Lao People's Democratic Republic
decrees:

**Article 1:** The promulgation of the Electricity Law.

**Article 2:** This Executive Decree is effective from the day it is signed.

Vientiane, 31 May 1997

(Neak of the President of the Lao People's Democratic)

(Nouhak Phoumsavan)
The Electricity Law

Chapter I
General Provisions

Article 1: Function of the Electricity Law

The Law on Electricity has the function of determining a regime for the administration, production, transmission and distribution of electricity, including export and import through the use of a highly productive natural resources potential to contribute to the implementation of the national socio-economic development plan and to upgrade the living standards of the people.

Article 2: Electricity

Electricity is a type of energy comprised of electricity, electrical currents, electrical intensity, and electrical energy produced by physical sources of electrical energy: water power, wind power, solar power, petroleum and coal. Electrical power from other sources is not included in this Law.

Article 3: Electricity Ownership

Physical sources of electricity throughout the Lao PDR are the property of the national community and the State administers, preserves, and conservatively uses such on a long term and productive basis.

Article 4: Promotion of Electrical Power Production and Development

The State promotes all sectors of the economy in investing in the production of electricity to meet the demands of the peoples in urban and rural areas, including the development of electricity as an exportable commodity.

Article 5: Protection of the Rights and Interests of Electricity Investors and Users

The State protects the rights and interests of those investing in electricity enterprises and users of electricity according to the laws and regulations of the Lao PDR.

Article 6: Environmental Protection

The undertaking of the electricity business commencing from the survey, agreement upon the size as well as the construction and the expansion of electricity must ensure economic productivity as well as
projections of environmental impact, the natural environment, the ecological system, limiting social
impact and wildlife habitats.

**Article 7: Foreign Cooperation**

The State has broadened foreign cooperation relative to the production, distribution, export and
import and the development of electrical activities according to the law on the Promotion and
Management of Foreign Investment in the Lao PDR.

**Chapter II**

**Electricity Activities**

**Article 8: Electricity Activities**

Electricity activities are undertakings relative to the survey, data collection, design, construction and
installation, production, transmission and distribution, export and import, development and other
services relative to electricity.

**Article 9: Sizes of Electricity Enterprises**

Electricity enterprises in the Lao PDR are divided into four sizes as follows:

1. Electricity with an installed capacity of more than fifty thousand (50,000) kilowatts is proposed
   by the Government to the National Assembly for approval;

2. Electricity with an installed capacity of more than two thousand (2,000) - fifty thousand (50,000)
   kilowatts is approved by the Government;

3. Electricity with an installed capacity of more than one hundred (100) - two thousand (2,000)
   kilowatts is approved by the provincial, prefectural or special zone administrative authorities
   according to approval from the Ministry of Industry and Handicraft;

4. Electricity with an installed capacity of less than one hundred (100) kilowatts is approved by the
   district administrative authorities with the approval of the province, the prefecture or the special
   zone.

**Chapter III**

**Electricity Activities Concessions**

**Article 10: Investment in Electricity Activities**

The State promotes investment in electricity activities with emphasis upon hydropower to use water
sources which are a natural resources potential.

Investment in electricity activities may be undertaken by many different types of enterprises as
follows:

1. The State invests alone;
2. The State invests with other domestic or foreign parties;

3. A investor invests in a cooperative investment or privately within the country.

Enterprises related to electricity activities may undertake [their activities] in the following forms:

1. Build, operate, and transfer (BOT);

2. Build, operate, own and transfer (BOOT);

3. Build, transfer, and finance (BTF);

4. State operated allowing the State electricity company to be the representative;

5. Investment in some other form.

Article 11: Concessions for Electricity Enterprises

All persons or organizations who seek to operate an electricity enterprise relative to the production, transmission and distribution, export and import or development of electricity must request a concession from the Government of the Lao PDR and must request approval to establish and register an enterprise as provided for in the Business Law.

Article 12: Procedures for Requesting a Concession

Requests [to establish] electricity enterprise concessions are comprised of studies, evaluation of the project, survey of initial data, application for investment, consideration of the investment application, a signing of a memorandum of association, survey, drafting of a feasibility study, an environmental impact assessment statement, consideration and approval of the concession and other works the procedures of which the Ministry of Industry and Handicrafts shall determine in detail.

The Government of the Lao PDR shall participate in the shareholding when there is a concession for an electricity enterprise.

Article 13: Feasibility Studies

Feasibility studies are comprised of the following contents:

1. Socio-Economic Results;

2. Maximum producible electrical power;

3. Estimated project value;

4. Estimated project term and the life of the dam or estimated term and life of some other electrical system;

5. Estimated electricity price;
6. Plans and operation phases: construction, installation, and time period for commencing electricity supply.

**Article 14: Environmental Impact Assessment**

Along with the feasibility study, the investor must draft an environmental impact assessment which shall be comprised of the following contents:

1. projection of environmental impacts in each case by proposing a methodology, relief measures or a means to minimize the adverse impacts upon the environment, ecology, society and wildlife habitats;

2. estimate the damage and the movement of peoples who will be affected by the electricity project to conduct their production [activities] somewhere else;

3. means to limit the impact upon the water volume below the hydropower dam, which is a major direct contributor to increased flooding during rainy season, by excavating a drainage ditch to divert the water if necessary or by some other means;

4. calculation of expenses for repairs provided for in clauses 1, 2, and 3 of this Article must be incorporated into the capital of the project.

**Article 15. Conditions of those who will receive Concessions**

Those who shall receive concessions must meet the following conditions:

1. Have financial and technical ability;

2. Have a good and reputable business background;

3. The project must be productive economically and socially;

4. The concession must comply with the National Socio-Economic Development Plan and must not create adverse environmental impacts.

When a concession applicant meets all of the conditions, the Government will consider the grant of a concession.

**Article 16: Concession Term**

Concession terms are not to exceed thirty (30) years, including the construction period, which shall commence from the date of concession approval. After the concession period has expired, the concessionaire must transfer the entire enterprise back to the Government in a good and operational condition without any compensation whatsoever.

Concession terms may be extended, but shall not exceed 10 (ten) years as agreed to by the Government. Requests to extend concessions must be submitted five (5) years before the expiration of the concession.
Article 17: Rights of the Concessionaire

Concessionaires of electricity enterprises have the following rights:

1. Lease land necessary for the operations of the electricity enterprise, but before there is use of other resources on the leased land, there must first be Government approval [to use such];

2. To receive benefits from the concession;

3. To receive protection under the law;

4. To receive technical and technological instructions from the Government relative to electricity;

5. Request an extension to the concession term;

6. Transfer or succeed to an electricity enterprise according to agreement by the Government.

Article 18: Obligations of Concessionaires

Electricity enterprise concessionaires have the following major obligations:

1. Operate enterprises properly and in accordance with the conditions of the concession;

2. Deposit a guarantee with the Bank of the Lao PDR;

3. Import registered capital as foreign currency into the Lao PDR according to laws and regulations and according to the foreign investment contract;

4. Protect the environment;

5. Keep accounts as provided in the Enterprise Accounting Law;

6. Timely and completely pay taxes and duties and other obligations according to laws and regulations;

7. Pay damages in case where there has been damage to the environment, lives and property of people if there is a movement of peoples;

8. Train and build up expertise and guarantee social welfare for Lao laborers;

9. Record and report results of the concession according to a time period including detailed expenses of the project;

10. Maintain and repair machinery and electrical equipment to maintain such in good condition according to technical principles relative to electricity;

11. Strictly adhere to the Labor Law and other laws of the Lao PDR;

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12. Hand over the project along with the feasibility study and other project documents to the Lao Government without any compensation in the case that the concessionaire does not continue the operations of the electricity enterprise;

13. Before such hand over of the electricity enterprise to the Government, the electricity enterprise operations must first pay all of its debts.

**Article 19: Expiration of Concessions**

Concessions shall expire in the following cases:

1. End of the concession term;
2. Voluntary cessation of the concession before its term with the approval of the Government;
3. Concession rights are withdrawn due to a serious violation of the laws and regulations;
4. Transfer of the enterprise to someone else with the approval of the Government.

**Article 20: Exceptions to Concession Applications**

Exceptions to concession applications are as follows:

1. Building of a small scale dam with an installed capacity of less than (two thousand) 2,000 kilowatts and with immaterial environmental impact;
2. Building and installation of equipment to produce electricity by means of electricity producing equipment by means of a heating system of less than five hundred (500) kilowatts.

Operation of an electricity enterprise as referred to above must conform with the National Masterplan and the requirements of the peoples.

**Chapter IV
Installation and Determination of Electricity Equipment Standards**

**Article 21: Installation of Electricity**

Installation of electricity is the building, installation, expansion and repair of an electrical system in order to use such for production, services and peoples daily lives by means of a complete electrical equipment system.

**Article 22: Approval to Operate an Electricity Enterprise**

Individuals and organizations who seek to operate an enterprise related to the installation of electricity must have received approval from the industry and handicraft divisions, must have received approval to register with the commerce division and must have completed tax registration with the finance division.
Article 23: Determination of Standards for Electrical Equipment

In order that electrical tools, electrical equipment, electricity transmission lines and items receiving electricity achieve a certain standard, ensure safety, be energy saving and is a uniform system throughout the country, the Ministry of Industry and Handicraft shall determine, approve, inspect and conduct work inspections on the quality of all types of electrical equipment produced domestically and imported from abroad.

Chapter V
Electricity Production

Article 24: Electricity Production

Electricity production is the system of producing electricity from the unit generating electricity by water power, wind power, heat energy, geothermal power or other energy.

Article 25: Conditions of Electricity Production

Production of electricity must comply with the following conditions:

- use modern equipment;
- have equipment which limits environmental impact;
- be [of a certain standard] and quality provided for in specific regulations;
- adhere to other necessary conditions in the production of electricity.

Chapter V
Electricity Transmission

Article 26: Electricity Transmission

Electricity transmission is the system of sending and transporting electricity from the electricity production source to the electricity distribution station to urban areas located a long distance away or abroad.

Article 27: Installation and Building of Electricity Transmission Lines

The installation and building of electricity transmission lines must ensure safety and must restrict damage to nature and peoples property.

All citizens have the obligation to contribute to ensuring security, to protect and preserve electricity poles, electricity transmission lines and other equipment in the area where they reside.

Article 28: Transmission of Electricity via a System

The transmission of electricity via a system is the transmission of electricity over an electrical transmission system of another party. The owner of an electricity transmission system who is requested transmission of electricity over their electricity transmission system does not have the right
to refuse unless the transmission of electricity over that transmission line cannot be technically guaranteed. Those who use the electricity transmission system of another must pay a service fee.

**Article 29: The National Electricity Transmission Grid**

The National Electricity Transmission Grid is the high power electricity transmission line system of the Government of the Lao PDR which connects one party to another party throughout the country and which is connected to foreign transmission lines to ensure the administration of production, transmission and distribution of electricity including the protection and preservation of the environment and peoples property.

All electricity production sources must send electricity into the National Electricity Transmission Grid, unless the distribution of electricity within the area where there is an electricity generating plan, there is production of small scale electricity or where there is yet no national transmission grid.

**Chapter VII**

*Electricity Distribution*

**Article 30: Electricity Distribution**

Electricity distribution is the distribution of electricity from the transmission system or from the electricity generating equipment to various types of electricity use sites which are referred to as the electricity distribution network by means of a high, medium or low power system.

**Article 31: Principles of Electricity Distribution**

Electricity distribution must be conducted based upon the following principles:

1. Continuous and regular electricity supply;
2. Broad-based and regular distribution of electricity;
3. Safe distribution of electricity;
4. Distribution of electricity for socio-economic development.
Article 32: Determination of Electricity Prices

The determination of electricity price is subject to socio-economic conditions and the standard of living from time to time. Electricity prices are divided into the following types:

1. The export commodity price and the import price;
2. The domestic price for industrial and agricultural production;
3. The price for rural and remote electricity use;
4. The price for electricity used in other services.

The Government shall agree to and shall approve a price for each type from time to time.

Article 33: Rights and Obligations of Electricity Distributors

Electricity distributors have the following rights:

1. Collect electricity fees from distribution and services;
2. Warn electricity users who violate regulations;
3. Suspend electricity distribution to users who seriously violate electricity use regulations;
4. Apply measures relative to electricity distribution to ensure public safety and the environment;
5. Inspect and install electricity for electricity users.

Electricity distributors have the following obligations:

1. Broadly and regularly supply electricity to those who request it;
2. Notify electricity users in advance of each instance of cut off;
3. Instruct regarding regulations and principles regarding the use of electricity;
4. Responsibly and timely give service to electricity users;
5. Ensure the safety and social welfare of the electrical workers, safety for society and the environment;
6. Pay taxes and duties and other fees to the State according to regulations and the law;
7. Pay damages in the case that the electricity destroys the environment, peoples lives or their property or public property.

Article 34: Rights and Obligations of Electricity Users
Electricity users have the following rights:

1. To use electricity;
2. To receive instructions relative to the use of electricity;
3. To receive safe electricity usage;
4. To receive service in installation and repairs of electricity in their homes;
5. Request inspection of electricity fee calculations that one views is incorrect.

Electricity users have the following obligations:

1. Pay electricity rates and service fees for electricity that one uses;
2. Adhere to regulations and instructions regarding electricity usage;
3. Facilitate the installation, repair, inspection and recording of electricity usage figures;
4. Ensure safety and to protect and preserve the environment relative to electricity usage;
5. Urgently notify electricity officials in case an electricity-related irregularity is discovered.

Chapter VII
Electricity Export and Import

Article 35: Electricity Export

The Government of the Lao PDR promotes the development of electricity as an export commodity [so long as there are] assurances that there will be sufficient electricity for industrial expansion and national socio-economic development.

Article 36: Electricity Import

Electricity can be imported into the Lao PDR provided only that it is necessary for the country's socio-economic development and with agreement of the Government.

Article 37: Transmission of Electricity through the Lao PDR

The transmission of electricity through the Lao PDR is the transmission of electricity from one country across the territory of the Lao PDR to some other country by agreement with the Government of the Lao PDR. The transmission of electricity across the Lao PDR must be conducted via the National Electricity Transmission Grid by payment of a service fee, unless the Lao PDR National Electricity Transmission Grid is unable to supply that need. In such case, the Government shall temporarily approve that a party may transmit power over their own transmission line system but under the administration and inspection of the relevant agency of the Lao PDR.
The transnational transmission of electricity over the Lao PDR must fulfil the following conditions:

1. Limit adverse environmental impacts and limit damage to the people;
2. Pay fees to traverse Lao territory and other service fees while also compensating for all damages which arise from the building of such transmission line system;
3. Allow the Lao PDR's use of that transmission line system if required.

Chapter IX
Electricity Development in the Localities and in Rural Areas

Article 38: Electricity in the Localities and in Rural Areas

Electricity in the localities and in rural areas is an electrical system which is connected to a common electrical system or is any area's separate electrical system which produces electricity by virtue of small scale hydropower, with petroleum-operated machinery, by solar energy, by wind power or by some other energy.

The State promotes the development of electricity in the localities and in rural areas for use in commodities production and for people's daily lives in remote areas.

Article 39: Approval to Establish an Electricity Enterprise in a Locality or in Rural Areas

The provincial, prefectural, or special zone industry and handicraft division will conduct surveys and collect information relative to small scale physical sources of electrical energy with power generating capacity of one hundred (100) to two thousand (2,000) kilowatts to incorporate such into the local electricity building and development plan within the areas of its administrative authority.

The provincial government, the prefecture mayor or the chief of the special zone shall be the party which approves applications to establish electricity in the locality within their area of responsibility according to technical approval from the Ministry of Industry and Handicraft.

The district industry and handicraft bureau shall conduct surveys and collect data relative to physical electricity energy sources within the areas of their administrative control. The district chief shall approve applications to establish rural electricity according to the technical approval of the provincial, prefectural or special zone industry and handicraft division.

Article 40. Building Electricity in the Localities and in Rural Areas

Building and installing electricity in the localities and in rural areas may be conducted in the following forms:

1. Provinces, the prefecture, the special zone and districts conduct the building and installation themselves;
2. The Ministry of Industry and Handicraft builds and installs and hands it over to the province, the prefecture, the special zone, or the district;

3. Private parties or other parties build and install and thereafter hand it over to the province, the prefecture, the special zone, or the district.

The Ministry of Industry and Handicraft and other relevant ministries have the right to make technical recommendations and instructions regarding the building, installing, the protection and preservation of the environment and operating electricity in the locality and in rural areas.

The province, the prefecture, the special zone and districts have the duty to report according to procedures relative to all building and installing of electricity in the locality or in the rural areas to the Ministry of Industry and Handicraft.

Article 41: The Fund to Develop Electricity in the Localities and in Rural Areas

The State establishes a fund for assistance and for loans for carrying out works in building, installing and developing electricity in the locality and in rural areas.

The Fund for Developing Electricity in the Localities and in Rural Areas comes from the following funding sources:

1. The State budget;
2. The State and the people;
3. Other enterprises;
4. The people;
5. Domestic and foreign assistance.

In addition, the State may have a policy of exempting or minimizing taxes and duties, providing import credits for vehicles and equipment, for construction and for electricity operations in the localities and in rural areas.

Chapter X
Electrical Administration and Inspection Agencies

Article 42: Electrical Administration and Inspection Agencies

Electrical administration and inspection agencies are comprised of the following:

1. The Ministry of Industry and Handicraft;
2. The provincial, prefectural, or special zone industry and handicraft division;
3. The district industry and handicraft bureau;
4. The village administrative authority.

**Article 43: Rights and Duties of the Ministry of Industry and Handicraft**

In the administration and inspection of electricity enterprises, the Ministry of Industry and Handicraft has the following rights and duties:

1. Propagate the strategic plan relative to the development of electricity enterprises;
2. Survey and collect information, collect statistics regarding physical electrical energy sources throughout the country;
3. Draft a Masterplan regarding development of electricity enterprises including short-term, medium term and long term plans for the development of electricity enterprises and environmental protection;
4. Issue regulations regarding production and development of electricity enterprises;
5. Protect and preserve physical sources of electricity;
6. Research and give technical opinions relative to investment in electricity enterprises;
7. Research electricity prices to submit to the Government for agreement upon such and approval;
8. Coordinate with other parties and localities involved in the administration and inspection of electricity enterprises;
9. Cooperate with foreign parties and find funding sources for developing electricity enterprises;
10. Exercise other rights and fulfill other duties relative to the administration of electricity enterprises and regulations and the laws.

**Article 44: Rights and Duties of the Provincial, Prefectural, or Special Zone Industry and Handicraft Division**

In the administration and inspection of electricity enterprises, the provincial, prefectural or special zone industry and handicraft divisions have the following rights and duties:

1. Propagate the Ministry of Industry and Handicraft's Masterplan regarding development of electricity enterprises and the protection and preservation of the environment;
2. Survey, collect data, keep statistics and protect and preserve physical sources of electrical energy;
3. Research and give opinions regarding applications to establish small scale electrical production plants from two thousand (2,000) kilowatts down to one hundred (100) kilowatts to submit such to the provincial governor, the mayor of the prefecture or the chief of the special zone for approval;
4. Coordinate with other relevant parties regarding administration and inspection of electricity enterprises relative to production, transmission, and distribution of electricity and standards for electrical equipment, produced domestically and imported from abroad;

5. Exercise other rights and fulfill other duties relative to the administration of electricity enterprises according to its assigned authority from the Ministry of Industry and Handicraft.

**Article 45: Rights and Duties of the District Industry and Handicraft Bureau**

In the administration and inspection of electricity enterprises, the district industry and handicraft bureau has the following rights and duties:

1. Implement the plan, project, terms and regulations and instructions of the provincial, prefectural or special zone industry and handicraft division relative to electricity enterprises and the protection and preservation of the environment.
2. Research and give opinions regarding applications to establish small scale electrical production plants or electricity generating equipment of one hundred (100) kilowatts or less to submit such to the district governor for approval;
3. Coordinate with other relevant parties regarding administration and inspection of electricity enterprises within the area of its responsibility;
4. Exercise other rights and fulfill other duties relative to the administration of electricity enterprises according to its assigned authority from the industry and handicraft division.

**Article 46: Rights and Duties of the Village Administrative Authority**

In the monitoring and inspection of electricity enterprises, the village administrative authority has the following rights and duties:

1. Monitor and inspect the undertakings of small scale electricity enterprises within the area of its village;
2. Propose and report to [to the relevant] organization relative to the undertakings of the electricity enterprise affecting the rights and benefits of the people, fine traditions and laws and regulations;
3. Facilitate parties who are undertaking electricity enterprises within the area of its village;
4. Coordinate with parties who are conducting electricity enterprises to protect and preserve public order and peace within the area of its village.
Article 47: Inspection

Inspection of electricity enterprises is the inspection of the undertakings of an electricity enterprise in order that the electricity enterprise be productive, be technically assured, protect and preserve the environment, and to ensure that the electricity enterprise's undertakings are proper and in accordance with laws and regulations.

Article 48: Contents of an Inspection

Inspections of electricity enterprises have the following major contents:

1. Performance of phases of electricity enterprises undertakings;
2. Performance according to a time schedule;
3. Performance of the feasibility study;
4. Performance of an issued plan;
5. Performance of technical safety measures;
6. Standards for electrical equipment;
7. Construction, installation, and management of electrical equipment;
8. Application of measures to limit environmental impacts;
9. Payment of damages to the environment and peoples lives and property;
10. Inspect the financial system and social welfare policies;
11. Performance of other regulations relative to undertakings of an electricity enterprise.

Article 49: The Technical Inspection Committee

In order that the building, installation, and undertakings of an electricity enterprise be technically guaranteed, ensures safety, and protects and preserves the environment, the Government may create a technical inspection committee which shall be comprised of the Ministry of Industry and Handicraft and other relevant ministries or agencies. That technical inspection committee shall be automatically terminated after having completed its duties as assigned.
Chapter XI

Measures [to be applied to those] Who Are Productive and Against Violators

Article 50: Policies for those who are Productive

Individuals or organizations achieving excellent results in the undertakings of electricity enterprises and the protection and preservation of the environment shall receive commendations and shall enjoy various policies: [financial] credit or extensions of the concession or other policies.

Article 51: Measures Against Violators

The following major measures shall be applied to those who violate this Law:

1. Educational and training measures;
2. Fines;
3. Criminal measures.

In addition, violators may receive additional punishment: suspension of business undertakings, withdrawal of licenses, nationalization of vehicles, or other equipment used in the offense, or suspension of payment for electricity.

Article 52: Educational and Training Measures

Individuals or organizations who have violated this Law in an immaterial manner: failure to report regarding the undertakings of the electricity enterprise, failure to timely make reports, failure to adhere to technical standards which failure is not dangerous shall be educated and trained.

Article 53: Fines

Individuals or organizations who have violated this Electricity Law shall be fined an equivalent of the amount of actual damages due to any one of the following acts:

1. Undertaking electricity enterprise [business] without approval;
2. Installing electricity without approval;
3. Installing electricity into one's home without a meter;
4. Allow others to draw electricity from one's home without approval;
5. Modifying electricity meters;
6. Failing to adhere to safety standards;
7. Failing to adhere to standards to limit adverse environmental impacts;
8. Failing to pay obligations, taxes, and duties;

9. Failing to pay damages which one causes to the environment, to peoples lives and property;

10. Failing to cooperate with electricity officials in [their] administrative and inspection [duties].

**Article 54: Criminal Measures**

Any individual violating this Law which act is a criminal violation: cutting of electrical lines, destroying electrical equipment, abuses one's title and position to derive personal benefit from electricity activities, failure to apply safety measures which causes a loss of life, damage to health or causes a person to become handicapped or causes damage to State assets, to cooperatives, or to the public shall be punished according to the Penal Code.

**Chapter XII**

**Final Provisions**

**Article 55: Implementation**

The Government of the Lao Peoples Democratic Republic is the party who shall implement this Law.

**Article 56: Effectiveness**

This Law is effective ninety (90) days from the date that the President of the Lao Peoples Democratic Republic issues a decree promulgating it.

Persons or organization who have received concessions before the date this Law becomes effective have the right to continue their enterprise operations. In the case that the provisions of this Law conflict with their interests, they have the right to propose to the competent agency for consideration of a resolution within a period of one hundred eighty (180) days from the effective date of this Law. Terms and provisions which conflict with this Law are hereby repealed.

Vientiane, date 12/4/1997

[seal of President of the National Assembly]

[signature]

Samane Vignaket
Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

National Assembly No. 02/NA

ROAD TRAFFIC LAW

Adopted by the National Assembly on 8 April 2000
Promulgated by the President of the State on 22 May 2000
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Unofficial Translation by:
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THE ROAD TRAFFIC LAW

Chapter I
General Provisions

Article 1. Function of the Road Traffic Law

The Road Traffic Law has the function of determining principles, regulations, and measures for the establishment, operation, [and] administration of road traffic to facilitate the control of the movement of people and the use of various types of vehicles in lines of surface communication and transportation for convenience, safety, and orderliness, contributing to the protection and maintenance of roads, [and to] the environment in the Lao People’s Democratic Republic and in international relations.

Article 2. Definition of Terms

1. “Road Traffic” is the movement of people or the use of various types of vehicles in lines of surface communication and transportation within the country.

2. “Traffic Regulation” is a detailed regulation that tells road users how to strictly comply with [such regulations].

3. “Traffic Signal System” is traffic signs, traffic signals, and traffic symbols.
   - “Traffic Sign” is a symbol that tells how to follow traffic regulations on a road.
   - “Traffic Signal” is the telling of traffic rules on a road by means of lights, colors, sounds, a person, or a model.
   - “Traffic Symbol” is a range of symbols installed, engraved, written, [or] drawn on the surface of the road, on the shoulder, at the roadside, [or] above a road to warn and to facilitate traffic.

Article 3. Promoting the Development of the Road Traffic System

By means of appropriate policies, the State promotes all economic parties, both domestically and abroad, to contribute to the development, construction, maintenance, installation, and protection of the road traffic system.

Article 4. Obligations of Travelers

All Lao citizens, [resident] aliens, stateless persons, and foreign persons who travel on the roads within the territory of the Lao PDR must strictly respect and adhere to the Road Traffic Law, [and
other] traffic regulations, and [these people are also] obligated to contribute to protecting [and] maintaining the roads.

Chapter II
Road Traffic Rules

Article 5. General Rules

Road traffic in the Lao PDR uses the right hand side [of the road]. Those using the roads must strictly adhere to the Road Traffic Law and [other] traffic regulations. It is prohibited for individuals or organizations to create obstructions or things that may cause an accident, destruction of public property or destruction of the Traffic Signal Systems along the roads.

Road traffic regulations must be integrated into curriculum at each level of schooling as appropriate.

Article 6. Officials Controlling Road Traffic

Officials who control Road Traffic are comprised of:

1. Public Roads Police who have the duty to inspect surface transportation on public roads;
2. Traffic Police who have the duty to facilitate and control traffic within a city proper or in the suburbs;
3. Those who have been officially assigned [to undertake such duties].

While fulfilling their duties, traffic control officials must wear uniforms, [and] badges, be posted at locations [where they are] easily seen, and be courteous.

In the case that on any part of a road, there is complex traffic, there are obstructions, an accident, or special traffic, road traffic control officials must promptly resolve such. Instructions, warnings, and recommendations from road traffic officials have higher authority than road traffic signs and symbols installed at that area, and travelers must comply with such instructions, warnings, and recommendations from road traffic control officials.

Article 7. Mechanized Vehicles

All types of vehicles run by engines must have a structure that properly complies with technical standards of the manufacturer factory and regulations provided by the Ministry of Communications, Transportation, Posts, and Construction, i.e.:

- Have safety equipment;
- Have brakes;
- Have headlights and rear lights;
- Have complete signal lights;
- Have rearview mirrors;
- Have a horn that does not exceed standard [noise levels for vehicle horns];
- Have exhaust pipes that ensure no release of loud noise or black smoke in excess of standard, which will pollute the environment.

All types of vehicles operating on the roads must have registered plates, have complete accompanying documents, and must be insured according to Article 17 of the Surface Transportation Law.
Power tillers pulling wagons, *tok toks*, [or] trailers must have headlights and rear lights and have reflectors affixed in the front and in the rear in compliance with regulations issued by the Ministry of Communications, Transportation, Posts, and Construction.

**Article 8. Vehicles not Run by Engines**

All types of vehicles not run by engines, i.e.: bicycles, oxcarts, pushcarts, etc., and other [vehicles] that are pulled, propelled [or] pushed by humans or animals, while operating on the roads must also strictly comply with traffic regulations. Two or three wheeled pedal-driven vehicles must have brakes, headlights, rear lights, and must have reflectors affixed at the front, rear, and sides.

**Article 9. Domesticated Animals**

It is prohibited to raise or release any type of animal on the roads. For the movement of animals on the roads, there must be a person controlling [the animal] and compliance with traffic regulations.

In the event of an accident from domesticated animals, the owner or the controller must be liable for damages caused by [his/her] domesticated animal as provided for in Article 12 of the Tort Law.

**Chapter III**

*Vehicle Drivers*

**Article 10. Age of Vehicle Drivers**

- A bicycle driver must be no younger than twelve years old;
- A motorcycle driver must be at least fifteen years old or older. A person who is [at least] fifteen, but not yet eighteen years old is permitted to drive only motorcycles of 110 cc or less;
- A driver of a three-wheeled vehicle, a power tiller, a *tok tok*, and vehicles with four or more wheels run by an engine must be at least eighteen years old;
- A passenger transport vehicle driver must be at least twenty-five years old.

**Article 11. Drivers Licenses**

A driver of a vehicle run by an engine must hold a drivers license.

Testing and issuing drivers licenses must strictly comply with regulations issued by the Ministry of Communications, Transportation, Posts, and Construction.

Those who will receive driver's licenses must pass a test according to a complete drivers training courses.

A driver's license has a term of five years and can be extended after each expiration. An applicant requesting an extension to a driver's license must be in good health, and must have a proper health certificate from a doctor.

Foreign drivers posted in the Lao PDR including diplomats, experts, [and] staff of international organizations must use Lao PDR driver's licenses. Driver's licenses issued by other countries can be exchanged for Lao PDR driver's licenses. For foreign drivers who are citizens of member countries to treaties or conventions regarding mutual recognition of driver's licenses in which the Lao PDR
participates, can use their own driver's licenses without exchanging them for Lao PDR driver's licenses.

Article 12. Driver Qualifications

Drivers must meet the following qualifications:

- Have a driver's license in compliance with rules;
- Be in good health;
- Strictly comply with traffic regulations;
- Drive not in excess of time periods provided for by regulations;
- Not drive a vehicle while intoxicated and not be addicted to narcotics.

Article 13. Rules for Driving and Transporting

Drivers of all types of vehicles must strictly comply with traffic regulations, i.e.:

- For bicycles, it is permitted that no more than two persons are authorized to ride [such];
- For motorcycles, it is permitted that only one adult and one other child not older than eleven years old ride pillion;
- For three-wheeled pedal vehicles and three-wheeled vehicles with motorcycles attached to the sides, it is permitted for three persons to ride [in those vehicles] including the driver;
- For three-wheeled vehicles and vehicles with four or more wheels, that are run by an engine, are permitted to [undertake] transport as provided for in Article 9 of the Surface Transportation Law, and rules from the Ministry of Communications, Transportation, Posts, and Construction;
- All motorcycle passengers must wear helmets that meet [certain] standards;
- It is prohibited for motorcycle drivers or bicycle drivers to drive more than two abreast;
- It is prohibited to drive in excess of predetermined [speed limits];
- It is prohibited to park where there are signs prohibiting parking and vehicles must be parked [in an] orderly [manner];
- It is prohibited to transport goods or passengers in excess of determined weights and quantities;
- It is prohibited for a driver to use a telephone or watch television while driving a vehicle;
- It is prohibited to transport dangerous substances without permission as provided for in Article 23 of the Surface Transportation Law.

In the event of meeting with an accident [and] there are injured persons, [a driver] must assist in transporting such injured persons to a hospital and notify traffic police or the public roads police.

Chapter IV
Administration of Vehicles

Article 14. Registration of Civilian Vehicles

All types of civilian vehicles run by engines, including heavy machinery, i.e.: bulldozer, excavator, street cleaner, steamroller, and other heavy machinery, must be registered and have proper plates in accordance with regulations issued by the Ministry of Communications, Transportation, Posts, and Construction.
Only authorized State organizations can produce and issue drivers licenses, vehicle registration, and license plates.

**Article 15. Registration of National [Armed] Forces and Peace Keeping Forces**

Vehicles run by engines, which directly serve national defense or peace keeping are registered and have plates from the Ministry of Defense or the Ministry of Interior.

Vehicles run by engines, which serve administrative duties and other service tasks of the Ministry of Defense or the Ministry of Interior must be registered and must have license plates according to regulations regarding civilian vehicles.

**Article 16. Vehicle Imports**

All types of vehicles run by engines imported for registration and permanent use in the Lao PDR must have structural features that comply with the manufacturer's technical standards, must have left-hand steering and must possess quality in accordance with technical standards provided by the Ministry of Communications, Transportation, Posts, and Construction.

**Article 17. Vehicle Assembly and Modifications**

The assembly or modification of vehicles run by engines must meet the manufacturer's technical standards, and must comply with technical standards provided by the Ministry of Communications, Transportation, Posts, and Construction.

**Article 18. Vehicle Repair**

Vehicle repair must guarantee safety and comply with technical standards provided by the Ministry of Communications, Transportation, Posts, and Construction.

**Article 19. Technical Inspection of Vehicles**

All types of vehicles run by engines must pass technical inspection in accordance with rules provided by the Ministry of Communications, Transportation, Posts, and Construction.

**Article 20. Moving Heavy Machinery**

Moving heavy machinery must make use of a trailer or a transportation vehicle that complies with technical standards for transporting such heavy machinery.

**Chapter V**

*Public Roads Police and Traffic Police Administration*

**Article 21. Public Roads Police and Traffic Police Administration**

Public roads police and traffic police are under the administration of the Ministry of Communications, Transportation, Posts, and Construction and the Ministry of Interior.
Article 22. Ministry of Communication, Transport, Posts, and Construction Administration

The Ministry of Communications, Transportation, Posts, and Construction administers public roads police and traffic police in the following aspects:

1. Build and strengthen them politically, ideologically, and build their traffic and surface transportation expertise;
2. Propose promotions, move, commend, and impose discipline to the Ministry of Interior;
3. To provide necessary service vehicles for fulfilling one's duties;
4. To draw up financial budgets, administrative expenses, salaries, bonuses and the application of other policies;
5. To direct and directly command public roads police and traffic police in the implementation of transportation and road traffic inspection duties throughout the country.

Article 23. Ministry of Interior Administration

The Ministry of Interior administers the public roads police and traffic police in the following aspects:

1. Build and strengthen police expertise;
2. To decorate, promote, move, commend, and impose discipline;
3. To provide uniforms, weapons, and other necessary equipment;
4. Establish salaries and other allowances.

Chapter VI
Traffic Control

Article 24. Rights and Duties of the Public Roads Police and Traffic Police

Public roads police and traffic police have the responsibility to facilitate and control traffic, and inspect the adherence to the Road Traffic Law, the Surface Transportation Law, and the Public Roads Law, and traffic regulations, and have the right to inspect vehicle documents and driver documents, educate and train, fine offenders, and enforce compliance to the laws and regulations referred to above.

In the case that it is necessary to detain a person, seize or detain a vehicle that has violated the Road Traffic Law, the Surface Transportation Law, the Public Roads Law and traffic regulations to undertake case processing at that place, public roads police and traffic police must protect that vehicle and that vehicle's accessories and keep such in its original condition. It is absolutely prohibited to use seized or detained vehicles, to destroy evidence, embezzle legal exhibits, or cause damage or loss to such vehicles or accessories.

Article 25. Rights and Duties of Ministry of Communications, Transportation, Posts, and Construction Officials

Officials of the Ministry of Communications, Transportation, Posts, and Construction, at both central and local levels, have the duty to coordinate with public roads police and traffic police in controlling and inspecting load weights of transportation vehicles and passenger vehicles in accordance with the Road Traffic Law, the Surface Transportation Law, the Public Roads Law, and traffic regulations.
Article 26. Inspecting and Resolving Accidents

Wherever an accident occurs, it is mandatory that the traffic police or public roads police undertake an inspection, make a record of, and compile documents for investigation and interrogations, and provide truthful information and evidence in order to prosecute a case under the law and regulations.

In the event that a vehicle has broken down on a road, the driver must be responsible for removing that vehicle from lanes of traffic.

Article 27. Inspecting Documents and Drivers

Traffic control officials have the right and the duty to inspect vehicle and driver documents on the roads at any appropriate community checkpoint.

Each inspection must [be undertaken] by at least two officials.

Chapter VII
Road Traffic Administration

Article 28. Road Traffic Administration Agencies

Road Traffic Administration Agencies are comprised of two levels as follows:

- At the central level, there are: the Ministry of Communications, Transportation, Posts, and Construction, and the Ministry of Interior;
- At the local level there are: the Provincial, Prefectural, and Special Zone Communications, Transportation, Posts, and Construction Divisions and District Communications, Transportation, Posts, and Construction Bureaus.

Article 29. Rights and Duties of the Ministry of Communications, Transportation, Posts, and Construction

In administering road traffic, the Ministry of Communications, Transportation, Posts, and Construction has the following primary rights and duties:

1. To draw up long, medium, and short-term strategic plans regarding the development of road traffic to submit to the Government;
2. To issue regulations regarding traffic administration throughout the country, to monitor, inspect, and evaluate the implementation of the Road Traffic Law, the Surface Transportation Law, and Public Roads Law and traffic regulations in coordination with the Ministry of Interior;
3. To administer, inspect vehicle registration certificates, license plates and drivers licenses throughout the country;
4. To research and analyze accident statistics and the volume of traffic throughout the country;
5. To cooperate with foreign parties and to seek funding sources to develop road traffic;
6. To exercise rights and fulfill other duties as assigned by the Government.
Article 30. Rights and Duties of the Ministry of Interior

In administering road traffic, the Ministry of Interior has the following primary rights and duties:

1. To draw up a budget plan for building up and strengthening police expertise in the traffic police and the public roads police;
2. To coordinate with the Ministry of Communications, Transportation, Posts, and Construction in resolving problems regarding traffic administration, in issuing regulations regarding the inspection [and] control of the implementation of rules and the Road Traffic Law, the Surface Transportation Law, the Public Roads Law, and traffic regulations, and to compile statistics regarding road accidents throughout the country;
3. To monitor, inspect, and evaluate the implementation of the rules and laws mentioned above;
4. To exercise rights and fulfill other duties as assigned by the Government.

Article 31. Rights and Duties of the Communications, Transportation, Posts, and Construction Divisions

In administering road traffic, the provincial, prefectural, and special zone Communications, Transportation, Posts, and Construction Divisions have the following primary rights and duties:

1. To propagate strategic and master plans regarding development of road traffic to transform such into detailed plans for implementation;
2. To administer road traffic, which is comprised of the following primary tasks:
   - Organize orderly road traffic;
   - Establish and administer road signs [and] road traffic symbols for convenient and safe road traffic;
   - Compile statistics on accidents and the volume of traffic;
   - Organize, train, and test for drivers licenses;
   - Inspect and issue technical certificates for vehicles;
   - Issue vehicle registration, driver's licenses, and license plates as assigned by the Ministry of Communications, Transportation, Posts, and Construction;
   - Educate, train, propagandize and disseminate rules and the Road Traffic Law, the Surface Transportation Law, the Public Roads Law and traffic regulations;
   - Research and comment on drafting road traffic regulations and establishing car parks;
   - Administer and directly supervise the public roads police and the traffic police in the implementation of the duty to inspect surface transportation and road traffic at one's locality;
3. To exercise rights and fulfill other duties as assigned by the Ministry of Communications, Transportation, Posts, and Construction.

Article 32. Rights and Duties of District Communications, Transportation, Posts, and Construction Bureaus

In administering road traffic, the District Communications, Transportation, Posts, and Construction Bureaus have the following primary rights and duties:

1. Educate, train, propagandize and disseminate the rules and the Road Traffic Law, the Surface Transportation Law, the Public Roads Law and traffic regulations;
2. Protect and maintain the sign systems, [and] Traffic Symbols;
3. Participate in resolving accidents that occur within one's district.
4. Exercise other rights and fulfill other duties as assigned by Provincial, Prefectural, or Special Zone Communications, Transportation, Posts, and Construction Divisions.

Chapter VIII
Policy towards those who are Productive and Measures against Offenders

Article 33. Policy towards those who are Productive

Any person or organization productively participating in road traffic administration, ensuring safety, order, maintaining cleanliness, the environment, the Traffic Signal System, State and individual properties on roads will be commended and will benefit from appropriate policies that will be determined in detail by the Government.

Article 34. Measures against Offenders

Any person or organization violating any provision of this Law, causing damages to the public, to other's lives, health, property, hygiene, or to the environment will be educated and trained, will be fined, or will be criminally punished depending on the seriousness of the case.

Article 35. Education and Training Measures

Any person or organization committing a minor violation of any provision of this Law, i.e.:

Forgetting [to carry on them] a drivers license or vehicle documents, [have] expired [or] dirtied vehicle documents, broken, unreadable, or improperly affixed license plates will be educated and trained according to rules.

Article 36. Fines

Any person or organization violating any provision of this Law, i.e.:

- Violating traffic lights;
- Violating Traffic Signals;
- Fail to have a drivers license; not have vehicle documents;
- Drive a vehicle in the wrong direction;
- Drive a vehicle while intoxicated;
- Drive a vehicle that [emits] loud sounds in excess of standard;
- Turn on high beams in conflict with rules;
- Fail to turn on lights during night time;
- Turn on only one light (for four wheeled vehicles and above);
- Fail to turn on lights during the day time when the weather is bad, i.e.: heavy rain or thick fog;
- [Emit] black smoke in excess of standard;
- Vehicle has no brakes;
- Deface and create obstructions on roads;
- Fail to have rearview mirrors;
- Fail to wear standard helmets while driving a motorcycle;
- Transporting [items] in excess of weight limits;
A vehicle lacks the necessary complete accessories to keep it in a condition to allow it to be used in compliance with technical safety standards, and other violations of traffic regulations will be fined according to rules;

The Ministry of Communications, Transportation, Posts, and Construction is assigned to research and draft rules regarding violations and rates for fines to submit to the Government for approval.

**Article 37. Criminal Measures**

Any individual committing a criminal offense, i.e.:

- Committing a traffic safety offense;
- Forging drivers licenses, documents, license plates, vehicle engine or chassis numbers;
- Steal or damage signs, sign posts, Traffic Symbols or destroying roads;
- Hooligan-like behavior in traffic;
- Violating the Road Traffic Law, the Surface Transportation Law, and the Public Roads Law or traffic regulations causing accidents, injury, disability, or death.

shall receive criminal punishment.

**Article 38. Additional Punitive Measures**

In addition to the primary penalties provided for Article 35, Article 36, and Article 37 of this Law, offenders will receive additional penalties as follows, i.e.: have traffic-related licenses suspended or withdrawn, have the vehicle used in committing the offense seized or nationalized.

**Chapter IX**  
**Final Provisions**

**Article 39. Implementation**

The Government of the Lao People's Democratic Republic is assigned to implement this Law.

**Article 40. Effectiveness**

This Law is valid ninety days from the date that the President of the Lao People’s Democratic Republic issues an Executive Decree promulgating it.

Terms and provisions conflicting with this Law are hereby repealed.

Vientiane, date 08 April 2000  
President of the National Assembly  
[seal of the President of the National Assembly]  
[signature]  
Samane Vignaket
Decree on the Organization and Administration of Village

Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Prime Minister's office
No.1O2/PM

Decree
on the
Organization and Administration of Village

- Based on Articles 62, 63 and 64, Chapter VII on Local Administration, of the Constitution of the Lao People's Democratic Republic, adopted by the National Assembly on 14 August 1991.

- Pursuant to the study and proposal from the Department of Public Administration and Personnel Management.

The Prime Minister issues the following decree:

Chapter I
Position and Tasks of Villages

Article 1: Villages are where the pluri-ethnic people lead their livelihood and include several social strata, differing occupations; constituting local administrative units established and operating as provided by the Constitution and state laws; implementing the policy guidelines and instructions from superior hierarchy.

Article 2: Any geographical area comprising over 20 households or a population of over 100 co-existing persons without differentiation of ethnic or religion may be organized as village.

Difficult, isolated and strategic areas with fewer inhabitants than as provided in paragraph 1 of Article 2, may be organized as villages if necessary, but shall not comprise less than 20 households. Any area comprising less than 20 households are placed under a neighbouring village.

Article 3: The organization and delineation of village limits are approved by the province governors on the basis of proposals made by the chiefs of districts to which jurisdiction the villages belong.
Chapter II
Organizational Structure of
Village Administrative Authorities

Article 4: A village is headed by a village chief who is responsible for the administration, 1 or 2 deputy village chiefs to assist the chief depending on the village's size.

The village chief is directly elected by eligible voters among the village's population through open or secret ballot. Meetings for the election of the village chief of each village are chaired by a representative of the district chief who is directly appointed by the district chief. Then the results of the election are reported by the district chief to the province governor/municipal mayor for approval.

Article 5: Conditions and Criteria of Village Chiefs

Conditions:

1. Lao nationality by birth, without differentiation of gender or ethnic and volunteering;
2. Between 21 years to 60 years of age;
3. No record of court penalty for incarceration;
4. Resident of the concerned village for at least 2 year;
5. Not employed as civil servant;

Criteria:

1. Loyal and honest towards the Party and the State, implementing the superiors' instructions with responsibility;
2. Displaying correct attitude, receiving the confidence and friendship of the population;
3. Skilled in mobilizing, educating and grouping the village's internal solidarity, and in considering the people's views;
4. Literate in Lao language.

Article 6: In addition to a chief and deputy chiefs, a village also includes the following committees to assist the village chief:

1. Economic committee;
2. Defence-order committee;
3. Socio-cultural committee.

Each committee is headed by 3 persons, among which the village chief and his/her deputies, who are the chiefs of each of the above mentioned committees.

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Article 7: A village is divided into units, one unit comprising 10-15 households. Each unit is headed by a unit chief and the person responsible for the unit's order (police) who are appointed by the village chief. In addition, the village also includes several legal organizations, such as party organization, mass organizations, vocational organizations and other association. These organizations operate in accordance with their tasks and regulations, but are subject to the village's management of rules and laws.

Chapter III
Rights and Duties of Village Chiefs and their Assisting Committees

Article 8: Duties of the Village Chiefs

1. Education, dissemination of policy guidelines among the village population and mobilization of the pluri-ethnic population's solidarity in the implementation of the regulations, laws and instructions from superior hierarchy; mobilization of the village's population to fully exercise their civil rights and obligations as provided in Chapter III of the Constitution and state laws, such as: military service, tax obligations and others;

2. Organization and leadership of village activities' implementation;

3. Management, maintenance and preservation of land, forests, streams, aquatic and wild life; protection of the environment, cultural sites, schools, hospital and other public assets located within the area of their villages;

4. Coordination with technical personnel and tax authorities for the collection of statistics, registration, land tax and other imposts within the village;

5. Formulation of village development plans; guiding the population to implement economic construction plans; development of the agro-forestry production, handicraft, infrastructure; use of sciences in production; progressive improvement of each household's living conditions;

6. Provision of facilities; coordination with activities of mass and social organizations; request of opinions from mass organizations for the joint and successful implementation of the villages' duties;

7. Education and mediation of differences among the population. In case of unsuccessful mediation or severe offence, the matter is reported to the authoritative officer of the State for settlement in accordance with the laws and regulations;

8. Monitoring, establishment and management of family registries; issuance of certificates of birth, death and marriage; registration of transaction and other legal
documents.

9. Report the results of village activities to the district chief on a regular basis and with responsibility before the supervising district chief.

**Article 9: Rights of village chiefs**

1. Designate the venue and convene meetings of administrative committees and chair such meetings;

2. Nomination of the village deputy chiefs and assisting committees for proposal to the village meeting for adoption, and to the district chief for approval;

3. Control the activities of and propose the removal of village deputy chiefs, assisting committees in case of offences and negligence towards their duties, before the district chief for approval;

4. Issuance of village regulations consistent with the laws and the fine national traditions for the common benefit of the villages;

5. Make use of all measures provided in laws, regulations and provisions of the State and the specific regulations of the village for the village's management in peace and orderliness;

6. The right to conduct activities within the 2 years of their term of office. If volunteering and approved by the superior hierarchy, the right to be re-elected;

7. Contact, coordinate with neighbouring villages and sectors at the district, provincial, municipal and central levels located within the village area in the conduct of activities for the village's common benefit;

8. Receive annual allowances form the state budget or compensation from the State under different forms;

9. Present the populations' complaints to the superior hierarchy;

10. Use the village stamp in official matters;

11. The village deputy chiefs have the duty to assist the village chief. In the absence or illness of the village chief, a village deputy chief will be assigned to act on his behalf. Eligible candidates to the position of village deputy chiefs must meet the same conditions and criteria as for the village chief.
Article 11: The Village Committees as Mentioned in Article 6 have the following Duties

1. Economic committee
   - In charge of mobilizing and encouraging the agricultural and forestry activities: plantation of crops, fruit trees; forestation, preservation of forest, forest reserves and forests at the sources of streams;
   - Manage and gather statistics on the results of production, business and other income of the village on a regular basis;
   - In charge of monitoring and reporting storms, animal epidemics, natural disasters destroying crops and forests within the village area;
   - Manage and gather statistics on different economic organizations, such as: shops, trade units, services, commercial production, etc;
   - Organize the coordination with concerned state authorities for the collection of land taxes and other taxes within the village;
   - Promote and organize vocational groups and protect their rights and interest.

2. Defence-order committee
   - Organize the village orderliness and peace protecting unit;
   - Assist the village chief in avoiding incidents which could occur within the village area and mediate in differences between villagers. Educate on the differentiation between good and bad. Alleviate internal disputes with the aim of increasing solidarity, concordance and mutual assistance within the village;
   - Coordinate with all forces of the State located within the village area for the joint implementation of defence and order activities;
   - Lead the village police as mentioned in Article 7 and village militia in their operations and duties as assigned;
   - Organize guard cells and units in case of incidents, disasters and emergencies as instructed by the superior hierarchy;

3. Socio-Cultural Committee
   - Recommend and encourage the population to join their efforts in common activities,
supply materials for the construction and maintenance of public utilities, such as: hospitals, schools, pagodas, roads, drains and others;

- Recommend the population to comply with the 3 principles of sanitation: clean livelihood, food and clothing; coordinate with health authorities for treatment and child immunization;

- Organize traditional festivities of the village and the locality; promote and preserve such fine traditions for the forthcoming generations;

- Manage social organizations in the village for activities in accordance with their regulations and effective provisions and laws;

- Implement policies of assistance to accident victims, poor individuals or families, lacking materials or labour, unable to provide for themselves, such as: elders, divorcees, widows, orphans, handicapped, etc.

Chapter IV
Work Methods and Village Meeting System

Article 12: The village implements work methods according to the principle of centralized democracy and the regime of sole leader

- At the receipt of instructions and notices from superior hierarchy, the village chief calls a meeting of the village committee to which the village Party committee's representative is invited for consultation and adoption of implementation methods;

- Formulated plans are implemented, monitored and controlled, assessed and reported to the superior hierarchy on a regular basis;

- Contract and request instructions from central, provincial, municipal and district departments and units;

- Contact neighbouring villages for exchange of views and experience in the implementation of duties in view of ensuring mutual assistance in the effective preservation of order and implementation of laws.

Article 13: Meetings of the village administrative authorities include the village chief, deputy chiefs, members of the various committees, and chiefs of units mentioned in Articles 6 and 7. These meetings are convened at least once a month. If necessary, the village chief may convene extraordinary meetings. Such meetings will deliberate on the village's common issues; and provide views in assistance to the village chief for decision making.

- The village meetings which include the chiefs of each household and chaired by the
village chief, is convened once every 3 months for dissemination. If necessary, the village chief may convene extraordinary meetings.

**Chapter V**

**Expiration of the Status of Village Chief and Election of new Village Chiefs**

**Article 14: The position of Village Chief and Chief of various Committees:**

The position of village chief terminates in the following cases:

- Expiration of the term of office;
- Death;
- Authorized resignation;
- Dissolution of the village under his administration;
- Province governors, municipal mayor instruct their removal at the request of district chiefs after investigations have shown their insufficiencies and lack of capacity to perform their duties;
- The village meeting approve their removal with 2/3 of votes;
- Abandonment of duty for 3 months without assignment of works to their deputies.

- As the position of village chief is terminated for the above reasons, other positions occupied by the village chief will also be terminated.

**Article 15: Election of new village chief**

If the position of village chief is vacant as mentioned in Article 14, the district chief's representative must convene a village meeting for the election of a new village chief within 15 days at the latest. Pending the take over by the new village chief, the meeting will elect a temporary village chief until the new village chief's official take over ceremony. Except in case of vacancy of the position of village chief due to the expiration of the term of office, the outgoing village chief shall act temporarily until the new village chief is appointed.

**Article 16: Village chief election procedures**

- Before an election, the outgoing village chief and deputy chiefs must resign before the election meeting which is chaired by the district's representative;

- Based on requested opinions and unanimity of the village meeting, the district's representative will select 5 senior individuals in the meeting to form a presidium and select one young individual responding to the criteria as secretary for the organization and leadership in the election.
Chapter VI
Final provisions

Article 17: Village chiefs possess their own stamps for official use.

Article 18: The Department of Public Administration, province governors, municipal mayor and district chiefs are entrusted to strictly implement this Decree.

Article 19: This Decree is effective from the day it is signed.

Vientiane, July 5, 1993
Prime Minister of the Lao PDR

[seal and signature]
Khamtay Siphandone
ADB TA 3746-LAO

Capacity Building
For
Environment and Social Management
In
Energy and Transport Sectors

National Policy
on
Resettlement and Compensation
(Final Draft)

Science, Technology and Environment Agency

April 25, 2003
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## List of Acronyms and Abbreviations

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<td>AP</td>
<td>Affected Person</td>
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<td>EMDP</td>
<td>Ethnic Minority Development Plan</td>
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<td>GoL PDR</td>
<td>Government of Lao Peoples Democratic Republic</td>
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<td>GRC</td>
<td>Grievance Redress Committee</td>
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<td>IA</td>
<td>Implementing Agency</td>
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<td>Initial Environmental Examination</td>
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<td>MO</td>
<td>Mass Organizations</td>
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<td>Non-Government Organization</td>
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PART I. INTRODUCTION

1. Background
1.1 Development projects, even when undertaken in the public interest, have social impacts and associated costs on individual persons, communities, and the environment. Said adverse social impacts may be any or a combination of the following: loss of abode, loss of fixed assets, loss of income and/or employment, displacement, separation of family members, disintegration of communities, etc. These impacts may be marginal or severe and/or irreparable. Yet, these adverse social impacts are often borne by project-affected persons (APs) not by their own wish but involuntarily.

1.2 The resettlement efforts to mitigate adverse social impacts of development projects need to be carried out within an overall legal framework following clearly defined resettlement principles and operational procedures. Additionally, the Lao PDR's policy on poverty reduction needs to be integrated into resettlement efforts, with special attention to vulnerable groups. In view of the Government's efforts to give impetus to its development efforts and to deal with adverse social impacts and implementation problems, there is an urgent need for a national policy on involuntary resettlement and compensation with an aim to: (i) integrate social dimensions in development projects, (ii) address measures to mitigate adverse social impacts with a particular focus on vulnerable groups, and (iii) have a comprehensive approach to address social issues.

1.3 The National Policy on Resettlement and Compensation, hereinafter the 'Policy', addresses social impacts that result due to involuntary acquisition of assets and changes in land use, and key social concerns.

2. Definitions. Definitions of key terms are provided as follows:

a) Compensation. Compensation means payment in cash or in kind for an asset to be acquired or affected by a project at replacement cost.

b) Cut-off Date. 'Cut-off date' is the date prior to which the occupation or use of the project area makes residents/users of the project area eligible to be categorized as affected persons. In many projects, the cut-off date coincides with the commencement of the census of affected persons within the project area boundaries. Persons not covered in the census are not eligible for compensation and other entitlements.

c) Entitlements. Range of measures comprising compensation, income rehabilitation assistance, transfer assistance, income substitution, and relocation which are due to affected people, depending on the type and degree of their losses, to restore their economic and social base.

d) Implementing Agency (aka Project Proponent/Project Authority/Executing Agency) is the agency, public or private, that is responsible for planning, design and implementation of a development project.
e) **Land Acquisition** means the process whereby a person is compelled by a public agency to alienate all or part of the land a person owns or possesses, to the ownership and possession of that agency, for a public purpose in return for compensation.

f) **Project Affected Person (PAP/AP)** includes any person or persons, household (sometimes referred to as project affected family), a firm, or a private or public institution who, in the context of acquisition, or repossession, of assets or change in land use, as of the cut-off date, on account of the execution of a development project, or any of its subcomponents or part, would have their:

   i) Standard of living adversely affected;
   
   ii) Right, title or interest in all or any part of a house, land (including residential, commercial, agricultural, plantations, forest and grazing land) or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily adversely affected: or
   
   iii) Business, occupation, place of work, residence, habitat or access to forest or community resources adversely affected, with or without displacement.

AP means persons or affected household and consists of all members of a household residing under one roof and operating as a single economic unit, who are adversely affected by a project or any of its components. For resettlement purposes, affected persons will be considered as members of affected households.

g) **Rehabilitation** means assistance provided to APs seriously affected due to the loss of productive assets, incomes, employment or sources of living, to supplement payment of compensation for acquired assets in order to improve, or at least achieve full restoration of living standards and quality of life to pre-project level.

h) **Relocation** means the physical shifting of an AP from his/her pre-project place of residence, place of work or business premises.

   i. i) **Replacement Cost** is the amount needed to replace an asset and is the value determined as compensation for: Agricultural land the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes;

   ii. Land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes;

   iii. Houses and other related structures based on current market prices of materials, transportation of material to construction site, cost of labor and contractor’s fee, and cost of any registration and transfer taxes. In determining replacement cost, depreciation of the assets and value of salvaged building materials are not taken into account and no deductions are made for the value of benefits to be derived from the project;

   iii. Crops, trees and other perennials based on current market value; and

   iv. Other assets (i.e. income, cultural, aesthetic) based on replacement cost or cost of mitigating measures.

j) **Resettlement** refers to all measures taken by the Project Proponent to mitigate any and all adverse social impacts of a project on the APs, including compensation for lost
assets and incomes and the provision of other entitlements, income restoration assistance, and relocation, as needed.

k) **Social Assessment (SA) or Social Impact Assessment (SIA).** SA or SIA is a framework for incorporating social analysis and participatory process in project design and implementation.

l) **Vulnerable group.** These are distinct groups of people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and specifically include: (i) female headed households with dependents, (ii) disabled household heads, (iii) households falling under the generally accepted indicator for poverty, (iv) elderly households with no means of support and landlessness, (v) households without security of tenure, and (vi) ethnic minorities.

**PART II. SCOPE, ELIGIBILITY & LEGAL FRAMEWORK**

3. **Scope of the Policy**
The Policy would be applicable to all development projects carried out by public and private sector, regardless of funding sources, resulting in acquisition, of land and/or other assets, change in land use and restriction on access to community resources affecting community livelihood and income sources.

4. **Eligibility**
All people residing, cultivating or making a living within the area to be acquired for a project as of the formally recognized cut-off date should be considered as project affected persons (APs) for purposes of entitlements to compensation, resettlement and rehabilitation assistance in accordance with the policy, and lack of legal title to the land or structure affected by project should not bar any person for such entitlements/assistance.

5. **Legal Framework**
The Policy is based on the following laws and decrees that provides legal framework for resettlement:

- The Constitution of the Lao PDR
- The Land Law No. 01/97 SPS, dated 12 April 1997
- The Forestry Law No. 01/96, dated 11 October 1996
- The Water and Water Resources Law No. 02/96, dated 11 October 1996
- The Environmental Protection Law No. 02/99 SPS, dated 3 April 1999
- The Electricity Law No. 02/97 SPS, dated 12 April 1997
- The Road Law No. 04/99 SPS, dated 03 April 1999
- The Mineral Resources Law (April 1997)
- The Town Planning Law No. 03/99 SPS, dated 03 April 1999
- Regulation 1266/95 of MCTPC on Valuation of Vehicles, Houses, Built Structures and Household Facilities for Government Employees-Personnel

**PART III. OBJECTIVES**

6. **Objectives.** The objectives of the Policy include the following:
- Projects are designed so that resettlement is avoided or, if unavoidable, minimized by examining all design options available to the project and the losses incurred by affected people are redressed such that APs share project benefits, assisted to develop their economic, social and cultural potential in order to improve or at least restore their incomes and living standards to pre-project levels and are not worse off than they would have been without the project.
• Attention is paid to affected ethnic minority and other vulnerable groups, especially the poor, in order to enhance their future prospects and for poverty alleviation.
• The entire resettlement process is carried out through a meaningful involvement of project-affected communities, and their existing social and cultural institutions are supported to the greatest extent feasible.
• Resettlement is envisioned and carried out as an integral part of the development project.

PART IV. COMPENSATION AND ENTITLEMENTS

7. Compensation Principles
7.1 APs will be provided with compensation for their lost assets affected in full or in part, at full replacement cost.

7.2 Where significantly large or entire land holding affected by a project, the general mechanism for compensation for affected agriculture, residential or commercial land will be through provision of "land for land" arrangements of equivalent size and productivity and at location acceptable to the AP. In case suitable land is not available, and at informed request of the AP cash compensation at current market value will be provided in addition to the assistance for relocation. However, when the portion of the land to be lost represents 20% or less of the total area of the landholding with remaining area viable for continued use, where the livelihood is not land-based, cash compensation at full replacement value for the affected portion will be provided. In cases where only part of the land holding is affected but the remaining land becomes economically unviable, the AP will be entitled to surrender the entire holding and to compensation for entire holding at full replacement value, or land-for-land option.

7.3 If the house or structure is only partially being affected by the Project and the remaining structure is rendered unviable or in area less than the minimum house size under the prevailing standards, the AP will be entitled to surrender the entire structure and to compensation for the entire structure at full replacement cost without depreciation or deductions for salvaged material.

7.4 In case of APs affected by partial loss of structures and the remaining structures are viable for continued use, they will be entitled to assistance in cash or material for restoration of the remaining structure in addition to the compensation at replacement cost for affected portion.

7.5 APs whose land or assets are temporarily taken by the works under the project will be fully compensated for their net loss of income, damaged assets, crops and trees, as the case may be. Assets which are only temporarily affected or inoperable, will be compensated at 10% of the replacement cost of affected assets provided that such assets or properties are required by the project for a maximum of 6 months. In case the assets are required by the project for periods longer than six months, the amount of compensation should be negotiated with the owner of said property, and the project shall insure that the land and structures are returned in its pre-project state.

7.6 Tenants, who have leased a house / structures for residential or other purposes and affected by the project, will be provided with a cash assistance equivalent to three months rental allowance and expenses to cover for other losses, and will be assisted in finding alternative rental accommodation.

7.7 APs without any legal title or ownership right to the affected land and assets they occupy should be compensated for their lost assets at replacement cost. If needed such
APs will be provided additional assistance to ensure that they are able to improve their household income levels and are not worse-off due to the project.

7.8 All previous claims and unresolved issues related to tenure status and ownership of land and other assets on each sub-project or components will be resolved prior to initiating any new land acquisition measures on the respective sub-project or component.

8. **Other Assistance During Relocation and Transition Period**
8.1 APs displaced and severely affected due to the loss of incomes and means of livelihood would be provided with a food allowance and suitable development assistance after displacement during the transition period until they are able to restore their incomes or livelihood standards or reach the targeted level of household incomes on a sustainable basis.

8.2 All displaced persons will be given a transport allowance or assisted in transfer to the resettlement site or their choice of relocation, as the case may be.

8.3 In the case of loss of business, APs will be provided with a special allowance for the loss of business income during the transition period.

9. **Economic Rehabilitation**
9.1 All APs severely affected by the project due to the loss of productive assets (agricultural, commercial or industrial land), means of livelihood, incomes, employment or businesses, and access to community resources will be entitled to rehabilitation measures including income restoration programs, training to improve skills and other assistance for self-employment; over and above their entitlements for compensation and other allowances, enabling them to attain, at a minimum, pre-project livelihood levels on sustainable basis.

9.2 These rehabilitation measures would specifically focus on vulnerable groups such as households without tenure security or with weak tenure status, female-headed households, disabled-headed households, itinerant workers, households falling below the national poverty line or those severely affected by the project and are likely to fall below the poverty line, elderly households with no means of support and landless households. Adequate assistance, in addition to compensation for affected assets and other allowances, should be provided such that their economic and social well-being can be improved and to enable such APs achieve household income targets set above the national poverty line. At least 30% of such rehabilitation assistance measures will be reserved for women.

9.3 For displaced persons whose land-based livelihood are affected due to the project, preference should be given to land-based resettlement strategies, or where land is not available, non-land-based options built around opportunities for employment or self-employment in addition to cash compensation for lost assets.

10. **Community Services and Resources**
10.1 In cases community facilities and infrastructure such as schools, factories, water resources, roads, sewage system or electrical supply is damaged due to the project, the project developers will ensure that these would be restored or repaired as the case may be, at no cost to the community.

10.2 Any acquisition of, or restriction on access to resources owned or managed by affected community as a common property should be mitigated by arrangements ensuring access to improved or at least equivalent resources on a continuing basis.

11. **Local Culture & Practices**
11.1 Local cultural and religious properties, practices and beliefs should be respected and to the extent possible preserved.

11.2 Where local communities elect to make voluntary contribution of affected land without compensation in accordance with traditional practices, this should be acceptable only for marginal impacts (partial impact on land without causing any displacement or impact on structures, and with remaining assets viable for continued use) and only when direct benefits to affected people can be assured. The process of consultation with APs should be conducted in an open and transparent manner and decisions for ‘voluntary’ contribution should be based on ‘informed choice’ of affected people. People who elect to make voluntary contributions must be informed of their rights to compensation, and the process and decisions must be documented.

12. Ethnic Group Issues
12.1 Where in a project cultural minorities are affected, the mitigation measures and social and economic benefits they receive to improve their status would be in harmony with their cultural preferences and would be decided in consultation with affected communities. The mitigation measures and assistance should also include institutional strengthening and capacity building of tribal elders, and community groups working on resettlement activities.

12.2 Community participation and consultation framework and grievance redress mechanism for ethnic minority groups should be developed in culturally appropriate ways familiar to the affected community, in consultation with their leaders, and in close collaboration with local officials.

13. Resettlement Linked to Project
Resettlement transition period should be minimized and the acquisition of assets, compensation payment in full, resettlement and rehabilitation activities for a segment/section or phase (except where long-term rehabilitation measures such as vocational training or other measures recommended) should be completed prior to the initiation of construction work under the respective segment/section or phase thereof.

PART V RESETTLEMENT SITE DEVELOPMENT

14. Resettlement Site Development
14.1 All relocating persons should be provided with suitable housing or developed house-lots, shop-lots as necessary, agricultural sites of sufficient size with productive potential and locational advantages better or at least equivalent to the old site. Replacement agricultural land, house/business plot will be as close as possible to the land that was lost and/or acceptable to the APs.

14.2 The replacement land for residential resettlement will be provided in fixed plot sizes according to the prevailing standards and planning practices. However, if the lost land of AP is in size larger than the plot sizes for relocation, a cash compensation to cover the difference of the area will be given to the AP.

14.3 All replacement land for agriculture, residential and businesses will be provided with secured tenure status and without any additional cost, sales taxes, fee, and surcharge to the APs at the time of transfer. Land titles for replacement land shall be issued in the joint names of husband and wife.

14.4 Attention should be paid to ensure that resettlement site development does not cause any adverse environmental impacts to the surrounding areas. All resettlement sites for relocation of displaced persons will be provided with adequate access to public facilities and services, income earning opportunities and market.
14.5 Where relocation is considered necessary, the ‘host’ community would also be entitled to compensation and other assistance similar to the project affected persons. Infrastructure and public services provided to the host community as necessary to improve, restore, or maintain accessibility would be the same level as provided for the displaced persons.

PART VI PUBLIC PARTICIPATION & CONSULTATION

15. Public Participation and Consultation
The resettlement process should be carried out in a participatory manner, in which stakeholder concerns are taken into account at all stages of the project cycle, particularly during the planning and implementation phases of land acquisition, valuation and resettlement process. APs should be fully informed of the provisions of the policy, their entitlements to compensation for their lost assets, allowances and other assistance as provided for in the Policy.

16. Grievance Redress Mechanism
16.1 There should be effective mechanisms in place for hearing and grievance redress during the resettlement planning and implementation in a project.

16.2 The GoL PDR at the request of the Project authorities will establish a Grievance Redress Committee (GRC) for each district to address complaints and grievances pertaining to land acquisition, compensation and resettlement and to pre-empt all disagreements being referred to courts. The committee will consist of:

   i) District official
   ii) Village heads
   iii) Representative of the APs, other than the village head;
   iv) Village elders or representatives of MO;
   v) Project official.

16.3 Grievances related to any aspect of the project or sub-project will be handled through consultations conducted in a transparent manner and aimed at resolving matters through consensus at the project level before complainants forward these to higher level and ultimately to the court of law. The Project Authorities will document all complaints received in writing (or written when received verbally) from the APs.

16.4 APs will be exempted from all administrative and legal fees incurred in pursuant to the grievance redress procedures including cases of complaints taken to the court of law.

PART VII REPORTING AND DOCUMENTATION

17. Reporting and Documentation
The project Proponents would carry out necessary studies and field investigations and prepare following required reports and documents for submission to the respective ministry and the Regulatory Agency for review and approval.

17.1 Initial Social Assessment (ISA) / Land Acquisition Assessment
Project Proponents will carry out necessary field investigations for ISA, either as part of the IEE or as a standalone exercise, in order to identify relevant social issues, likely impacts and the types of groups of people likely to be affected by the project. The report on ISA should be submitted by project proponents to the relevant ministry (in the case of private sector developer) and to the Regulatory Agency for review and approval prior to proceeding for further studies.
17.2 Social (Impact) Assessment
In major projects with likely indirect and economic impacts on communities, within or in the vicinity of project areas, project proponents will conduct social assessment at the pre-feasibility or feasibility stage of the project preparation, as the case may be, to address indirect social and economic impacts using appropriate mitigation measures with special attention paid to vulnerable groups, including ethnic minority groups. The report on social assessment should be prepared by project proponents for submission to the relevant ministry (in case of private sector developer) and to the Regulatory Agency for review and approval to facilitate project process.

17.3 Resettlement Plans
17.3.1 Land Acquisition and Compensation Report
In case the impacts of the project are mostly marginal such that less than 200 persons (about 40-50 families) are affected by the project either marginally or with limited displacement, a Land Acquisition and Compensation Report for each project, sub-project, or component will be prepared by project proponents and submitted to the Regulatory Agency for review and approval. In case of private sector project, the report should be first submitted to the relevant ministry. The ministry, upon its satisfaction with the report will submit to the RS for review and approval. Compensation, resettlement and rehabilitation activities will only commence after the report is found acceptable by relevant ministry and approved by the RA.

17.3.2 Resettlement Plans (RPs)
In case the impacts of the project are severe, regardless of number of affected people or where more than 200 people (40-50 families) are affected by the Project, its component or sub-project, a Resettlement Plan (RP) for each component or sub-project will be prepared in accordance with the provisions of this Policy. Project proponents will submit required RP to the RA for review and approval. In case of private sector projects, the RP should be first submitted to the relevant ministry. The ministry, upon its satisfaction with the RP will submit to the RA for review and approval. Compensation, resettlement and rehabilitation activities will only commence after the RP is found acceptable by the relevant ministry and approved by the RA.

17.4 Ethnic Minority Development Plans (EMDPs)

a. Where in a project any ethnic minority groups are affected, particular attention should be paid to collect additional information focusing upon household ownership of economic and productive assets; economic information of community (e.g., brief information on economic and natural resources, production and livelihood systems, tenure systems); social information of community (e.g., brief description of kinship, value system, types of social organizations of formal/informal groups, farming groups, etc.), especially those that can help the group in adjusting to potential impacts from the project; and potential impact of sub-project on the social and economic livelihood. The RP should include a separate section to address ethnic minority issues and suggested actions to ensure that the social and economic benefits they receive are in harmony with their cultural preferences.

b. Where the impacts on ethnic minority are likely to be significant, a standalone Ethnic Minority Development Plan will be prepared. The description of resettlement measures and the types of development assistance proposed will ensure that the social and economic benefits proposed will be in harmony with their cultural preferences. Where a standalone EMDP is necessary, the project proponent will be required to submit it to the relevant ministry (in case of private sector developer) and to the RA for review and approval.
PART VIII  MONITORING, SUPERVISION & EVALUATION

18.  Resettlement Monitoring and Supervision
18.1 Adequate arrangements should be made for effective and timely supervision and internal monitoring of the implementation of the resettlement and rehabilitation measures.

18.2 In projects with major resettlement component, an experienced and independent external monitoring agency would be contracted by project authorities to periodically carry out external monitoring of the implementation of resettlement activities in accordance with the RPs. Mechanisms should be put in place to involve the affected community in monitoring of resettlement implementation activities. The External Monitoring Agency will submit monitoring reports to the project authorities regularly. The Implementing Agency will regularly provide a copy of the external monitoring reports to the RA.

18.3 In projects with major resettlement component, project authorities will make provision for post-evaluation of resettlement implementation activities, six months to one year after the completion of economic rehabilitation measures in the project, to check whether the economic rehabilitation objectives of the Policy and the RPs have been achieved. If the evaluation indicates that the APs have not been able to achieve the stated objectives and income targets, project authorities will make arrangements for provision of additional assistance to meet the stated objectives.

PART IX  RESETTLEMENT COST AND BUDGETS

19.  Resettlement Cost and Budget
19.1 Each RP will include detailed cost estimates for compensation and other resettlement entitlements and relocation of APs, if that be the case, with a breakdown by category of APs; agricultural, residential and business land; houses, structures and other fixed assets affected; rehabilitation assistance, transport and other allowances; monitoring and evaluation; management and administration; phases of the project and by financial year. The cost estimates will make adequate provisions for contingencies.

19.2 Total estimated cost of RPs would be included towards the cost of the project. In the case of cost overruns due to unforeseen circumstances or delays, the project authorities/proponents will allocate additional funds as may be necessary.

19.3 In the case of a private sector project developer, respective ministry will devise suitable mechanism, such as ‘imprest account’ to ensure sufficient funds to meet all costs of resettlement activities prior to final approval for the project.

PART X  INSTITUTIONAL ARRANGEMENTS

20.  Regulatory Agency (RA)
20.1 Science, Technology and Environment Agency (STEA) in the Office of the Prime Minister is designated as the Regulatory Agency (RA) charged with the responsibility for Policy oversight. The RA will ensure compliance to the Policy with the power to enforce it and to perform an oversight function. This will also ensure that projects are checked for compliance with the Policy.

20.2 STEA is authorized to: a) disseminate information on the Policy through a combination of information and education campaign programs; b) review, evaluate and approve necessary reports and documents, including ISA, Social Assessment, Resettlement Plans, and EMDPs and issue approval for implementation; c) review monitoring reports of the external monitoring agency; and d) provide technical guidance to Implementing Agencies
and other private sector project developers, where necessary, in the preparation of necessary documents, and provide training at national, provincial/district levels.

20.3 STEA is charged with assisting the Government of Lao PDR in preparation of necessary Decree and Implementation Regulations on Involuntary Resettlement and Compensation and for formulation and promulgation of Technical Guidelines (Operational Manual) relative to the various aspects of resettlement plan preparation and implementation.

21. Implementing Agency
Implementing Agencies (Project Proponents), both public or private sector, will have mainstream responsibilities for a project, including making adequate institutional arrangements to ensure effective and timely field investigations and studies for preparation of resettlement plans and/or EMDPs, public consultations, and implementation of resettlement activities, in accordance with the provisions of this Policy, as an integral part of the project and for making adequate and timely provision of necessary funds.

22. Other Relevant Ministries or Authorities
a. While an Implementing Agency remains responsible for carrying out necessary surveys and preparing other required documentation, it will receive assistance as requested from other ministries or agencies which may be useful for inputs into resettlement planning and implementation including planning and delivery of economic rehabilitation assistance.

b. District and local authorities, which have a critical role in the resettlement process, will assist and provide support to the Implementing Agency in implementing the resettlement process. District and local authorities will also assist the Implementing Agency, as may be requested, to ensure public consultation and participation in all aspects of the resettlement process.

23. MO / Other Private Sector Institutions / Domestic Consultants
MO and other private sector institutions will be part of the consultative process at all levels so that the concerns of APs are fairly represented. Where possible, MO, other private sector institutions and domestic consultants with necessary experience and skills will be encouraged to provide necessary assistance in planning and implementation of development efforts, information dissemination, monitoring, and economic rehabilitation measures for improvement of APs livelihood including identification of other social programs and resources.

PART XI COMPLIANCE

24. Compliance
The Government of Lao PDR, on recommendation from STEA, may consider and approve granting commendations to any agency or institution that has shown outstanding performance and compliance with the provisions of the Policy and take appropriate actions against those who fail to comply with the provisions of this Policy.
Decree on Resettlement and Compensation (Final Draft)

Science, Technology and Environment Agency

17 June 2003
Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Prime Minister’s Office
No____________
Date __________

DECREE
on Resettlement and Compensation

• Pursuant to the provisions of the law of the government of the Lao Peoples Democratic Republic number 01/95 SPS dated 8th March 1995.
• Pursuant to the National Policy on Resettlement and compensation dated ..........
• Pursuant to the submission from the Science Technology and Environmental Agency number ........ dated ..........

The Prime Minister decrees as follows:

PART I
GENERAL PROVISIONS

Article 1. Objectives
1.1 This Decree defines general principles to mitigate adverse social impacts that result due to involuntary acquisition, or repossession, of land and other assets, change in land use and restriction on access to community resources affecting community livelihood and income sources caused by development projects undertaken by public or private sector in public interest. The provisions of this Decree aim to: (i) help integrate social dimensions in development projects, (ii) address measures to mitigate adverse social impacts with a particular focus on vulnerable groups, and (iii) have a comprehensive approach to address social issues in development projects. The Decree also aims to ensure that mitigation measures, including compensation relocation and economic restoration of affected people are carried out in accordance with the provisions and stipulations of the constitution framed by the party, the various relevant applicable Laws and Decrees of government and the national policy on resettlement and compensation taking into consideration special needs and features of the various ethnic groups of the Republic contributing to the economic development of the Republic.

1.2 The Decree aims to ensure that the losses incurred by affected people are redressed such that Affected Persons (APs) share project benefits, are assisted to
develop their economic, social and cultural potential in order to improve or at least restore their incomes and living standards to pre-project levels and are not worse off than they would have been without the project.

**Article 2. Definitions**

Definition of key terms is presented in Annex A to the Decree.

**Article 3. Obligations to Address Adverse Social Impacts**

3.1 The agencies responsible for design and implementation of development projects having socio-economic impacts shall, in collaboration with the concerned local governmental authorities, mass organizations and NGOs, carry out necessary surveys and field investigations, identify affected communities, prepare inventory of impacts by types and degree, determine entitlements to mitigation measures including compensation for affected assets, other assistance and allowances, relocation and economic rehabilitation measures, prepare necessary documentations and, upon approval of the same, provide adequate resources to implement suggested measures in an efficient and timely manner in accordance with the provisions of the National Resettlement and Compensation Policy.

3.2 The project proponents shall make every attempt so that displacement and other direct adverse impacts on peoples’ assets and their incomes are avoided or, if unavoidable, minimized by examining all design options available to the project.

3.3 Project proponents shall be responsible for the timely provision of adequate budget for all aspects of planning, implementing, monitoring and evaluating all resettlement/compensation activities associated with mitigating adverse impacts from each component or sub-project.

3.4 Project Proponents/Authorities shall pay particular attention to affected ethnic minority and other vulnerable groups, especially the poor, and will make every effort in order to enhance their future prospects and for poverty alleviation.

3.5 Project Proponents/Authorities shall ensure that the entire resettlement process is carried out through a meaningful involvement of project-affected communities, and their existing social and cultural institutions are supported to the greatest extent feasible.

3.6 Project Proponents/Authorities shall envision and carry out resettlement as an integral part of the development project.

**PART II**

**ELIGIBILITY**

**Article 4 Eligibility**

All people residing, cultivating or making a living within the area to be acquired for a project as of the formally recognized cut-off date would be considered as project affected persons (APs) for purposes of entitlements to compensation, resettlement and rehabilitation assistance in accordance with the provisions of this Decree. Lack
Article 5 Compensation Principles

5.1 APs shall be provided with compensation for their lost assets (land, structures, crops, trees and other fixed assets), affected in full or in part, at replacement cost.

5.2 Where significantly large or entire land holding affected by a project, the general mechanism for compensation for affected agriculture, residential or commercial land shall be through provision of "land for land" arrangements of equivalent size and productivity and at location acceptable to the AP.

5.3 If the house or structure is only partially being affected by the Project and the remaining structure is rendered unviable for continued use or in area less than the minimum house size under the prevailing standards, the AP shall be entitled to surrender the entire structure and to compensation for the entire structure at full replacement cost without depreciation or deductions for salvaged material. In case the remaining structure is viable for continued use, APs shall be entitled to assistance in cash or material for restoration of the remaining structure in addition to the compensation at replacement cost for affected portion.

5.4 APs whose land or assets are temporarily taken by the works under the project shall be fully compensated for their net loss of income, damaged assets, crops and trees, as the case may be. The project authorities shall also ensure that the land and structures are returned in its pre-project state.

5.5 Tenants, who have leased a house / structures for residential or other purposes and affected by the project, shall be provided with cash assistance equivalent to three months rental allowance and expenses to cover other losses including deposits, if any, and shall be assisted in finding alternative rental accommodation.

5.6 APs without any legal Land Use Certificate or any other acceptable proof indicating land use right to the affected land and assets they occupy shall be compensated for their lost assets at replacement cost and provided additional assistance to ensure that they are not worse-off due to the project.

5.7 All previous claims and unresolved issues related to tenure status and ownership of land and other assets affected by the sub-project or components shall be resolved prior to initiating any new land acquisition measures on the respective sub-project or component.
Article 6  Other Assistance During Relocation and Transition Period
APs displaced and severely affected due to the loss of incomes and means of livelihood shall be provided with:

- Food allowance, in cash or in kind, during the transition period;
- Suitable development assistance after displacement during the transition period until they are able to restore their incomes or livelihood standards or reach the targeted level of household incomes on a sustainable basis.
- Transport allowance or other appropriate assistance in kind to transfer to the resettlement site or their choice of relocation, as the case may be;
- Special allowance for the loss of business income during the transition period.

Article 7  Economic Rehabilitation
7.1 All APs severely affected by the project due to the loss of 20% or more of productive income generating assets (agricultural, commercial or industrial land), means of livelihood, incomes, employment or businesses, and access to community resources shall be entitled to income rehabilitation measures over and above their entitlements for compensation and other allowances, enabling them to attain, at a minimum, pre-project livelihood levels on sustainable basis.

7.2 For displaced persons whose land-based livelihoods are affected due to the project, preference shall be given to land-based resettlement strategies, or where land is not available, non-land-based options built around opportunities for employment or self-employment in addition to cash compensation for lost assets.

7.3 These rehabilitation measures shall specifically focus on vulnerable groups. Adequate assistance, in addition to compensation for affected assets and other allowances, shall be provided such that their economic and social well-being can be improved and to enable such APs achieve household income targets set above the national poverty line.

Article 8  Community Services and Resources
8.1 In cases where community facilities and infrastructure are damaged due to the project, the project proponents/developers shall ensure that these would be restored or repaired as the case may be, at no cost to the community.

8.2 Any acquisition of, or restriction on access to resources owned or managed by affected community as a common property shall be mitigated by arrangements ensuring access to improved or at least equivalent resources on a continuing basis. Attention shall also be paid to ensure that directly affected APs get due share of such benefits, corresponding to their personal losses, if any, that accrue to community on a collective basis.

Article 9  Local Culture & Practices
9.1 Local cultural and religious properties, practices and beliefs shall be respected and to the extent possible preserved.
9.2 Where local communities or individuals elect to make voluntary contribution of affected land without compensation in accordance with traditional practices, this shall be acceptable only if the impacts on their assets are marginal and do not result in displacement; incomes, employment and businesses are not affected; APs are fully aware of their entitlements in accordance with the policy; and consultation with APs is carried out in an open and transparent manner.

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Article 10 Ethnic Group Issues
Where in a project cultural minorities are affected, the mitigation measures and social and economic benefits they receive to improve their status shall be in harmony with their cultural preferences and shall be decided in consultation with affected communities.

Article 11 Resettlement Linked to Project
11.1 Resettlement transition period shall be minimized and the acquisition of assets, compensation payment in full, resettlement and rehabilitation activities for a segment/section or phase (except where long-term rehabilitation measures such as vocational training or other measures recommended) shall be completed prior to the initiation of construction work under the respective segment/section or phase thereof.

11.2 Where APs are likely to be displaced and relocated, either on a project resettlement site or at a location of their choice, prior to delivery of socio-economic rehabilitation assistance, project authorities must ensure that adequate measures are taken in advance of displacement to find such APs and for follow-up activities.

PART IV
RESETTLEMENT SITE DEVELOPMENT

Article 12 Resettlement Site Development
12.1 All relocating persons shall be provided with suitable housing or developed house-lots, shop-lots as necessary, agricultural sites of equivalent size, with productive potential and locational advantages better or at least equivalent to the old site. Replacement agricultural land, house/business plot shall be as close as possible to the land that was lost and/or acceptable to the APs.

12.2 All replacement land for agriculture, residential and businesses shall be provided with secured tenure status and without any additional cost, sales taxes, fee, and surcharge to the APs at the time of transfer. Land titles for replacement land shall be issued in the joint names of husband and wife.

12.3 Attention shall be paid to ensure that resettlement site development does not cause any adverse environmental impacts to the surrounding areas. All resettlement sites for relocation of displaced persons shall be provided with
adequate access to public facilities and services, income earning opportunities and market.

12.4 Where relocation is considered necessary, the ‘host’ community will also be entitled to compensation and other assistance similar to the project affected persons.

PART V
PUBLIC PARTICIPATION & CONSULTATION

Article 13 Public Participation and Consultation
13.1 The resettlement process shall be carried out in a participatory manner ensuring that APs and other stakeholders are fully informed, consulted and their concerns are taken into account at all stages of the project cycle, particularly during the planning and implementation phases of land acquisition, valuation and resettlement process.

13.2 Project authorities shall make concerted efforts for an effective public dissemination of information about the policy objectives and compensatory package that is part of the resettlement process, both by means of written documents and orally (via community leaders, NGOs active in the geographic area, and radio or other media that serve an illiterate population.

Article 14 Grievance Redress Mechanism
14.1 Project proponents shall establish an effective mechanism for hearing and grievance redress during the resettlement planning and implementation in a project.

14.2 The GoL PDR at the request of the project authorities will establish a Grievance Redress Committee (GRC) in each district to address complaints and grievances pertaining to land acquisition, compensation and resettlement and to preempt all disagreements being referred to courts.

14.3 Grievances related to any aspect of the project or sub-project shall be handled through consultations conducted in a transparent manner and aimed at resolving matters through consensus at the project level before complainants forward these to higher level and ultimately to the court of law. The Project Authorities will document all complaints received in writing (or written when received verbally) from the APs.

14.4 APs will be exempted from all administrative and legal fees incurred pursuant to the grievance redress procedures. In case the complaints are forwarded to the court of law, all costs for pursuing such cases in the court of law must be borne by the project.
PART VI
REPORTING AND DOCUMENTATION

Article 15 Reporting and Documentation
The project Proponents shall carry out necessary studies and field investigations including census, inventory preparation and socio-economic baseline surveys, and prepare the following reports and documents, as necessary. Where the project proponents are public institutions and government ministries such reports shall be submitted to the Regulatory Agency for review and final approval. Where a project is to be sponsored and carried out by a private developer, the developer will submit these reports to the respective ministry for review and acceptance. The ministry after being satisfied with the quality of the report, will submit the report to the Regulatory Agency for review and final approval.

1. Initial Social Assessment (ISA) / Land Acquisition Assessment
2. Social (Impact) Assessment
3. Land Acquisition and Compensation Report
4. Resettlement Plan (RP)
5. Ethnic Minority Development Plan (EMDP)

The requirements for the above reports depending upon the types, degree and scale of impacts; and their scope and contents are fully explained in the Implementation Regulations.

PART VII
MONITORING, SUPERVISION & EVALUATION

Article 16 Resettlement Monitoring and Supervision
16.1 Adequate arrangements shall be made for effective and timely supervision and internal monitoring of the implementation of the resettlement and rehabilitation measures.
16.2 In projects with major resettlement component where the impacts are severe regardless of the number of people or where more than 200 people are affected, an experienced and independent external monitoring agency would be contracted by project authorities to periodically carry out external monitoring of the implementation of resettlement activities in accordance with the RPs.

16.3 In projects with major resettlement component, project authorities shall make provisions for post-evaluation of resettlement implementation activities, six months to one year after the completion of socio-economic rehabilitation measures in the project, to check whether the economic rehabilitation objectives of the Policy and the RPs have been achieved.

16.4 If the evaluation indicates that the APs have not been able to achieve the stated objectives and income targets, project authorities shall make arrangements for provision of additional assistance to meet the stated objectives.
PART VIII
RESETTLEMENT COST AND BUDGETS

Article 17 Resettlement Cost and Budget
17.1. Each RP shall include detailed cost estimates for compensation and other resettlement entitlements and relocation of APs, if that be the case, with a breakdown by category of APs by type and degree of impacts. The cost estimates will also include the cost of monitoring and evaluation; management and administration; and rehabilitation or replacement, as the case may be, of affected public infrastructure, utilities and community facilities, and shall include, adequate provisions for contingencies.

17.2 Total estimated cost of RPs shall be included towards the cost of the project. In the case of cost overruns due to unforeseen circumstances or delays, the project authorities/proponents shall allocate additional funds as may be necessary.

17.3 In the case of a private sector project developer, the respective ministry shall devise a suitable mechanism, such as ‘imprest account’, to ensure timely availability of funds to meet all costs of resettlement activities prior to final approval for the project.

PART IX
INSTITUTIONAL ARRANGEMENTS

Article 18 Regulatory Agency (RA)
The GoL hereby appoints the Science, Technology and Environment Agency (STEA) in the Office of the Prime Minister as the Regulatory Agency (RA) with overall responsibility for coordination and regulation of resettlement/compensation activities in development projects nationwide. The STEA will ensure compliance to this Decree with the power to enforce it and to perform an oversight function.

PART X
COMPLIANCE

Article 19 Compliance
The Government of Lao PDR, on recommendation from STEA, may consider and approve granting commendations to any agency or institution that has shown outstanding performance and compliance, and take appropriate actions against those who fail to comply with the provisions of this Decree.

PART XI
Final Provisions

Article 20
The Science Technology and Environmental Agency of the office of the Prime Minister, the relevant line Ministries, central and local government agencies and all
other agencies involved are hereby directed to efficiently and effectively comply with the provisions of this Decree.

**Article 21**
The Science, Technology and Environment Agency of the Office of the Prime Minister, is hereby assigned to issue requisite Implementation Regulations and Resettlement Technical Guidelines in support of this Decree and to regulate resettlement planning and implementation activities in development projects nationwide.

**Article 22**
The provisions of this Decree are effective from the date of signature and any previously issued regulations, guidelines, etc., which are in conflict with the provisions of this Decree are hereby annulled.

Signed
Prime Minister
Annex A

Definitions

a) Compensation. Compensation means payment in cash or in kind for an asset to be acquired or affected by a project at replacement cost.

b) Cut-off Date. ‘Cut-off date’ is the date prior to which the occupation or use of the project area makes residents/users of the project area eligible to be categorized as affected persons. In many projects, the cut-off date coincides with the commencement of the census of affected persons within the project area boundaries. Persons not covered in the census are not eligible for compensation and other entitlements.

c) Entitlements. Range of measures comprising compensation, income rehabilitation assistance, income substitution, transfer assistance, and relocation which are due to affected people, depending on the type and degree of their losses, to restore their economic and social base.

d) Implementing Agency (aka Project Proponent/Project Authority/Executing Agency) is the agency, public or private, that is responsible for planning, design and implementation of a development project.

e) Land Acquisition means the process whereby a person is compelled by a public agency to alienate all or part of the land a person owns or possesses, to the ownership and possession of that agency, for a public purpose in return for compensation.

f) Project Affected Person (PAP/AP) includes any person or persons, household (sometimes referred to as project affected family), a firm, or a private or public institution who, in the context of acquisition, or repossession, of assets or change in land use, as of the cut-off date, on account of the execution of a development project, or any of its subcomponents or part, would have their:

i) Standard of living adversely affected;
ii) Right, title or interest in all or any part of a house, land (including residential, commercial, agricultural, plantations, forest and grazing land) or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily adversely affected: or
iii) Business, occupation, place of work, residence, habitat or access to forest or community resources adversely affected, with or without displacement.

AP means persons or affected household and consists of all members of a household residing under one roof and operating as a single economic unit, who are adversely affected by a project or any of its components. For resettlement purposes, affected persons will be considered as members of affected households.

g) Rehabilitation means assistance provided to APs seriously affected due to the loss of productive assets, incomes, employment or sources of living, to supplement payment of compensation for acquired assets in order to improve, or at least achieve full restoration of living standards and quality of life to pre-project level.

h) Relocation means the physical shifting of an AP from his/her pre-project place of residence, place of work or business premises.
i) **Replacement Cost** is the amount needed to replace an asset and is the value determined as compensation for:

i. Agricultural land at the pre-project or pre-displacement level, whichever is higher, and is the market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes;

ii. Land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes;

iii. Houses and other related structures based on current market prices of materials, transportation of material to construction site, cost of labor and contractor’s fee, and cost of any registration and transfer taxes. In determining replacement cost, depreciation of the assets and value of salvaged building materials are not taken into account and no deductions are made for the value of benefits to be derived from the project;

iv. Crops, trees and other perennials based on current market value; and

j) **Resettlement** refers to all measures taken by the Project Proponent to mitigate any and all adverse social impacts of a project on the APs, including compensation for lost assets and incomes and the provision of other entitlements, income restoration assistance, and relocation, as needed.

k) **Social Assessment (SA) or Social Impact Assessment (SIA).** SA or SIA is a framework for incorporating social analysis and participatory process in project design and implementation.

l) **Vulnerable group.** These are distinct groups of people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and specifically include: (i) female headed households with dependents, (ii) disabled household heads, (iii) households falling under the generally accepted indicator for poverty, (iv) landless elderly households with no means of support, (v) households without security of tenure, and (vi) ethnic minorities.
Technical Guidelines
for
Resettlement & Compensation
(Draft)

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Vientiane, Lao PDR
April 15, 2003
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Preface

These Technical Guidelines covering involuntary resettlement issues in development projects are prepared as supporting document for the Resettlement Decree and the Implementation Regulations under the ADB TA 3746-Lao. These Guidelines are issued by STEA to regulate resettlement planning and implementation in Lao PDR, as required under Article 21 of the Decree on Resettlement dated 2003, and Article 21 of the Implementation Regulations Dated 2003.
List of Acronyms & Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>AP</td>
<td>Affected Person</td>
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<td>BOOT</td>
<td>Build, Own, Operate and Transfer</td>
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<td>BP</td>
<td>Bank Procedures (World Bank)</td>
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<tr>
<td>CPC</td>
<td>Committee for Planning and Cooperation</td>
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<td>DCRC</td>
<td>District Compensation and Resettlement Committee</td>
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<td>DMS</td>
<td>Detailed Measurement Survey</td>
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<td>DOR</td>
<td>Department of Road (in MCTPC)</td>
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<td>DRWG</td>
<td>District Resettlement Working Group</td>
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<td>EdL</td>
<td>Electricite du Laos</td>
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<td>EA / EIA</td>
<td>Environment Assessment / Environment Impact Assessment</td>
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<td>EMDP</td>
<td>Ethnic Minority Development Plan</td>
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<td>ERI</td>
<td>Environmental Research Institute</td>
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<td>FARD</td>
<td>Focal Zone for Rural Development</td>
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<td>GP</td>
<td>Good Practice</td>
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<td>GOL</td>
<td>Government of Laos</td>
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<td>GRC</td>
<td>Grievance Redress Committee</td>
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<td>IA (EA)</td>
<td>Implementing (Executing) Agency</td>
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<td>IEE</td>
<td>Initial Environmental Examination</td>
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<td>IPDP</td>
<td>Indigenous Peoples Development Plan</td>
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<td>ISA</td>
<td>Initial Social Assessment</td>
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<tr>
<td>IUCN</td>
<td>International union for Conservation of Natural Resources</td>
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<tr>
<td>JBIC</td>
<td>Japan Bank for International Cooperation</td>
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<tr>
<td>JICA</td>
<td>Japanese International Cooperation Agency</td>
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<tr>
<td>Lao PDR</td>
<td>The Lao Peoples Democratic Republic</td>
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<td>LWU</td>
<td>Lao Women's Union</td>
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<tr>
<td>MA</td>
<td>Monitoring Agency</td>
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<tr>
<td>MAF</td>
<td>Ministry of Agriculture and Forestry</td>
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<td>MIH</td>
<td>Ministry of Industry and Handicrafts</td>
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<td>MOF</td>
<td>Ministry of Finance</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>MRM</td>
<td>Management Review Meeting</td>
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<td>NGO</td>
<td>Non-Government Organization</td>
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<td>NT2</td>
<td>Nam Theun II Hydroelectric Project</td>
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<tr>
<td>OD</td>
<td>Operational Directives (World Bank)</td>
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<td>OM</td>
<td>Operational Manual (of the ADB)</td>
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<td>OP</td>
<td>Operational Policies (of the World Bank)</td>
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<td>PAM</td>
<td>Project Administration Memorandum</td>
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<td>PAP</td>
<td>Project Affected Persons</td>
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<td>PI</td>
<td>Public Involvement</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>PIB</td>
<td>Public Information Booklet</td>
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<td>PMU</td>
<td>Project Management Unit</td>
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<td>PPC</td>
<td>Provincial Planning Committee</td>
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<td>PPTA</td>
<td>Project Preparatory Technical Assistance</td>
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<td>RAP</td>
<td>Resettlement Action Plan</td>
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<td>RC</td>
<td>Project’s Resettlement Committee (NT2)</td>
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<td>RMU</td>
<td>Project’s Resettlement Management Unit (NT2)</td>
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<tr>
<td>ROW</td>
<td>Right of Way</td>
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<tr>
<td>RP</td>
<td>Resettlement Plan</td>
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<tr>
<td>RRP</td>
<td>Report and Recommendations of the President</td>
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<tr>
<td>RU</td>
<td>Resettlement Unit (within the line ministry / project proponents)</td>
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<td>SA</td>
<td>Social Assessment</td>
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<tr>
<td>SIA</td>
<td>Social Impact Assessment</td>
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<tr>
<td>SAP</td>
<td>Social Action Plan</td>
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<tr>
<td>TA</td>
<td>Technical Assistance</td>
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<tr>
<td>TOR</td>
<td>Terms of Reference</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
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<tr>
<td>UNHCR</td>
<td>United Nations High Commission for Refugees</td>
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<tr>
<td>VRC</td>
<td>Village Resettlement Committee</td>
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<td>WB</td>
<td>World Bank</td>
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Definition of Key Terms

a) **Compensation.** Compensation means payment in cash or in kind for an asset to be acquired or affected by a project at replacement cost.

b) **Cut-off Date.** ‘Cut-off date’ is the date prior to which the occupation or use of the project area makes residents/users of the project area eligible to be categorized as affected persons. In many projects, the cut-off date coincides with the commencement of the census of affected persons within the project area boundaries. Persons not covered in the census are not eligible for compensation and other entitlements.

c) **Entitlement.** Range of measures comprising compensation, income rehabilitation assistance, transfer assistance, income substitution, and relocation which are due to affected people, depending on the type and degree of their losses, to restore their economic and social base.

d) **External Monitoring Agency** is the independent entity designated by the Project Proponent to monitor resettlement implementation activities in a project.

e) **Implementing Agency** (aka Project Proponent/Project Authority/Executing Agency) is the agency, public or private, that is responsible for planning, design and implementation of a development project.

f) **Land Acquisition** means the process whereby a person is compelled by a public agency to alienate all or part of the land a person owns or possesses, to the ownership and possession of that agency, for a public purpose in return for compensation.

g) **Project Affected Person (PAP/AP)** includes any person or persons, household (sometimes referred to as project affected family), a firm, or a private or public institution who, in the context of acquisition, or repossession, of assets or change in land use, as of the cut-off date, on account of the execution of a development project, or any of its subcomponents or part, would have their:

   i) Standard of living adversely affected;
   
   ii) Right, title or interest in all or any part of a house, land (including residential, commercial, agricultural, plantations, forest and grazing land) or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily adversely affected: or
   
   iii) Business, occupation, place of work, residence, habitat or access to forest or community resources adversely affected, with or without displacement.

AP means persons or affected household and consists of all members of a household residing under one roof and operating as a single economic unit, who are adversely affected by a project or any of its components. For resettlement purposes, affected persons will be considered as members of affected households.

h) **Rehabilitation** means assistance provided to APs seriously affected due to the loss of productive assets, incomes, employment or sources of living, to supplement payment of
compensation for acquired assets in order to improve, or at least achieve full restoration of living standards and quality of life to pre-project level.

i) **Relocation** means the physical shifting of an AP from his/her pre-project place of residence, place of work or business premises.

j) **Replacement Cost** is the amount needed to replace an affected asset and is the value determined as compensation for:

a. Agricultural land the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes;

b. Land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes;

c. Houses and other related structures based on current market prices of materials, transportation of material to construction site, cost of labor and contractor’s fee, and cost of any registration and transfer taxes. In determining replacement cost, depreciation of the assets and value of salvaged building materials are not taken into account and no deductions are made for the value of benefits to be derived from the project;

d. Crops, trees and other perennials based on current market value; and

e. Other assets (i.e. income, cultural, aesthetic) based on replacement cost or cost of mitigating measures.

k) **Resettlement** refers to all measures taken by the Project Proponent to mitigate any and all adverse social impacts of a project on the APs, including compensation for lost assets and incomes and the provision of other entitlements, income restoration assistance, and relocation, as needed.

l) **Social Assessment (SA) or Social Impact Assessment (SIA).** SA or SIA is a framework for incorporating social analysis and participatory process in project design and implementation.

m) **Vulnerable group.** These are distinct groups of people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and specifically include: (i) female headed households with dependents, (ii) disabled household heads, (iii) households falling under the generally accepted indicator for poverty, (iv) elderly households with no means of support and landlessness, (v) households without security of tenure, and (vi) ethnic minorities.
PART I
Resettlement in Projects
CHAPTER 1: Introduction & Objectives

1.1 Objectives

Specific objectives of these Guidelines are to provide detailed guidance to the project proponents, private and public sector, as well as all concerned in addressing social issues in development projects specifically in planning and implementation of resettlement plans, ethnic minority development plans, where necessary. The Guidelines also provide guidance for conducting social assessment in projects with indirect impacts on population within or beyond the project boundaries. The Guidelines explain in detail the processes and procedures necessary for collection of data, surveys and preparation of various documents in accordance with the provisions of the National Policy on Resettlement and Compensation, Herein after called the ‘Policy’. The guidelines cover all phases of project process from project identification to implementation and post-implementation evaluation of resettlement activities on development projects.

In Lao PDR, resettlement procedures and practices are evolving over time and are constantly refined and strengthened as more experience is gained from development projects. In this context, these Guidelines are considered as a moving document. STEA will make every effort to update these Guidelines periodically and issue updated versions as and when necessary.

1.2 Principles of Resettlement

These Guidelines are prepared and issued in accordance with the provisions of the Policy, Resettlement Decree and Implementation Regulations covering objectives and principles of resettlement, entitlements to compensation, allowances and economic rehabilitation, monitoring and evaluation, and implementation arrangements.

1.3 Structure of the Guidelines

These Guidelines are presented in five Parts. Part I contains two chapters. Chapter 1, this chapter, includes introduction and background to the Guidelines. Chapter 2 discusses project process cycle in development projects and resettlement activities that take place in the context of project process cycle. The chapter also describes outputs as required at different stages of project process.

Part II of the Guidelines contains four chapters (Chapter 3 to Chapter 6), each dealing with key outputs required to address social issues in development projects. These chapters describe scope and objectives of the key outputs, and include suggested generic outlines. These are: Initial Social Assessment, Social Assessment, Resettlement Plans, and Ethnic Minority Development Plans (EMDPs).

Part III of the Guidelines focuses on resettlement planning activities and issues arising, and contains 9 chapters (Chapter 7 to Chapter 15), dealing with the key aspects of Resettlement Plans (RPs) and activities required in preparation of RPs, including Surveys for Resettlement Planning, Entitlements, Economic Rehabilitation, Relocation and Land-for-Land Strategies, Public Participation and Consultation, Grievance Redress Mechanism, Monitoring and Evaluation, Resettlement Cost and Budget, and Resettlement Implementation.
Part IV contains focuses on resettlement implementation issues and contains two chapters (Chapter 16 and 17). Chapter 16 describes pre-implementation arrangements necessary in development projects to ensure efficient resettlement implementation and management. Chapter 17 describes resettlement activities necessary during implementation phase.

Part V contains three chapters focusing upon sector specific issues in resettlement planning and implementation. Chapter 18 covers resettlement issues in linear projects and Chapter 19 describes specific resettlement issues in regard to urban sector projects. Chapter 20 summarizes key issues relating to vulnerable groups, especially the poverty group, and recommended mitigation measures.

1.4 Acknowledgement

These Resettlement Technical Guidelines are prepared in accordance with the provisions of the Resettlement Decree and Implementation Regulations. The material presented in these Guidelines is generally culled and assembled from several sources. Major among these include the ADB’s Handbook on Involuntary Resettlement; World Bank’s Draft Source Book on Resettlement; Resettlement Guidelines prepared under ADB TA 3133-LAO, “Strengthening Social and Environment Management in Lao PDR”, July 2000; and Resettlement Guidelines prepared under the WB funded “Hydropower Development Strategy for the Laos PDR” in September 2000. Additionally, information presented in these Guidelines is also drawn heavily from several development projects in Lao PDR as well in neighboring countries. Where relevant, international best practice examples are presented in the Guidelines with an objective to bring these Guidelines to acceptable international standards, without losing focus on the country context.
CHAPTER 2: Project Process Cycle

2.1 Major Steps in Project Process

All development projects go through a well defined project process cycle beginning from inception to implementation and passing through various phases that include: project identification, pre-feasibility study, feasibility study or preliminary designs, detailed technical design, and implementation. The level of information and details on social, economic, environmental and technical aspects vary from a very general nature at the project identification stage to very detailed and specific at the feasibility and technical design stage. The resettlement planning and implementation activities run parallel to the technical and engineering activities in a project following the same project process cycle. General description of these activities is summarized below.

2.1.1 Project Identification

The first step in planning of a project involves project identification. At this stage only preliminary information on the location and scope of projects is generally available. Very rarely the project proponents are in a position to describe specific location or physical boundaries of projects at this stage. At this stage, project proponents are required to collect some basic information regarding potential social issues and impacts and make a preliminary assessment of potential environmental and social benefits and impacts of the projects. Following main activities are generally carried out during the project –identification:

- Identifying likely social impacts and issues relevant to the project
- Review & screening of existing data
- Determining the level and amount of information required for subsequent phase in the project
- Establishment of the purpose of data collection for resettlement planning, monitoring and evaluation, and preparation of terms of References (TORs)

In terms of resettlement considerations the main tasks in this phase include conducting Initial Social Assessment as a basis for preliminary assessment of land acquisition requirements and the need for social impact assessment.

2.1.2 Pre-feasibility

Pre-feasibility is a step forward from project identification and its main purpose is to refine the project objectives, conducting specific technical studies and economic analyses and preparation of preliminary designs. The pre-feasibility gives an account of the scope of the project and resources needed for its implementation. More specific information on the scope of the project and its likely impact areas are generally available during the pre-feasibility stage of projects, although information on precise project boundaries may not be available at this stage. Based on the available information, the pre-feasibility will also determine whether the potential resettlement impacts of the proposed project are likely to be significant. Identification of key stakeholders including project affected persons and groups and beneficiaries is made and a more specific information on the scale and degree of potential social impacts and socio-economic characteristics of project affected persons and groups is collected through field investigations, surveys and interviews with selected population within and adjoining the project.
areas. Since the information collection and analysis on social impacts is carried out in parallel to preparation of preliminary design of projects, the exercise also includes assessment of various design options for avoiding or minimizing adverse impact and selection of suitable design option.

### 2.1.3 Feasibility and Detailed Design

In a project pre-feasibility and feasibility studies are carried out as a continuous activity refining technical aspects in a project. The project proponents or assigned agency conduct detail studies incorporating all the components and aspects of the project. During the feasibility study stage project boundaries are finalized, although these may be further modified after the feasibility studies are completed, if necessary, during the detail technical design stage. Technical aspects in the projects are finalized and preparations for detailed technical designs are made.

In parallel to the feasibility studies and preparation of technical designs, social assessment study, where necessary, is completed. To address resettlement and other social issues during the feasibility stage of project preparation, detailed census and socioeconomic surveys are completed and inventory of affected assets prepared as an essential element of resettlement preparation. Where necessary additional information on ethnic minority groups are collected. Consultation with stakeholders is carried out throughout the resettlement preparation stage. Based on detailed surveys and field investigations, necessary documents such as the Resettlement Plans, Ethnic minority Development Plans, Social Assessment Reports are prepared and finalized.

Normally government approval for projects is obtained upon completion of the feasibility studies following which detailed engineering designs & bidding documents are prepared.

### 2.1.4 Implementation

The final stage of the project cycle is the implementation of project. However, implementation of resettlement activities is given higher priority during the implementation phase of project. Land acquisition, compensation payment and relocation activities of displaced APs are completed prior to start up of civil works in a project, except in some linear projects where civil works on some sections of the project may begin even when resettlement implementation in other sections is still ongoing. Successful implementation depends upon timely disbursement of resources, efficient institutions and human resources, adequate consultation with and participation of APs in the project process and timely delivery of entitlements plus adequate monitoring of activities.

### 2.2 Resettlement in Project Process

Resettlement planning and implementation activities are an integral part of a development project and they run parallel to project planning and implementation activities in the project process cycle. A typical example of stages of project process and resettlement activities/outputs is shown in Figure 2.1 and summarized in the following sections.
2.2.1 Initial Social Assessment

Initial Social Assessment involving identification of potential social issues and impacts and key stakeholders is undertaken during the project identification stage. The exercise also includes screening of available information for assessment of the types, scale and degree of impacts and to determine the need for various documents that may be necessary for project process. Based on the results of the screening exercise decision is taken on the level of surveys and the types of information required for various documents and necessary Terms of Reference (ToR) for subsequent studies are prepared.

2.2.2 Social Assessment

Based on the recommendations of the screening exercise and where the projects may result in indirect social impacts on population within the project or adjoining areas a detailed social assessment study may be necessary. The Social Assessment (SA) study is conducted during the pre-feasibility phase of the project preparation. Detailed investigations carried out for SA studies include identification of the types and scale of social impacts, stakeholder analysis and institutional analysis. The studies help in formulation of appropriate mitigation measures and instruments necessary to address social issues in the project. Social Assessment generally covers macro level social issues and provide a framework for more detailed investigation and for planning and implementation of mitigation measures to address specific issues.
2.2.3 Land Acquisition and Compensation Report / Resettlement Plans

Land Acquisition and Compensation Reports (LACRs) or Resettlement Plans (RPs), as the case may be, are prepared during the feasibility study stage of project preparation. These documents are prepared based on field surveys covering census of affected people and detailed inventory of affected assets within the project boundaries. Where sufficient information on physical boundaries is not finalized at FS stage, preparation of these documents is still necessary as part of project preparation and for decision on resource allocation.

Normally very few changes in design criteria are made between the FS and detailed design. However, in case of any major change in design parameters affecting project boundaries, corresponding changes in resettlement planning may be necessary and the information provided in these documents is further updated after the detailed designs are ready or during the implementation stage. In case the changes in design parameters are only minor, corresponding changes in the resettlement plans are made during implementation of resettlement activities without any need for revision of these reports.

2.2.4 Ethnic Minority Development Plans (EMDPs)

In case the ISA identifies major impacts on some ethnic minority groups, and further confirmed during the SA studies, warranting the preparation of standalone EMDP, necessary surveys and investigations would be necessary during the feasibility study phase of project preparation. EMDP preparation activities are carried out in parallel to the resettlement planning activities and EMDPs are prepared as an integral part of project preparation.

2.3 Project Process and Resettlement Outputs

Specific resettlement activities and outputs required at various stages of project process cycle are shown in Table 2.1 below.

Table 2.1: Project Process and Resettlement Outputs

<table>
<thead>
<tr>
<th>SN</th>
<th>Stages in a Typical Project</th>
<th>Resettlement Activities/Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project Identification</td>
<td>• Conduct Initial Social Assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prepare TOR for Resettlement Action Plan (RP)/EMDP/SA as necessary</td>
</tr>
<tr>
<td>2</td>
<td>Pre-feasibility</td>
<td>• Conduct field surveys (inventories, socio-economic status)</td>
</tr>
<tr>
<td>3</td>
<td>Feasibility</td>
<td>• Prepare RP/EMDP/SA as necessary</td>
</tr>
<tr>
<td>4</td>
<td>Project Approval</td>
<td>• RP and other documents are approved by the proponent’s line ministry or its authorized body</td>
</tr>
<tr>
<td>5</td>
<td>Detail Technical Design</td>
<td>• Adjustment (finalization) of RP and other documents following detailed design with specific project boundaries, if necessary</td>
</tr>
<tr>
<td>6</td>
<td>Implementation</td>
<td>• Implementation arrangements for RP/SA/EMDP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitoring and supervision</td>
</tr>
</tbody>
</table>
2.4 Project Process in the WB and ADB Funded Projects

Resettlement procedures followed in a project depend to some degree on the source of funding of the project requiring resettlement. Resettlement procedures required in projects funded by the World Bank and ADB tend to be similar since both institutions utilize similar principles and guidelines. However, projects funded by other sources may follow dramatically different practices since there are no specific guidelines governing procedures and practices. Neither are there any specific policy and procedural requirements of other bilateral agencies that compare favorably to those of the World Bank, ADB or internationally accepted practices.

For the ADB and World Bank projects, the project cycle includes various well-defined steps. In the ADB funded projects, first, there is an Initial Social Assessment during Project Preparatory Technical Assistance (PPTA) Fact Finding in which, among other things, relevant social issues and types of impacts are identified. A PPTA Feasibility Study then identifies basic resettlement principles, together with an appropriate census, socio-economic data, and entitlements for

A Comparative Analysis of Project Process Cycle and Outputs in Resettlement Related Activities in the WB and ADB Funded Projects

<table>
<thead>
<tr>
<th>World Bank Funded Projects</th>
<th>ADB Funded Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Process Stage</strong></td>
<td><strong>Output</strong></td>
</tr>
<tr>
<td><strong>Stage And time-frame</strong></td>
<td><strong>Project Process Stage and time-frame in a typical project</strong></td>
</tr>
<tr>
<td>For a typical project</td>
<td><strong>Output</strong></td>
</tr>
<tr>
<td>Project Identification</td>
<td>ISA, TA requirements identified</td>
</tr>
<tr>
<td>PPTA Fact Finding Mission</td>
<td>ISA, TA requirements identified</td>
</tr>
<tr>
<td>Draft RAP submitted for review and clearance</td>
<td>Draft RAP</td>
</tr>
<tr>
<td>Technical guidance for preparation of resettlement plans</td>
<td>Draft RRP for MRM</td>
</tr>
<tr>
<td>Finalization of RAP and review for clearance by legal and social divisions prior to loan negotiations.</td>
<td>Technical guidance for preparation of RP and its review</td>
</tr>
<tr>
<td>Loan Negotiations, Board Presentation, and Project Launch Workshop prior to implementation</td>
<td>Implementation arrangements discussed</td>
</tr>
<tr>
<td>Review of implementation arrangements, and training</td>
<td>Monitoring and progress reports. Occasional supervision by the ADB’s social sector staff.</td>
</tr>
<tr>
<td>Supervision and Monitoring reports by Resettlement Specialists. External monitoring reports. Bi-annual supervision by the Bank.</td>
<td>Monitoring and progress reports. Occasional supervision by the ADB’s social sector staff.</td>
</tr>
</tbody>
</table>
different categories of APs, as well as whether a short Land Acquisition and Compensation Report or full RP needs to be prepared. Entitlements for different categories of APs including special assistance for vulnerable groups, indigenous peoples or ethnic minorities, are determined, an entitlement matrix together with a plan built around a development strategy with compensation, relocation (resettlement) and rehabilitation assistance is prepared. A summary RP is then included in the Report and Recommendations of the President (RRP) for the Bank's Management Review Meeting and, after intermediate internal Bank steps are undertaken and loan negotiations are concluded, the project is implemented. During the implementation phase, resettlement is reviewed, where possible, using experts in resettlement, sociology and social anthropology; and monitoring of entitlement and payments is conducted. There are often periodic reviews of the resettlement with adjustments made to meet the Bank's policy, and monitoring is continued after project completion, if necessary, to determine if recovery has been accomplished.

In the World Bank funded projects, attempts are made to complete feasibility studies and technical designs prior to the loan negotiations. Comparatively more time is spent to address social issues during project preparation and to complete Resettlement Plans (RPs) and other documents such as: Ethnic Minority Development Plans / Indigenous Peoples Development Plans. These documents are prepared based on preliminary designs, or detailed designs where possible, preferably prior to the appraisal and definitely before loan negotiations. In this respect, the preparatory work for resettlement is more complete in the World Bank funded projects ensuring quality at entry. However, the requirements to follow the WB practices and procedures, especially during the project preparation phase, require comparatively higher technical input, more resources and time. During resettlement implementation, regular supervision by the WB team is carried out at least twice a year or more, depending upon the complexity of resettlement issues.
PART II
Documentation for Resettlement
CHAPTER 3: Initial Social Assessment

3.1 Objectives & Scope

The need to incorporate social dimensions in development projects is emphasized in the National Policy on Resettlement and Compensation. Information on potential social issues and likely impacts that a project may cause needs to be collected and assessed during the Initial Social Assessment (ISA) stage. ISA is an important exercise that forms the basis for more detailed studies during the project preparation stage.

The major social issues and policies that relate to the ISA include gender, resettlement, ethnic minorities, and other vulnerable groups including the poverty groups. The objective of the ISA is to assess the scope of the relevant social issues in a project and identify the need for further in-depth surveys and documentation requirements during the project preparation. Additionally, ISA should also identify whether or not relevant social issues could be integrated and covered by one consolidated document. If for example, in addition to resettlement, ethnic minority issues are identified in a project, the resettlement plan could be prepared incorporating ‘ethnic minority development plan’, attached as an appendix to the RP. On the other hand, if a project has minor resettlement issues but affects ethnic minority groups, the document may primarily be an ‘Ethnic Minority Development Plan’. Integrating social dimensions into a single document, where possible, will make efficient use of resources during project preparation, especially for surveys and data collection, and implementation.

The need and mechanism for integration of social dimensions will vary depending on the project and should be assessed by a social scientists / resettlement specialist assigned to the project on a case-to-case basis during the ISA stage.

3.2 Information Required

The information collected during the ISA through field visits to selected areas and dialogues with the key stakeholders provides the basis for assessment of the types of information and depth of analysis required and documentation necessary for project processing, professional inputs and the skills required, and for preparation of TOR for succeeding phase of project preparation. To correctly identify the relevant social issues, including the possible social risks that a project may cause, and to assess the type and level of information required, the scope of the ISA be expanded to include additional information on the degree and scale of likely impacts on vulnerable groups that would enable proposed categorization of projects and in determining the types of documents required. Annex 3.1 shows a checklist of information that needs to be collected to address resettlement issues, and a summary form that should be produced after completion of ISA. The suggested checklist covers the possible social risks that a displaced household may experience due to the project. The ‘summary information’, as suggested in Annex 3.1, would facilitate downstream decisions on the need for technical assistance and resources for further studies in project preparation. Necessary allocation of resources – including additional staff – would be necessary for a more active involvement of resettlement specialists during the project preparation and implementation.

Active involvement of a resettlement specialist or a social scientist with experience in resettlement, as member of the project team, is strongly recommended for conducting ISA, and during the project preparation and implementation stage.
3.3 Project Screening

ISA is followed by the screening of information collected to determine the type, degree and scale of impacts and to determine the level of surveys required for subsequent stages of project preparation.

Public Participation
ISA should be carried out using a public consultation and participatory process. Following completion of ISA, project screening should assess whether the project has adequately consulted with the key stakeholders, relevant NGOs and APs and if they have incorporated the feedback into the project. The feedback from consultation should include suggestions to improve the process as the project moves forward.

Level of Social Impacts
The information collected during the ISA will provide the basis for determining severity of impacts and the level and depth of subsequent field surveys, investigations and documentation (RP / EMDP / SA etc.).

‘Significant’ and ‘Insignificant’ Impacts
In general the criteria used to determine the scale of impact i.e. significant or insignificant, is based on the number of people affected in a project. Project with significant impacts require preparation of a full resettlement plan while in a project with ‘insignificant’ impacts preparation of a short resettlement plan, or the Land Acquisition and Compensation Report (LACR), is considered sufficient. However, the threshold based entirely on the number of affected persons does not take into consideration the ‘degree’ of impacts. In projects affecting a large number of people with only marginal impacts, preparation of a detailed resettlement plan cannot be fully justified. On the other hand, a project may cause severe impact to only a few households due to the entire loss of productive assets, or where assets are affected only partially but the remaining assets are rendered un-viable for continued use, requiring relocation, a simple resettlement plan may not be adequate. **Therefore, the screening criteria should take into consideration not only the scale (number of affected people, vulnerable groups, ethnic minorities, indigenous people) but also the degree (severe or marginal) of impacts.**

Impacts on cultural properties and religious structures
In case of any likely impact on cultural properties and religious structures such as temples, shrines etc., attempts should be made to reconsider design parameters to avoid any impacts on such structures. Consultation with potential APs should also focus on their views upon possible impacts on such structures.

The following set of criteria may be used as a guide to categorize the project along the same line as is done for environmental categories.

Social Category ‘S1’: Sub-projects with significant impacts on people. These are defined as follows:
a. 200 persons (40-50 households) or more\(^1\) severely affected due to:
- >20% loss of productive assets or where the loss is less than 20% but the remaining assets are rendered economically unviable;
- Displacement due to the loss of land and/or structures
- Permanent loss of incomes and employment

b. 200 or more persons (40-50 households) belonging to the following vulnerable groups severely\(^2\) affected due to the project:
- ethnic minorities\(^3\)
- squatters and those with weaker titles
- indigenous peoples
- poverty groups
- women headed households

Project categorized as ‘S1’ will require full Resettlement Plan or a standalone EMDP, as the case may be. In projects with ‘S1’ category the impacts would be considered **significant**.

Social Category ‘S2’: Where the impacts of the sub-project are marginal:

Impacts are marginal\(^4\) although the number of people affected may be more than 200 in the case of loss of productive assets or for vulnerable groups (ethnic minorities, poverty group, squatters, women headed households).

*Only a simple resettlement plan or a Land Acquisition and Compensation Report would be required for category ‘S2’ projects. Impacts in ‘S2’ category of projects would be considered Marginal or Insignificant.*

Social Category ‘S3’: Sub-project does not result in acquisition of assets, displacement, loss of incomes and employments, restricted access to community resources, community ties, and restrictions imposed on cultural practices of vulnerable and/or ethnic minority groups.

*No further studies on resettlement issues necessary for ‘S3’ category of projects.*

**Preparation and Review of TORs**

Based on the census and inventory of data, the types of reports to be prepared: social Assessment, Land Acquisition and Compensation Report, Resettlement Plans, and EMDP; will be determined and the TORs for the preparation of the reports will be prepared by the project proponent. The project authorities will clear the TORs and will authorize the budget for the simultaneous preparation of the aforementioned reports.

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1. Where in a project more than 200 people affected but severally affected people remain < 200, the sub-project may be considered as Social category ‘S2’.
2. Loss of income due to restricted access to community resources, loss of community ties, displacement, and restrictions on cultural practices.
3. If in a project an entire ethnic group and/or settlement is affected, even if the number is less than 200, the sub-project should be considered as Social category ‘S1’ and a EMDP should be prepared.
4. Most of the linear projects will fall in this category. In the case of ethnic minorities, if the affected persons are spread over a large area (over the whole length of the road for example), do not form a community and are fully integrated in mainstream population, socially and economically, the impacts will not be considered severe even if the number of affected persons exceeds 200. However, in such case a ‘Ethnic Minority Development Plan’ as part of the RP, may be necessary.
Following the screening, the project proponent will conduct necessary field studies and other background investigations as recommended by the screening. Prior to undertaking the survey the project proponent should implement a public information campaign to describe the project components, types of impacts, content and schedule for the census and inventory or other background surveys.
Annex to Chapter 3
Annex 3.1
Initial Social Assessment
Checklist of Information on Resettlement

Project: ____________________________  
Location: ______________________________

Estimated Number of Project Affected Persons (APs): _______

Types of Impacts (Social and Economic Risks):

<table>
<thead>
<tr>
<th>Social Impacts</th>
<th>Yes / No / Likely / Not applicable</th>
<th>Where possible, provide details (Expected number of households, area of land, types of structures likely to be affected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is land acquisition necessary?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Presence of squatters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loss of structures resulting in displacement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Displacement of people due to loss of productive assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• People losing means of livelihood and incomes (Temp. / Permanent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is there any risk of economic marginalization of APs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Basic facilities / services will be inaccessible (Temp. / Permanent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Impact on crops, trees and other fixed assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tenants/Lessees losing any fixed assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loss of community assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loss of existing social &amp; community ties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Potential loss of any cultural properties, historical sites or places of worship</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

5 Information for ISA should be collected in consultation and coordination with project proponent, local authorities, local NGOs and community leaders of affected community. Where possible, sufficient time should be spent for group discussions with community likely to be affected by the project.

6 The number of people likely to be affected should be based on rapid assessment.

7 It may not always be possible to get information on some of the above impacts at the preliminary social assessment stage. However, consultants should pay particular attention to these types of impacts during the project preparation stage.

8 Provide location map indicating project area boundary, total area, access, use of adjoining land etc.
## Impacts on Vulnerable Groups, if any:

<table>
<thead>
<tr>
<th>Types</th>
<th>Yes / No / Likely/ Not applicable</th>
<th>Remarks (Where possible, provide estimated number of households &amp; persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty group affected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women headed households affected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Minority Affected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other vulnerable groups(^9)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^9\) This may include disabled, child labor, bonded labor, etc.

## Institutional Constraints, if any:

<table>
<thead>
<tr>
<th>Description</th>
<th>Yes / No / Likely/ Not applicable</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will coordination between several local and provincial govt. be required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the sub-project proponent has the capacity for resettlement implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are any training and capacity building interventions required prior to RP/EMDP implementation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Brief Description of the project indicating ownership\(^10\) of land and area:

\(^10\) If the land has already been acquired in the past, indicate the year of acquisition, number of owners, any acquisition of structures and other fixed assets, rates at which the compensation was paid, if any, and other allowances and assistance provided to owners. In case the state land is ‘repossessed’ from any occupiers, provide information on the year the land is ‘repossessed’, describe the previous use of land, number of occupiers, any loss of incomes to occupiers, and any compensation or assistance to occupiers for their losses, if any.
CHAPTER 4: Social Assessment

When is SA necessary?
Initial social assessment at project identification stage determines likely social issues and the types of detailed surveys and field investigation, as well as documentation (Resettlement Plan and/or Ethnic Minorities Development Plan) required in accordance with the Resettlement Policy and the Decree. However, where an ISA during project preparation indicates complex array of social issues including indirect socio-economic impacts on population within or in the vicinity of project areas and differential impacts on ethnic minority groups, that are likely to be covered inadequately by the National Policy on Resettlement and Compensation, an independent and detailed SA is recommended during project preparation.

4.1 Definition and Scope of SA

4.1.1 Definition of SA

SA is an approach for incorporating social analyses and participatory processes into project design and implementation. Social analysis investigates demographic factors, socio-economic determinants, social organizations, and socio-political context affecting needs and values of affected populations. For these reasons, social analysis is indispensable for improving project effectiveness, including directly increasing the economic and social benefits in development programs.

Although there is not a singular accepted definition, there is general agreement about the concept of SA in principle. Social Assessment (SA) is defined as the process of analyzing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programs, plans, projects) and induced process of social change so as to create a more sustainable bio-physical human environment.

The conduct of SA can enhance quality at entry, increase economic returns, and lay the groundwork for projects that are more sustainable due to their enhanced impact on local communities. The results of the SA establish a social baseline against which changes resulting from the intervention can be measured in the future.

Functions of SA

SA has three specific functions:

(i) to assess the social issues and impacts on project affected persons (or APs) requiring targeted project investments and to identify the principal social actors (stakeholders) and interactions among them;

(ii) to help in the design of social services that may be provided in order to improve their quality of life, and achieving the project’s economic and social goals through relevant technical and programmatic activities; and

(iii) to help in the formulation of a social strategy for participatory implementation. As such, SA considers pathologies of development (i.e. impacts), goals of development (such as poverty alleviation), and processes of development (e.g. participation, capacity building). Thus, SA should also be involved in assisting
communities to determine their development priorities, and as a process for incorporating social dimensions into development projects.

SA is an umbrella or overarching framework that embodies all human impacts including aesthetic, archaeological and cultural heritage impacts, demographic and community impacts, development and economic impacts, gender assessment, health impacts, ethnic minority groups' rights, institutional and political impacts, poverty assessment, resource issues (access and ownership of resources), and other impacts on societies.

4.1.2 Scope of SA. The scope of the SA includes the following:

(a) **Regional Socioeconomic Profile/Characteristics**: This includes the following four sub-components:

(i) **Impacts on the socio-economic, cultural, and livelihood activities of affected populations**. The objective is to establish a profile of affected populations, broken down by age, gender, ethnicity, social structure, employment and labor patterns, sources of income (including production and marketing activities), local tenure and property rights arrangements, access to social services and facilities (including health, education, and agricultural extension and credit); use of community and natural resources relevant to formulation of development strategies in order to assist in determining project impacts on the social, economic, cultural, and livelihood activities of affected communities;

(ii) **Impacts on migration and future economic growth**. Identification and assessment of potential impacts of project in terms of patterns of migration and future economic growth due to the government's initiatives, possible population movements from other areas in the project provinces, increased mobility of communities, impacts of the project on isolated rural communities (in particular ethnic minorities, loggers and foresters/farmers, etc).

(iii) **Impacts on vulnerable populations**. The impacts of the project on vulnerable groups, such as ethnic minority groups, women, displaced populations, and youth and aged groups of people should be identified, analyzed, and adequately addressed. The SA should look into the potential social impacts and issues related to increased access to markets, population movement, in-migration of outsiders into the project area, air and noise pollution, and spread of infectious diseases (including HIV/AIDS). The SA findings should be strategic in order to suggest measures to minimize and mitigate adverse impacts.

(iv) **Impacts on development and reducing poverty**. Based on the assessment of potential social and economic impacts, the SA should establish criteria that will assist in the formulation of development strategies, and to the extent possible, the equitable distribution of project development benefits, especially maximizing the impacts on poverty alleviation.

(b) **Stakeholder Analysis**: An important activity in SA is stakeholder analysis. Key stakeholders must be consulted and their inputs must be taken seriously in project design and evaluation. The key elements of stakeholder analysis include:

(i) identification of key stakeholders involved in various aspects of the project
(ii) description of socio-economic organizations of local communities that may affect project outcomes;

(iii) identification of key formal and informal institutions operating at village and sub-regional levels and assessment of their role in community decision making processes as these affect project activities; and

(iv) assessment of local capacities in terms of participation in planning, implementation and supervision, and evaluation.

The methodology adopted for stakeholder analysis should include qualitative participatory interviews and focus group discussions with diverse community groups and individuals.

(c) **Institutional Analysis**: Institutional analysis covering principal organizations/ institutions, related to project components and sub-components including key formal and informal institutions at village and sub-regional levels, and should incorporate:

(i) identification of internal and external conditions, factors and processes, that impact organizational effectiveness in addressing social objectives;

(ii) assessment of the agencies responsible for dealing with social issues (especially ethnic minorities and displaced people), ensuring that they have the required understanding, commitment, staffing, financial resources, and capacities to plan and implement social programs designed to meet their needs;

(iii) reviews of operational and project related management skills within the project proponent and other executing agencies, including identification of required measures and training needs, to strengthen and to build existing capacities for addressing social issues on a sustainable basis; and

(iv) recommendations and measures to strengthen the existing institutional structure in order to enhance participation of local communities for dealing with social issues. The institutional analysis will also include an assessment of the role of community level institutions in community decision-making.

(d) **Public Participation and Consultation**: SA process should ensure that consultations are carried out with key stakeholders (including affected community members), especially informal community leaders, including religious leaders, who often play pivotal roles in mobilizing people, to obtain their inputs for identification of problems and priorities, formulation of development strategies to enhance community ownership and commitment, facilitate approval process, and ensure their involvement in implementation. The consultation process that would ensure that the objectives of the project are acceptable to the intended beneficiaries, and would include identification of:

(i) potential conflicts which may arise and propose ways to resolve these conflicts;

(ii) mechanisms for community participation in setting out priorities, implementation of rehabilitation work, and expansion of infrastructure and public facilities; and

(iii) in consultation with key stakeholders, key social issues and make recommendations on measures necessary for mitigating adverse impacts.

Given the range of social issues that need to be considered, the SA should be selective and strategic. The SA should begin with identification of people and communities, including ethnic minorities and indigenous groups, that would be affected by the project, and define operationally relevant social issues that may affect project design, delivery, and outcomes.
4.2 Characteristics of Effective SA

There are a number of different models about how SA should be implemented, and its scope. To be effective, major characteristics of SA should include the following:

4.2.1 Participation and Consultation

Public participation, information, education and consultation are key elements in the SA process. Popular support for any issue can be greatly increased if the public is informed about it adequately and comprehensively. This is particularly true for issues where lack of involvement by, or non-cooperation from, the public will lead to negative effects. Combined with citizen involvement in the planning and regulatory processes, it also can contribute to more sustainable interventions.

Using participatory approach with key stakeholders (communities, non-governmental organizations, civil society groups) can bring about broad-based community participation in needs identification; setting needs-based priorities for the delivery of basic and environmental services; in generating “ownership” of components of key initiatives and thus creating sustainability through community involvement; in minimizing, and where necessary, resolving conflict; strengthening social capital and environmental quality beyond the life of a project-based intervention.

4.2.2 Impacts on Private Assets, incomes and livelihood

One of the key concepts of SA is to protecting individual property rights, with clear statements of impacts required to ensure that individual rights are not transgressed. Where these rights are violated, SA could be seen as contributing to mitigation and compensation mechanisms. To that extent, SA tends to concentrate on negative impacts. The scope should be expanded to maximize benefits to potential affected communities or converting affected communities to beneficiaries. There is now a greater concern with maximizing social utility and development potential while ensuring that such development is generally acceptable to the community, equitable and sustainable, and that the adverse impacts are minimized, if cannot be completely avoided. The improvement of social well being of the wider community is generally recognized as an objective of development projects and plans.

4.2.3 Focus on Poverty & Other Vulnerable Groups

An important focus of SA is poverty reduction and providing assistance to other vulnerable groups that face risks of marginalization. These marginalized communities or group of people may also include those without any security of tenure. Adequate attention needs to be paid to these marginalized people.

4.2.4 Mitigation of Social Impacts

SA is a process that includes various types of impacts, some of the major ones are highlighted above. In short, it covers everything, but reports impacts in terms of what matters, or will likely matter, to people. In the development context, the role of SA goes far beyond an advance prediction, to consideration of the empowerment of local people, enhancement of the position of women, minority groups and other disadvantaged members of society, development of
capacity building, alleviation of all forms of dependency, increase in equity, and a focus on poverty reduction.

4.3 SA Methods and Tools

The methodology for the stakeholder and institutional analyses combine multiple tools and employ a variety of methods for collecting and analyzing data, including both quantitative approaches (statistical analysis of information available through secondary sources and socio-economic surveys) and qualitative methods (expert and key informant interviews, focus-group discussions, beneficiary assessments, rapid and participatory rural appraisal, gender analysis).

The selection of SA methodologies should emphasize consultation and participation of APs, especially the project implementing and executing agencies at the national, regional, and sub-regional levels. These may include local populations and NGOs who are actively participating in project activities. The discussions between the officials of the relevant ministries, local government officials and other institutions and organizations in civil society, should be participatory and broad-based leading to the identification, selection, and agreement on project components and sub-components.

4.4 Organization of the SA Process

The SA activities generally consist of: (a) preparation and desk review; (b) data collection; (c) analysis and processing; and (d) documentation.

(a) Preparation and Desk Review: Adequate preparation for SA is critical to producing good quality and strategic results. The main activities will include:

(i) Review of the ongoing and planned government development programs;
(ii) Review of the primary conditions of the community, sub-regional and other government institution profiles, including their capacity to address social issues;
(iii) Identification of issues and problems that would need further investigation during field work for data collection and formal or informal interviews and consultations with key stakeholders;
(iv) Selection of targets for sample surveys and fieldwork, especially given the large number of institutions involved and other constraints, using carefully selected sampling; selected sample of institutions must be representative of major stakeholder interests at different levels and geographical distribution; and
(v) Preparation for field work in (sample survey) selected areas would cover assessment targets, scope, methodology (or methodologies) to be adopted, organizations to be covered, schedule, design of interview schedule, manpower and other resources required, and outputs to be expected.

(b) Field Work for Data Collection: The field-work should include at least the following activities:

(i) Formulation of a set of questions centered on the social issues related to the components/sub-components of the project, including those areas earlier identified as key concerns (impacts on affected populations, stakeholders, institutions, and consultation and participation approaches).
(ii) Discussion and interviews with focus groups (e.g. different groups of road users, ethnic
minorities and other project beneficiaries) in order to solicit views on project components and sub-components, constraints, degree of satisfaction and the need for change, and perceptions on the proposed project.

(iii) Interview schedules and other survey instruments for collection of information.

(iv) Dialogues with government officials in charge of the project, including institutional management and employees, in order to determine the reasons that facilitate or deny access to public facilities, markets and other income earning opportunities and explore possible ways to address any institutional and other constraints that may exist and to assess capacities and interest in addressing social issues.

(c) Data Analysis and Dissemination of Findings: Data analysis shall focus on issues of operational importance. It is essential that the findings of the surveys and interviews are discussed with key stakeholders so that the conclusions and recommendations are appropriate and receive full commitment (especially from counterpart executing agencies).

(d) Documentation and Output of the SA Study: The expected outcome of SA would be in the form of a report, with detailed documentation of the findings of surveys. The report on SA or Social Action Plan (SAP), should contribute to redefining project objectives and formulating project design appropriate to these objectives. Specifically, the report should contain:

(i) Project background, definition of project beneficiaries with relevant social dimensions (socio-cultural and demographic characteristics, ethnic diversity, and social organizations);

(ii) Explanation of the process and function of SA study, including the strategies and methodologies adopted;

(iii) Identification of stakeholders, their needs, willingness to support the project, the convergence between project priorities and those of the beneficiary groups, priorities of project components;

(iv) Elucidation of the social issues and socio-economic impacts that need to be addressed, community groups, including indigenous minorities and other vulnerable groups (women headed households, poverty groups, HIV/Aids affected households, etc.), that are likely to be impacted by the project, and measures to minimize socio-economic inequalities, and to maximize equitable distribution of benefits; and poverty alleviation impacts of proposed investments; and

(v) Major institutions that have a stake and that are expected to play significant roles in project design and implementation, with descriptions of their structure, functional relationships with other institutions, skills and capacity for addressing social issues and measures to enhance their capacities and skills;

(vi) Recommendations for different stakeholder groups including ethnic minorities, to ensure their commitment and to build their capacity for participating in the project.

**Social Action Plan (SAP)**

The SAP will be a direct byproduct of the SIA. It will contain: a summary of the SIA, description of stakeholders and key organizations, issues identified directly impacting all Affected Persons (APs) aside from those to be resettled (temporary land acquisition, downstream water quality leading to fisheries losses, usually temporary impacts on domestic water supplies, etc), their mitigation measures, implementing agency (Project Developer), schedule, budget, and monitoring and evaluation. It should be noted that although the SAP may include some of the issues related to resettlement and ethnic minorities, the focus should be on issues that are not likely to be covered adequately in RP and/or EMDPs.
CHAPTER 5: Resettlement Plans

5.1 Objectives and Scope

Where in a project, ISA and screening identify direct impacts in terms of loss of private assets and incomes and businesses due to acquisition of assets and change in land use or restriction of access to community resources, depending upon the degree and scale of impacts, appropriate documents: Land Acquisition and Compensation Report (LACR) or full Resettlement Plan (RP), would need to be prepared. The RP or Land Acquisition & Compensation Report, as the case may be, would need to be prepared in accordance with the provisions of the National Policy on Resettlement and Compensation, Decree and the Implementation Regulations following three basic principles:

(a) Enhance or at least restore the quality of life for project affected people
(b) To the extent possible, prevent or minimize adverse social impacts
(c) Mitigate possible adverse social impacts

While adhering to the above principles, the Land Acquisition and Compensation Reports and RPs will incorporate all resettlement and rehabilitation measures necessary to ensure compensation for assets acquired at replacement cost, and restoration or enhancement of livelihood for all project Affected Persons (APs).

5.2 Types of Resettlement Plans

In principle, the Land Acquisition and Compensation Report is similar to the RP in its objectives. The only difference is that it is simpler in its scope and contents. RP is required in ‘S1’ category of projects where the impacts are significant while the Land Acquisition and Compensation Report, which is a simpler form of RP, is required for ‘S2’ category of projects where the adverse social impacts are marginal.

5.2.1 Land Acquisition and Compensation Report

In cases where the impacts of the sub-project are marginal such that less than 200 persons (about 40-50 families) are affected and/or displaced, or where the impacts are minor, although more than 200 persons may be affected (Category ‘S2’ projects), a simple ‘Land Acquisition and Compensation Report’ should be prepared. It should provide general information of the project, social impacts and the number of people affected, entitlements for compensation and other assistance for each category of APs, estimated cost, and implementation schedule.

Information Required and Report Outline
A general list of information required for preparation of Land Acquisition and Compensation Report and generic outline is provided in Annex 5.1 and 5.2 respectively.

5.2.2 Resettlement Plan (RP)

In Category ‘S1’ projects where the project affects and/or displaces more than 200 people (40-50 families), or where APs are severely affected in terms of entire loss of their productive assets or loss of incomes and businesses, a time-bound Resettlement Plan (RP) for the project should
be prepared in accordance with the provisions of the Resettlement Policy, Decree and the Implementation Regulations. Resettlement plans should be built around a development strategy, and compensation, resettlement, and rehabilitation packages should be designed to improve or at least restore the social and economic base of those severely affected. Preference should be given to resettling people dislocated from agricultural settings into similar settings.

Preparation of RP is one of the major tasks of feasibility study stage of project process cycle if not earlier. Programs and activities under RP aim to avoid risk of impoverishment among affected people and provide support to improve or at least restore their livelihood options and income earning opportunities to pre-project status.

**Information required and RP Outline**

A general list of information required for preparation of resettlement action plans and a generic outline of resettlement plans are shown in *Annex 5.3 and 5.4* respectively. More detailed discussion on the types of information required for preparation of RPs is presented in Chapter 7.

In undertaking RP preparation exercise, the project proponent or consultants are expected to follow a series of steps leading to the preparation of acceptable RPs:

- review the legal framework in the Lao PDR;
- review the detailed project design and the results and recommendations of ISA;
- in conjunction with project proponent, facilitate discussions with the local government officials in affected provinces/districts in order to agree on the RP approach; the local authorities will have to take an active role in the RP planning and implementation processes;
- undertake a census\(^{11}\) of all APs (with 100% coverage), inventory of affected assets, and a sample socio-economic survey\(^{12}\) of the project area and the proposed resettlement site(s), where necessary to resettle displaced persons, to establish a baseline of APs and the host population; for smaller sub-projects and depending on the availability of resources, the census, inventory of affected assets, and socio-economic survey may be combined into one field operation;
- hold consultations with stakeholders (including APs) to obtain their inputs for RP design and to enhance ownership, facilitate approval process, and ensure ease of implementation;
- analyze data to identify different categories of APs depending upon the degree and scale of impacts of the project components;
- hold consultations with the key stakeholders to design compensation package (including compensation for all types of affected assets, rehabilitation measures and other assistance) for each category of APs;

---

11 The census should provide details of land and assets owned or held, and the precise amounts of assets to be acquired on a temporary or permanent basis from every affected household for the project, as well as data on the social and economic status and occupations of all APs.

12 The socio-economic survey should provide data on the existing social structure, tenurial arrangements and resource use, access to social services and infrastructure facilities by different social groups in the project area, and for the host population at the proposed resettlement site(s), clearly identifying all special interest groups, particularly those who are poor and vulnerable (e.g. tenants, landless laborers, women), and describing their special characteristics in relation to the project; the survey should also describe the expected impacts of the project - access to benefits, infrastructure and social services, and adverse impacts - on different social groups.
• formulate procedures for assessment of compensation for each type of affected assets;
• formulate time bound schedule for the implementation of RP;
• formulate procedures for grievance redress;
• determine monitoring procedures during and post-project period and identify a competent external monitoring agency for external monitoring and prepare a TOR for the same;
• prepare detailed cost estimates for implementation of RPs including the costs for administrative overheads;

Where a project is likely to adversely affect households belonging to poverty groups, the resettlement plans should specify measures13, additional to the compensation entitlements, aimed to improve status of the poor to bring them up to an acceptable level above the poverty line.

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13 The measures should focus to avoid potential social risks and should be organized around the themes that include: a) reducing barriers to access to markets, trading and employment opportunities; b) improving access to and delivery of essential social services to the poor; c) empowerment through good governance, sound participatory processes and effective organization of the poor; and d) reducing vulnerability to poverty through building social assets i.e. asset building strategies such as land-for-land, replacement housing, and increased security of tenure. Non-land based strategies may include placing greater emphasis on the customary rights and cultural practices of indigenous people and ethnic minorities; provision of improved or better access to micro-finance and affordable micro-credit facilities; providing appropriate training in new jobs; and improving access to markets and employment opportunities. Interventions should be designed with greater participation by, and consultation with, the poor to ensure that their needs, priorities and preferences are fully addressed, and in a transparent manner with full involvement of civil society and stakeholders. Selection of final strategy (ies) should be based on informed choices of affected people.
Annex to Chapter 5
## Annex 5.1: General List of Information Required for Land acquisition and Compensation Report

<table>
<thead>
<tr>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>name and address of AP</td>
<td>Field Survey</td>
</tr>
<tr>
<td>household size</td>
<td>DO</td>
</tr>
<tr>
<td>total and affected area of land by type and use</td>
<td>DO</td>
</tr>
<tr>
<td>number, total, and affected area of houses and other structures</td>
<td>DO</td>
</tr>
<tr>
<td>tenure status of affected land and structures</td>
<td>DO</td>
</tr>
<tr>
<td>type of structure affected (permanent, semi-permanent and temporary)</td>
<td>DO</td>
</tr>
<tr>
<td>Loss of trees by type, and crops</td>
<td>DO</td>
</tr>
<tr>
<td>identify temporary and permanent loss</td>
<td>DO</td>
</tr>
<tr>
<td>identify the land belonging to government and other institutions</td>
<td>DO</td>
</tr>
<tr>
<td>number of businesses affected, by type</td>
<td>DO</td>
</tr>
<tr>
<td>main occupation and monthly household income from primary sources</td>
<td>DO</td>
</tr>
<tr>
<td>list of other fixed and moveable assets affected</td>
<td>DO</td>
</tr>
<tr>
<td>length of stay in the area and building</td>
<td>DO</td>
</tr>
<tr>
<td>amount of rent paid by tenants / lessee</td>
<td>DO</td>
</tr>
<tr>
<td>viability of remaining land and/or building for continued use</td>
<td>DO</td>
</tr>
<tr>
<td>quantity, type and quality of community resources affected</td>
<td>DO</td>
</tr>
<tr>
<td>Prevailing land prices in the vicinity for land of similar productive quality and tenure status</td>
<td>Market survey</td>
</tr>
<tr>
<td>Updated land prices from provincial authorities</td>
<td>Market surveys</td>
</tr>
<tr>
<td>Current prices for structures from provincial authorities</td>
<td>Market survey</td>
</tr>
<tr>
<td>Comparative market prices for structures of same category and class</td>
<td>Market survey</td>
</tr>
</tbody>
</table>
Annex 5.2: Generic Outline for Land Acquisition and Compensation Report

1. INTRODUCTION
   Brief description of the project (provide key map of the project area)
   Summary description of the types of impacts
   Describe steps taken, if any, to minimize adverse impacts in the sub-project

2. DESCRIPTION OF PROJECT AFFECTED PERSONS
   Description of Project Affected Families including their spatial distribution
   Socio-economic characteristics of project affected families:
   ▪ Total number of families and persons affected by the sub-project
   ▪ Employment types and major sources of income,
   ▪ Tenure status (land and house/structures)
   ▪ Total and affected land and buildings: areas, house types and condition
   ▪ Describe socioeconomic aspects of vulnerable groups affected, if any

   Categories and numbers of affected households by type and degree of impacts.
   (provide above information disaggregated by ethnic minority, if any)

3. COMPENSATION ENTITLEMENTS
   Indicate compensation entitlements for each category of APs
   Describe other assistance (transport allowance, rehab. assistance etc.) provided to
   severely affected families
   (Indicate compensation entitlements in a Compensation Matrix)

4. COST ESTIMATES AND BUDGET
   Aggregate costs for each type of asset loss and implementation management

5. IMPLEMENTATION SCHEDULE
   Implementation schedule for land acquisition and compensation for each component of
   the project
   Description of implementation activities and sequence.
Annex 5.3: General List of Information Required for Resettlement Plans

- name and address of AP (photo documentation preferred)
- household size
- total and affected area of land by type and use
- number, total and affected area of houses and other structures
- tenure status of affected land and structures
- types of documents possessed to support land tenure
- loss of trees by types, and crops
- type of structure affected (permanent, semi-permanent and temporary) together with description of building material used
- tenure status of employees, tenants and itinerant workers, as the case may be
- loss of incomes or employment
- identify temporary and permanent loss
- estimated number of households marginally affected
- estimated number of households severely affected and need to be relocated
- AP’s preference for relocation
- main occupation and monthly household income from primary sources
- length of stay in the area and building
- amount of rent paid, or deposits made, by tenants / lessee
- viability of remaining land and/or building for continued use
- suitability of remaining land for reorganization
- number of businesses affected, if any, by type
- prevailing land prices in the vicinity for land of similar productive quality and tenure status
- current prices for structures as determined by government department or provincial governments
- comparative market prices for structures of same category and class
- documentary proof of land and building ownership and tax payment
- socio-economic characteristics of ‘host’ population
- size and locational characteristics of potential relocation sites
- information on ongoing income rehabilitation initiatives in the vicinity of project areas
Annex 5.4: Generic Outline of Resettlement Plan (RP)

1. INTRODUCTION
   • Description of project components
   • Summary description of adverse impacts and asset acquisition
   • Identification of principal stakeholders including social groups vulnerable to impoverishment or debilitation
   • Indicate measures taken to minimize adverse impacts

2. CENSUS AND SOCIOECONOMIC SURVEY RESULTS
   • Review of socio-economic characteristics of project Affected Persons (APs), including: Spatial distribution, household size and composition; age-sex structure; income levels, including primary occupation, supplementary sources of income, and subsistence activities; tenure status (land and structures); characteristics of collective land holdings, including area and qualitative characteristics; characteristics of structures, including construction types.
     (Information should be provided disaggregated by ethnic groups, if any)
   • Categories and numbers of APs by type and degree of impacts such as:
     a) Severely affected households due to loss of productive assets and required to relocate
     b) Severely affected households due to loss of residence, business premises
     c) Partially-affected households likely to be marginalized due to the loss of land, house, or business premises but not required to relocate
     d) Households affected by minor impacts, receiving only easement compensation or “moving back” assistance
     e) Tenants, laborers, employees, or other non-landed persons adversely affected by the project

3. COMPENSATION ENTITLEMENT CRITERIA
   • Description of objectives of compensation policy
   • Eligibility criteria for APs, including ‘cut-off date’ if necessary
   • Description of compensation entitlements and other forms of assistance for each category of APs
   • Describe specific measures to mitigate adverse impacts on vulnerable groups (if relevant)
   • Compensation matrix consistent with above

4. RELOCATION PLAN (If necessary)
   • Review of suitability of alternative relocation sites
   • Site selection criteria
   • Preliminary relocation options of APs
   • Review of consultation procedures with APs in selection of resettlement alternatives during implementation
   • Socio-economic data regarding host population, if applicable
5. INCOME RESTORATION MEASURES (As necessary)
   • Description of eligibility criteria for income restoration measures
   • Feasibility analysis of any alternative income restoration programs including the use of collective land compensation, Training needs of APs in the context of employment opportunities and market demand, access to credit and micro-enterprise support for APs interested in small business development
   • Institutional arrangements to finance and manage income restoration programs

6. PUBLIC PARTICIPATION, CONSULTATION AND GRIEVANCE REDRESS MECHANISM
   • Public consultation exercises conducted during the RP preparation (provide details)
   • Description of opportunities for APs to participate in resettlement planning and implementation
   • Procedures adopted for filing complaints, review, and decision-making

7. ORGANIZATIONAL SET-UP
   • Administrative set-up and plans for training and capacity building as needed

8. MONITORING AND SUPERVISION
   • Listing of performance monitoring indicators
   • Institutional responsibilities and procedures for internal project monitoring
   • Discussion of role, if any, of Community Based Organization (CBO) and NGOs in monitoring
   • Content and frequency of monitoring reports

9. COST ESTIMATES AND BUDGET
   • Estimate of aggregate costs for each type of asset loss
   • Estimated costs for income restoration programs, administration, supervision and monitoring
   • Statement of financial responsibility for all resettlement-related costs
   • Physical and Price Contingencies

10. IMPLEMENTATION ARRANGEMENTS
    • Timetable for implementation of all resettlement activities, tied to overall sub-project timetable
    • Procedures for implementation or delivery of key elements, as relevant:
      a) Review of land-for-land arrangements, including timetable and funding for development of relocation sites and necessary services or other inputs
      b) Review of procedures for payment of compensation
      c) Procedures for assessing adequacy of compensation
      d) Operational procedures for job placement, micro finance, or other income-restoration programs
      e) Legal covenants for inclusion in civil contracts
CHAPTER 6: Ethnic Minority Development Plans

6.1 Objectives and Scope

Where the project results in adverse impacts on ethnic minority groups and/or settlements, ‘S1’ category of projects, an Ethnic Minority Development Plans (EMDP) will be developed as a standalone document. However, where some ethnic minority groups are integrated socially and economically with the mainstream population, and such is confirmed by the ISA and subsequent SA studies, a separate EMDP will not be necessary. Instead the description of impacts, basic socio-economic characteristics of ethnic minorities, and suggested mitigation measures should be included as an attachment to the RP.

6.2 Surveys and Information Required

In projects with likely impacts on ethnic minority groups, a screening exercise should be conducted as part of the ISA. A sample of the screening for ethnic minority groups in development projects is shown in Annex 6.1.

Social Assessment should, among others, focus on ethnic minority issues in projects with likely adverse impacts on ethnic minorities. A framework for Social Assessment of Ethnic Minorities is shown in Annex 6.2.

While the SA will address macro-level issues and broad strategies to mitigate impacts, specific and focused studies would be required for preparation of EMDP.

Information Required

The information required for preparation of EMDP will include the following:

- The basic census, socio-economic data and inventory of affected assets;
- household ownership of economic and productive assets
- annual income from primary and secondary employment opportunities
- economic information of community (e.g., brief information on economic and natural resources, production and livelihood systems, tenure systems)
- social information of community (e.g., brief description of kinship, value system; types of social organizations of formal/informal groups, farming groups, etc., especially those that can help group in adjusting to potential impacts from improved road)
- potential impact of sub-project on basic social services (e.g., water supply, health clinics, and schools)
- potential impact of sub-project on the social and economic livelihood

Information should be gathered from group meetings, one with a general assembly of affected ethnic minority groups in the area and one with indigenous women, especially those who live along the zone of influence of the project area. Discussions should focus on the project objectives, potential positive and negative impacts, and recommendations for project design. If the SA indicates that the potential impact of the proposed sub-project will be significantly adverse and that the ethnic minority community rejects the project, the project authorities should consider redesigning or reformulating the project.
6.3 Formulation of Development Alternatives

The proposed mitigation measures should ensure that social and economic benefits they receive are in harmony with their cultural preferences. The focus of the EMDP should be on resource-based, non-cash measures that are developed through an extensive public participation and consultation to mitigate adverse impacts on such communities. The assistance should also include institutional strengthening and capacity building of tribal elders, community groups working on resettlement activities.

Public Participation and Consultation
The community participation and consultation framework and grievance redress mechanism should be developed in culturally appropriate ways familiar to the ethnic minorities. They should be developed with the ethnic minority groups and their tribal leaders in close collaboration with local officials. Wherever possible, staff with indigenous background and experience should be hired as part of the social impact assessment team as well as the monitoring team. A sample schedule for public consultation with ethnic minorities, and sequence of activities is shown in Annex 6.4.

6.4 Documentation / EMDP

A Generic outline and format for preparation of Social Action Plan focusing upon ethnic minority issues is shown in Annex 6.3.
Annex to Chapter 6
Annex 6.1: Preliminary Screening of Ethnic Minorities

<table>
<thead>
<tr>
<th>Province: ________</th>
<th>District: _________</th>
<th>Commune: ________</th>
<th>Subproject: __________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of Villages, Communes along the Influenced Zone</th>
<th>Name of Ethnic Groups along the Influence Zone</th>
<th>No. of Ethnic Minority Households along the Influenced Zone</th>
<th>No. of Total Ethnic Minority Persons along the Influenced Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Women   Men</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</table>

When to do screening: At the time of the first consultation with a commune.
What information to collect: The screening will collect demographic data of ethnic minorities who live along the zone of influence.
How to collect the information: It can be obtained from ethnic leaders, village leaders and commune authorities.
Who will do the screening: Consultants or Trained District staff
Annex 6.2: Social Assessment For Ethnic Minorities

When to conduct SIA: If the screening results show that there are ethnic minority households along the zone of influence of the subproject, a social impact assessment will be undertaken.

What information to collect: The SIA will gather relevant information on the following: demographic data, social, cultural and economic situation; and social, cultural and economic impact-positive and negative-of the proposed sub-project.

How to collect the information: Information will be gathered separate group meetings with the following ethnic minority groups: 1) EM leaders; 2) EM men; and 3) EM women, especially those who live in the zone of influence.

Who will conduct the SIA: Consultants or Trained District staff.

Time required: The SIA data collection for each commune will take about two to three days. It will take another two or three days to analyze the data and prepare the final report.

Province: _________; District: __________; Commune:_________; Subproject:__________

A. Demographic Social Cultural and Economic Situation

1. Percentage of ethnic minority households below the poverty line

2. Number of ethnic minority girls attending elementary school

3. Number of ethnic minority boys attending elementary school

4. Number of ethnic minority girls attending secondary school

5. Number of ethnic minority boys attending secondary school

6. Average number of visits to the hospital by each ethnic minority household per year

7. Availability of water supply facility (wells, piped water, etc) in the community
   Yes ______; No_____

8. Availability of electricity in the community
   Yes ______; No_____

9. No. of households in community with connection to electricity
   ________

10. Economic information of ethnic minority community

   a) Types of natural resources in the area:

<table>
<thead>
<tr>
<th>Natural Resource</th>
<th>Check</th>
<th>Natural Resource</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Forest</td>
<td></td>
<td>iv.</td>
<td></td>
</tr>
<tr>
<td>ii. Lake, river</td>
<td></td>
<td>v.</td>
<td></td>
</tr>
<tr>
<td>iii. Mineral</td>
<td></td>
<td>vi.</td>
<td></td>
</tr>
</tbody>
</table>
b) **Economic and livelihood systems:**

<table>
<thead>
<tr>
<th>Main Activity</th>
<th>% of EM H/Holds</th>
<th>Secondary Activity</th>
<th>% of EM</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. sedentary agriculture</td>
<td></td>
<td>i. sedentary agriculture</td>
<td></td>
</tr>
<tr>
<td>ii. shifting agriculture</td>
<td></td>
<td>ii. shifting agriculture</td>
<td></td>
</tr>
<tr>
<td>iii. landless farm worker</td>
<td></td>
<td>iii. landless farm worker</td>
<td></td>
</tr>
<tr>
<td>vi. off farm work</td>
<td></td>
<td>vi. off farm work</td>
<td></td>
</tr>
<tr>
<td>v. govt. employees</td>
<td></td>
<td>v. govt. employees</td>
<td></td>
</tr>
<tr>
<td>vi.</td>
<td></td>
<td>vi.</td>
<td></td>
</tr>
</tbody>
</table>

11. **Tenure systems** of main ethnic groups: briefly describe land ownership and tenure systems (e.g., communal ownership, private ownership, gender differences in ownership, etc.).

_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

12. Social information of ethnic minority community

Key social and cultural systems of main ethnic groups: e.g., group travels frequently to visit relatives in other communes; men travel alone but women do not travel alone; men stay at home while women work in the fields; boys go to school but girls are not allowed; group members intermarry with other members of other groups, etc.

_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

Social groupings of main ethnic groups: briefly ethnic types of groupings: e.g., formal and informal leaders (such as spiritual leaders, traditional healers), formal and informal groups such as farmers, women, youth, elderly, etc.; who are the decision makers in the household? In the community?

_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

B. **Social, Cultural and Economic Impact**

Getting views from men and women on:

1. Potential positive impacts:

a. Potential employment during subproject construction, or increased access to employment once the subproject constructed

   Yes___; No_____

   Comments: ___________________________________________________________
_________________________________________________________________________

b. Increased access to electricity:

   Yes___; No_____

   Comments: ___________________________________________________________
_________________________________________________________________________

c. Other positive impacts in social and economic development:

   __________________________________________________________
________________________________________________________________________

Page 38 of 186
2. Potential negative impacts:

a. Electric security: Yes___; No____
   Comments: ____________________________________________________________________
   ____________________________________________________________________________

b. Physical and social problems related to subproject: Yes___; No____
   Comments: ____________________________________________________________________
   ____________________________________________________________________________

c. Land acquisition for subproject construction: Yes___; No____
   Comments: ____________________________________________________________________
   ____________________________________________________________________________

d. Threats to cultural properties and resources, such as archaeological sites and historical monuments, sacred and ceremonial sites, graveyards, medicinal plants, etc., in zone of influence: Yes___; No____
   Comments: ____________________________________________________________________
   ____________________________________________________________________________

e. Other negative influences:
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________

C. Suggestions and Recommendations for Sub-Project

From Men:
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________

From Women:
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________

D. Other Comments
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
   ______________________________________________________________________________
Annex 6.3: Proposed Action Plan

When to prepare action plan: Immediately after the SA, if the ethnic minority supports for the sub-project.
How to prepare an action plan: The plan to be prepared based on the results of consultation and participation of EM groups.
What is in an action plan: It will consist of (1) mitigation activities; (2) technical identification of development, (3) institutional arrangement for implementation; (4) implementation schedule; (5) monitoring and evaluation; and (6) cost and financing plan.
Who will prepare the action plan: Consultant in coordination with the commune leaders, ethnic minority leaders in consultation with the EM community and the trained local staff from the district.
Who will implement the action plan: The project proponents with assistance from communes and EM leaders.

1. Mitigation Measures

Potential of negative impacts: Identification of potentially negative impacts through consultation with EM and local authorities.

Mitigation measures

The project proponents in preparing the design, construction schedule should use information from the SA and meetings with the ethnic minority communities and construction measures for the subprojects and the estimated cost of required work. These will include:

a. Recommendations for changing line alignments, locations, construction measures and construction schedule for subprojects to accommodate needs and preferences of ethnic minorities:

b. Identify areas for particular cultural, spiritual or ecological sensitivity which should be considered in design and construction activities:

c. Develop a program for communication, information and education by the commune for the ethnic minority community in the zone of influence on electric safety, potential health and social problems:

d. Land acquisition and compensation: Where there is land acquisition in ethnic minorities, the project will ensure that their rights will not be violated and that they will be compensated for the use of any part of their land in a manner that is culturally acceptable to them. The compensation will follow the provisions of the National Policy on Resettlement and Compensation, Decree and the Implementation Regulations. Ethnic minority leaders will assist with consultation of affected households and with compensation activities.
2.  Technical Identification of Development Assistance

The province through its regular development program will provide assistance to the ethnic minorities living in the sub-project areas, e.g., priority for those living near the influenced areas in getting employment in subproject construction and maintenance, priority for accessing to credits from banks in medium and long terms, and assistance for agricultural development such as land reclamation.

Training: The Project should provide trainings for EM in the influenced areas on training on appropriate development aspects including agricultural extension. It will also include ethnic minority leaders in training sessions on SA, resettlement, and participatory monitoring for EMDP implementation.

Gender Assistance: Special consultation and training for women, especially female-headed households (such as, credit, agricultural extension, fertilizer use, etc.)

List proposed development assistance and schedule:

<table>
<thead>
<tr>
<th>Proposed Assistance</th>
<th>Responsible Group</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.  Institutional arrangement.

Describe about all required activities and responsible institutions

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Responsible institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.  Implementation schedule

Figure out the schedule for each action

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Monitoring and evaluation

Describe the indicators to be monitored, institution(s) responsible for monitoring, requirement for monitoring reports.

Indicators:

1. _____________________________________________
2. _____________________________________________
3. _____________________________________________
4. _____________________________________________
5. _____________________________________________

<table>
<thead>
<tr>
<th>Activity</th>
<th>Monitoring Schedule</th>
<th>Visited by</th>
<th>If completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Conduct SA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Discuss findings of SA with community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Preparation of Action Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Discussion with local authorities, engineer of mitigation measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Visit one month prior to construction work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Visit one month after construction work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Visit six months after construction work</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Cost and financing plan. Estimate cost for EMDP and financing resources.

<table>
<thead>
<tr>
<th>Proposed assistance</th>
<th>Unit cost (USD)</th>
<th>Quantity</th>
<th>Total cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Implementation cost
Contingency
Total cost (USD)
**Annex 6.4: Sample Schedule for Ethnic Minority Consultation**

Note: Ethnic minority leaders and two ethnic minority representative (one man and one woman) should form part of the EMDP planning and implementation group for each local unit.

<table>
<thead>
<tr>
<th>TASK</th>
<th>RESPONSIBLE PERSON</th>
<th>MATERIAL &amp; FORMS</th>
<th>WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inform ethnic minority commune leaders and local authorities about the sub-project</td>
<td>Proj. Authorities /district trained Staff</td>
<td>Project brochure</td>
</tr>
<tr>
<td>2</td>
<td>Conduct screening to determine types and numbers of ethnic minority households living in area of zone of influence of subproject.</td>
<td>Consultants, trained District Staff</td>
<td>Provide Screening/EM Inventory Form</td>
</tr>
<tr>
<td>3</td>
<td>Request EM commune leaders, local authorities to help with completing Screening/EM Inventory</td>
<td>Proj. Authorities / District officials</td>
<td>Official letter</td>
</tr>
<tr>
<td>4</td>
<td>Undertake social impact assessment ethnic minority households in zone of influence/area of subproject. Conduct focus group discussions with three separate groups of ethnic minorities as part of SA: leaders; men; and women</td>
<td>Trained District Staff (under guidance from Proj. Authorities)</td>
<td>SA Form</td>
</tr>
<tr>
<td>5</td>
<td>Analyze and write up findings of SA</td>
<td>Ditto</td>
<td>SA Form</td>
</tr>
<tr>
<td>6</td>
<td>Meet EM leaders and members and discuss findings of SA</td>
<td>District Staff</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Prepare Action Plan with local authorities, ethnic minority representatives and their leaders</td>
<td>Proj. Authorities</td>
<td>Action Plan Form</td>
</tr>
<tr>
<td>8</td>
<td>Meet with designed project staff to discuss feedback from the commune and use information to design and mitigation measures</td>
<td>local trained staff</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Send all Inventories, SA, Action Plans to Proj. Authorities</td>
<td>Local Trained Staff</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Summarize information and submit to Proj. Authorities and STEA Important – the reports should be submitted with submission of its proposed subproject Program.</td>
<td>Proj. Authorities</td>
<td></td>
</tr>
</tbody>
</table>
PART III
Resettlement Planning
CHAPTER 7: Surveys for Resettlement Planning

7.1 Surveys for Resettlement

Gathering and using information effectively is essential to both resettlement planning and implementation. Plans are ineffective if they are not based upon adequate and accurate information about the people to be affected, the losses incurred due to the project, and vulnerabilities they are likely to face as a result of imposed change.

This section describes categories of survey information required to provide the basis for resettlement planning, and the instruments used for information gathering. In terms of the project cycle, this information is essential for determining the applicability of the Resettlement Policy, identifying affected people and the vulnerabilities they face, establishing baselines by which to measure income restoration and other objectives, and designing alternatives that are technically feasible and socially acceptable.

A Resettlement Plan (RP) should be prepared in accordance with the provisions of resettlement policy. For this, various types of surveys need to be conducted in order to get a clear idea of the extent of loss due to land acquisition, the socio-economic status of the project affected persons and to establish a cut-off date for entitlement for the land and assets loss. In particular, three types of surveys/inventories are essential for preparation of resettlement plans. These are:

- Census of Affected Households and Establishment of Cut-Off-Date
- Inventory of Affected Land and other Assets
- Socio-economic Baseline Data

Each of these surveys is discussed in the following sections.

7.2 Census and Establishment of Cut-Off-Date

Census includes complete (100%) and accurate count of people and households within the defined project boundaries. For resettlement, the main purpose of census is to enumerate entire population likely to be affected by acquisition of assets and other changes brought about by the project. The census enumeration should also include persons affected due to loss of their income or business or whose livelihood is entirely based on the land to be acquired for the project purpose irrespective of title holding status of the household.

Census exercise requires house-to-house collection of information on potentially affected households. The types of information that needs to be collected is shown in Annex 7.1.

Census to Establish Cut-off-date and Eligibility for Entitlements

The importance of census is not limited to collecting detail information on affected people only. Its practical significance is also for establishing the cut-off date for entitlement eligibility. It is important for the project proponent and for the APs to establish a date for eligibility of entitlement for the losses. The date of commencement of census of project affected persons within the project area boundaries should be taken as cut-off date. Only those APs found to be residing in, doing business, or cultivating land, or having rights over resources within the project area as of the date of the census survey will be eligible for compensation for lost assets and other assistance from the project. Using cut-off-date to establish eligibility for
entitlements should also be considered carefully in conjunction with the provisions of the Land Law in Lao PDR.

**Tagging & Photo Documentation**

The APs should be clearly informed of the cut-off date and its significance for both the implementers and the affected ones. All surveyed structures should be tagged and photo documentation of affected asset together with the owner as of the cut-off date is recommended in order to avoid any confusions and misunderstanding over the eligibility.

It should be noted however, that anyone occupying any property within the project area through legal transactions after the cut-off-date has been established will automatically be entitled to all the entitlement benefits in the project. Further, the establishment of cut-off-date cannot prevent any household making improvement or additions to their affected houses without losing their entitlements to such additions and alterations, especially if the time lag between the cut-off-date and actual resettlement implementation is unreasonably long.

**Establishment of cut-off-date serves dual purpose, protecting rights of project affected persons, and protects project authorities from fraudulent claims made by people who move into the area in order to claim benefits from the project.**

**7.3 Inventory of Affected Assets**

The purpose of preparing an inventory is three-fold: First, it itemizes the loss of each category of land, structures and other assets thereby enumerating the extent of loss. Second, it spells out the owner of each item of loss and thus the eligibility of entitlements. Third, it helps to allocate budget for compensation and resettlement of the project.

To be effective, the inventory of affected assets and other losses must be accurate and as detailed as possible. The accuracy of inventory is a function of precise demarcation of project boundaries. In some cases precise project boundaries are not established until the detailed technical designs are complete. In such cases the inventory is prepared during the feasibility stage of project preparation based on the available information on project boundaries and these information is updated prior to implementation. The updating exercise can be costly and time consuming if significant changes are made in the project designs after the completion of feasibility studies. It is therefore, important that project boundaries are established as accurately and as early in the project preparation stage as possible. Inventory should include all the information about affected assets and should include 100% coverage of affected land parcels and other assets. The detailed list of information required for inventory is shown in Annex 7.2.

**7.4 Socio-economic Baseline Survey**

Census and inventory data, supplemented as necessary by information obtained through the land acquisition assessment and socioeconomic surveys, are used to establish baseline information on household income, livelihood patterns, standard of living and productive capacity. This baseline is the reference point by which the extent of income restoration and the effectiveness of other rehabilitation efforts can be measured.

Socio-economic baseline information is critical for design of feasible resettlement programs and entitlements, and restoration of incomes and living standards. This includes:
a) information on the full resource base of the affected population, including income derived from the informal sector and from common property;  
b) information on public infrastructure and community services that will be affected;  
c) productive activities, sources of income, and property rights;  
d) identifying local organizations and social institutions that can be enlisted in designing and implementing resettlement provisions; and  
e) determining perceptions and preferences regarding potential resettlement options.

Detailed list of information required for socio-economic baseline survey is shown in Annex 7.3.

7.5 Critical Issues in Field Surveys

Depending upon the specific context and processing timetables of the project, the census, inventory and socio-economic baseline studies can be combined or undertaken in separate exercises, or the sequence in which they are undertaken may differ. In countries with poor residential or property registration, for example, it makes sense to conduct a census in the very early stages to establish eligibility and discourage land invasions or fraudulent claims for compensation. The census and inventory of assets frequently are combined into one survey establishing basic data on the general magnitude of impact since both require visit to every household. In settings where it is difficult to establish ownership or length of residency, however, the census should be done as soon as possible to establish a cut-off date for eligibility for entitlements. In such situations, it may be advisable to supplement the census immediately with a partial inventory, sufficient to establish the number and general size of structures. Precise attributes of structures and a general inventory of remaining fixed assets acquired or affected can be determined later.

Time and Resources Required for Surveys

The time and resources required for gathering information also will vary significantly depending upon the project and the complexity of its impacts. In general terms, however, for a major project gathering information is likely to require 9-12 months or more from the first identification that land acquisition is necessary until RP preparation.

Is there any need for revision of data in case of delays?

Like the census, establishment of baseline data is time-sensitive. Unlike the census, which should be undertaken at the earliest opportunity to assure accuracy in determining eligibility for entitlement, other baseline data needs to reflect current conditions at the time of actual impact. In other words, census information establishing eligibility for entitlements is relatively durable but inflexible; lengthy delays or major redesigns require a new census, not adjustment of an existing one. Whereas baseline data tend to be perishable (and data base applications, of course, are premised upon periodic updating through internal monitoring and other means).

In general terms, if there is a lag of 3-5 years or more between the census and actual acquisition, demographic and socioeconomic factors may change significantly, diminishing the validity of census data. Some people are born, some people die, some come of age, marry, or move away. It is good practice to hold the census within one year of land acquisition if possible. Yet, in situations where an early census has been necessary to establish eligibility, but where implementation is delayed, a reasonable solution may be to update the earlier census prior to implementation, based upon agreed procedures for handling transfer of entitlements through inheritance, maturation, or property transactions.
Census and Inventory Surveys in Linear Projects
The project context also may affect the timing of census and survey exercises. In rural settings, where impacts are generally less diverse, census-taking may be less complicated. However, the affected population can be more dispersed, particularly in the case of linear projects. In urban projects, by contrast, impacts are often more complex, but the population is condensed.

Sometimes resettlement planning is phased, posing additional challenges to census-taking. In some linear projects, for example, implementation may begin in one location while engineering and siting specifications remain unknown further along the route (e.g., precise alignments for highways or transmission line, or site for a component to be built three years into project implementation). If the approximate location and land requirements are known, it is current practice to establish a "maximum corridor of impact," based upon the area included in preliminary designs and taking the census (and at least a basic inventory of structures) of the entire population within. Though this population is likely to be larger than that actually to be affected, this procedure serves the basic function of identifying those potentially eligible for entitlements. Additionally, this census information may be useful in choosing precise sites and alignments to minimize negative impacts. And census (and survey) data regarding the unaffected surplus population may be useful in establishing a "control group" for AP comparison. If siting cannot be even roughly determined, the component should be formally treated as a subproject for which a separate census and RP must be prepared.

Host Population
Where in a project the need to relocate APs can be determined at the outset and tentative relocation sites are identified, survey of host population, if any should also be carried out. The information required for host population include:

- Settlement patterns and locational arrangements
- Population density and production capacity of the land
- Socio-economic and demographic composition
- Common property resources
- Territorial claims to land and resources, if any
- Land utilization patterns
- Need for new infrastructure development
- Willingness and acceptability of host population
- Existing community organizations, cultural sites and networks

7.6 Organizing for Surveys

Format and Questionnaire
The format for collection of census, inventory and baseline data must be designed to meet the requirements of a particular project, the specific context and information requirements. The draft questionnaire should be field-tested to clarify whether the questions and the phrasing of them elicit the information required. The questionnaire should be designed such that the information can be codified for computerized data management.

Staffing
An experienced census/survey consultant should be employed to prepare and conduct the census. Enumerators for the census may consist of experienced survey staff of project agencies or a project resettlement office, or may be hired by the consultant. To ensure the
accuracy of the census, inventory and socio-economic baseline data, enumerators should be trained on the use of the formats in the field, and on coding and filing procedures. If a project resettlement office is to be established, its personnel should be trained to maintain and update census/survey data as needed during implementation and monitoring.

Field Operations
Questionnaires forms and personnel both should be prepared to accommodate local social and cultural conditions, most obviously including variations in language. Personnel should also be selected for cultural and cross-cultural compatibility. For example, it may be necessary to use female enumerators to elicit information from women in some settings. Enumerators should be familiar with local socioeconomic conditions, or be accompanied by local representatives to assist in identifying and defining customary property relations, including common property.

Coding and Recording
When conditions permit, survey results should be coded and recorded while teams remain in the field. Whether data is recorded manually or computerized, a methodology for consistency checks should be prepared in advance and employed for on-site confirmation of accuracy. Questionnaire forms should be reviewed at the end of each working day by the supervisors in-charge of field surveys.

Computerized Data management System
In projects affecting relatively large numbers of APs, it is important to consider the methods and technology to be used in data collection and management. For projects producing only small-scale displacement, census data can be collected and managed manually in accordance with customary procedures. But if large numbers of APs are involved (e.g., more than 500 households), manual processing of census and survey data may cause undue project delay. Or, if RP implementation requires coordination among several agencies, inconsistent data management methods can create confusion. Both of those unwelcome prospects can be avoided through introduction of computerized data management.

Formats for data recording, codes and software (if data is processed electronically), should be common or compatible among all institutions. Data generated during implementation of resettlement work should be transmitted to the project resettlement office (or other designated data management function) to be checked for accuracy, updated as implementation progresses, and maintained for monitoring and supervision.

Keeping data in electronic form facilitates rapid and effective maintenance, and simplifies merging of accumulating data sources. The computerized resettlement database also serves as the backbone for both internal and independent monitoring.

Sample data sheets for Inventory of Affected Assets and Household Socio-economic characteristics if shown in Annex 7.4 and Annex 7.5 respectively.
Annex to Chapter 7
Annex 7.1: Suggested List of Data for Census Survey

1. Background Information
   a. Questionnaire code and date of survey
   b. Name of interviewer
   c. Name of province, district and village/hamlet

2. Household Census
   a. Name of household head and all members household members
   b. Relationship of household members to the household head
   c. Age and sex of each household member
   d. Information on ethnicity
   e. Education level of each member
   f. Primary occupation and monthly income of each member
   g. Incomes from secondary sources for each member
   h. Location of job or businesses as the case may be
   i. Length of stay on present location

3. Tenure Status
   a. Category of land
   b. Type of land ownership and the name of the owner HH member
   c. Type of document possessed to certify ownership type
   d. If not owned, name and address of owner
   e. If informal use right, type of agreement
   f. Number of years used
   g. Rent per month paid by tenant
   h. Deposits made by lessee

Note:
In case census and inventory are conducted as separate exercise, some information on land use, affected structures and other fixed assets, and affected businesses should also be collected as part of census surveys.
Annex 7.2: Suggested List of Data for Inventory of Losses

The background information, household status and land tenure would be the same as in Annex 7.1. Additional information required will be as below:

1. Land
   a. Existing use of land
   b. Areas under different land usages, where applicable
   c. Total and affected area of land with breakdown by usages, if applicable
   d. Estimate whether the remaining area is viable for continued use
   e. Total area of land by type for compensation purposes

2. Structures
   a. Type of structure
   b. Number of floors
   c. Area by floor
   d. Name of owner of structure
   e. Year of construction
   f. Whether permit obtained for structure
   g. Use of structure and areas by usages, if applicable
   h. Description of building material used for roof, walls and floors by surface areas
   i. Type of foundation
   j. Description of any special features of structure
   k. Utility connections (electric meter, water supply, etc.)
   l. Charges paid for utility connections
   m. Affected area of structure
   n. Estimate whether the remaining structure is viable for continued use
   o. Total area of building for compensation purposes

3. Other Structures
   a. Types of structures (wells, boundary wall, fence, warehouse, etc.)
   b. Area of fish pond affected
   c. Average household income from fish pond
   d. Description of areas and construction material of affected structures
   e. Use of other structures

4. Agricultural Products
   a. Type of crops affected
   b. Owner of affected crops
   c. Total yearly production of crop on affected land
   d. Average yield of crop
   e. Are any products sold at market
   f. Number of employees/labor used for crop production
   g. Average value of crop
   h. Average yearly household income from agriculture

5. Trees
   a. Number and types of affected trees
   b. Age of trees
   c. Name of owner of trees
   d. Average yield of fruit bearing trees
e. Average yearly income from fruit trees

6. Business
   a. Type of business affected
   b. Name of owner of business
   c. Registration/permit number of business (check document)
   d. Total yearly household income from business
   e. Average operating expenditure of business
   f. Number of employees in business
   g. Number of permanent and temporary employees
   h. Average income and profit as reported for income tax (check document)
   i. Whether the business needs to be relocated?

7. Affected Public Utilities and Facilities
   • Description of affected community infrastructure
   • Description of affected facilities by area & building material used
   • Estimated number of population adversely affected by the facilities/infrastructure

8. Preference for Relocation
   • Whether there is a need for relocation or reorganization
   • Preferred mode of compensation (cash or kind) for land
   • Preferred mode of compensation for structure
   • Preferred type of assistance for income rehabilitation

9. Loss of Cultural and Religious Properties
   Any loss of cultural properties or artistic heritage
   Loss of religious buildings: temples, shrines, other places of worship
   Account of any historical sites or buildings with traditional architecture

10. Territorial Claims by any Ethnic Groups
    Account of any territorial claims of ethnic groups
Annex 7.3: Suggested Data for Baseline Survey

The background information, household status and land use information would be same as in Annex 7.1. Additional information would include the following:

1. Access to Facilities
   a. Access to electricity
   b. Type of water supply available
   c. Type of sanitation facilities within the building
   d. Distance to school
   e. Distance to health facilities
   f. Distance to market

2. Household Assets
   a. Type and number of farm equipment and implements owned by the household
   b. Type of other business equipment owned by household
   c. Estimated value of affected equipments
   d. Type of transport owned (bike, motorcycle, truck, animal cart, car, other)
   e. Major kitchen equipments owned (stove, cooker, etc.)
   f. Ownership of fridge, radio, TV, etc.
   g. General condition of building (excellent, good, average, poor)
   h. General condition of household furnishing (furniture, cupboards, etc.)

3. Household Income and Expenditure
   a. Average annual household income from all sources
   b. Average expenditure on major items: food, transport, health, education
   c. Any loans taken from bank, friends or relatives
   d. Approximate savings, if any

4. Skills Possessed
   a. Present educational level of each member
   b. Vocational training possessed by members
   c. Skills of each household member
   d. Types of training or skills preferred for further upgrading

5. Health Level
   a. Current health level of each member
   b. Any major illness in the households
   c. Cause of recent death in the household
   d. Any concerns about health issues in the household
### Annex 7.4: Inventory of Project Affected Assets (Sample)

**Province:** ____________________  **District:** ____________________  **Commune:** ________________

<table>
<thead>
<tr>
<th>Survey No.</th>
<th>Name of Head of Household</th>
<th>No. of persons in Hhold</th>
<th>Total Landholding of Hhold in M²</th>
<th>Land to be Acquired in M² by Type</th>
<th>Loss as % of total</th>
<th>Loss of Assets</th>
<th>Loss of Crops</th>
<th>Loss of Other assets</th>
<th>Other Losses</th>
<th>Temporary Losses (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Number and type of lost structures</td>
<td>Structures permanent (M²)</td>
<td>Structures temporary (M²)</td>
<td>Area of residential land lost (M²)</td>
<td>Fruit trees lost Type and Number</td>
</tr>
<tr>
<td></td>
<td></td>
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# Annex 7.5: Sample Format for Socio-Economic Household Data Sheet

Province: _______________  
District: _________________  
Commune: _________________  
Village: _______________

<table>
<thead>
<tr>
<th>Survey No.</th>
<th>Address of Household</th>
<th>Name of Household Member</th>
<th>Sex</th>
<th>Age</th>
<th>Ethnic Group</th>
<th>Education</th>
<th>Occupation and Sources of Income</th>
<th>Employment</th>
<th>Estimated Total Income per Year ($)</th>
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CHAPTER 8: Entitlements

8.1 Unit of Entitlement

Most development projects of public interest affect property owners and occupants, their dependants and community groups through acquisition of private, community assets or public assets. The entitlements to affected people should accordingly specify compensation and/or rehabilitation measures for respective units of entitlement: individuals (i.e. affected individuals and their households), groups and communities, and public institutions.

8.1.1 The Individuals

This category includes individuals (men and women) who may suffer one or a combination of the following losses:

- All or part of residential, agricultural, grazing and other private land under any form of tenure
- All or part of residential or commercial structures
- All or part of other structures
- Income sources and income-earning capacity
- Access to community resources
- Other losses e.g., reduced water flow (mill owners, irrigation users etc.).

The individuals can be the holder of land use right titles or tax receipts for occupied assets, tenant or lessee, non-registered tenant or landless squatter.

The entitlement unit also includes the household members of AP suffering any of the above-mentioned losses (i.e. Project Affected Family). The unit of entitlement for compensation will be the titleholder/household head, or heir(s), in the case of the loss of privately owned assets and resources. However, for subsistence allowances individual household member will be the unit of entitlement. On the other hand, for the rehabilitation assistance the unit of entitlement will be the household. For example, in some cases, household subsistence and survival strategies may be disrupted through the loss of land or business enterprises. In these cases, rehabilitation assistance such as the provision of employment will be extended to one or more adult household members.

8.1.2 Groups or Communities

The project may also have less-quantifiable or unforeseen effects on people living within the affected area or in the vicinity of the project. Potential negative impacts may include reduced access to natural resources, impacts on water supply and irrigation systems, or changes to local employment practices. For example, people living below the intake site may suffer from reduced water flow resulting in lowered agricultural production or fish harvests or reduced operation of water mills. Where these impacts occur, they will be mitigated under the project. Similarly, for measures to re-establish community structures such as burial sites, temples, irrigation canals, as well as compensation for loss of community forests, groups or the community will be the unit of entitlement.
8.1.3 Public Institutions

In projects with impact on government assets or public facilities and utilities such as power distribution lines, bridges, irrigation channels, schools, community center, hospital, etc. the unit of entitlement for compensation purposes would be the affected government department, institution or ministry, or local authority, as the case may be.

8.2 Establishing Categories of APs

Based on the information collected on affected assets in the field, the inventory data is analyzed to establish category of affected APs. The criteria used for establishing categories of APs are as follows:

- By type of losses: Land by type, structure, crops and trees, loss of income, business, employment;
- By degree of impact: marginal or severe;
- By tenure status: holder of LU Right certificate or tax receipts, non-title holder, squatter, etc.;
- Temporary or permanent impact

The level of compensation and entitlements to allowances and other assistance would vary depending upon the categories of APs determined based upon above criteria. The ‘degree of impact’ is one of the most important and critical criteria that determine the level of allowances and other assistance to APs. The key issues in regard to the degree of impacts are described below:

8.2.1 Degree of Impacts

Marginal Impacts

*In projects where only part of the assets: land and/or structures, trees and crops, are adversely affected and the APs are not displaced, the impacts are considered marginal. The important consideration in such cases is that the remaining assets remain viable for continued use. It must also be ensured that the remaining assets retain at least minimum required areas under the prevailing zoning laws. For example, in case of residential or commercial land, the remaining plot area should be sufficient for continued use in accordance with the prevailing standards for residential or commercial plots. In the case of agricultural land, the productivity of the remaining land area should be sufficient to support APs.*

Where a project results only in marginal impact on assets, such as in road widening, drainage improvement, some project authorities do not pay compensation to affected families on the ground of perceived indirect benefits of such infrastructure projects in the form of better access and improved environment resulting in increased asset values. However, these benefits of projects may take too long to take effect and that families may have to sell their assets to derive these benefits. In principle, all such APs should be entitled to compensation for their lost assets, incomes and businesses.

Sewerage or water main projects on the other hand would cause inconvenience to property owners and even result in temporary loss of incomes. To minimize the administrative and planning costs in such projects affected households may be offered a fixed lump-sum amount as compensation derived from average prevailing land values rather than compensation at replacement cost for each affected property.
In the case of partial loss of structures, compensation is paid only for the acquired portion and owners are responsible for demolition of affected part and for repairs to the remaining portion out of the compensation. In some cases and depending upon the types of structure, the cost of repair to the remaining structure may exceed the compensation amount received by APs. The Policy requires that in case of partial loss of structures, and where the remaining structure is viable for continued use, the APs would be entitled to an amount required to restore the remaining portion of the structure to its original use, in addition to compensation for the affected portion of the structure at replacement cost.

Severe Impacts
The impacts in a project on APs are considered severe if they result in the loss of entire assets, land and/or structures or where the assets are only partially affected but the project renders them unviable for continued use, or where APs are affected by loss of their source of income and employment.

Relocation or reorganization: In general, severe impacts cause displacement of APs from their present location and require acquisition of entire assets and assistance for relocation to resettlement site. Considering that displacement causes inconvenience and disruption to APs life, the decision on the viability of remaining assets, land and structures should be based on careful review and should be discussed with APs. In some cases where the entire structures are affected by a project or where only part structure is affected but the remaining structure is rendered unviable and if the remaining land is sufficient for construction of structure with a set-back, the re-organization on the same location would be a preferred solution to relocation.

Remaining Land for Alternate Use: In case where the remaining land is too small for construction of affected house, but the area is permissible for other uses: small shop or kiosk, and if the APs is willing to use the remaining land for such purposes, acquisition of entire land may not be necessary and the AP should be allowed to use the remaining land for other usages, especially if the value of the remaining area is likely to increase in the future.

8.2.2 Categories of APs

Taking into consideration above criteria, the categories of APs are presented below:

a. AP’s with permanent land use rights, marginally and severely affected;
b. AP’s with temporary land use rights (but unlegalizable)
c. Loss of Residential or Commercial Land Without Structures Built Thereupon (With Sufficient Remaining Area to Reorganize)
   -Legal users with permanent use rights or temporary use rights (but legalizable)
   -Legal users of affected land with temporary use rights (but unlegalizable)
   -Illegal users of affected land
d. Loss of Residential or Commercial Land With Structures Built Thereupon (With Sufficient Remaining Area to Reorganize)
e. Loss of Residential or Commercial Land With Relocation (Without Sufficient Remaining Area to Reorganize)
   -opting for cash
   -group relocation site
   -self-relocation
f. Legal AP’s with temporary rights and not legalizable as permanent:
g. Illegal AP’s
h. AP’s who have no rights to use the land acquired and no legal or legalizable land remaining will be entitled to one of the following options:
i. Loss of Structures
   - Legal owners with permission to build the structures;
   - Illegal owners who built structures without permission;
   - Tenants who have leased the building from owner.
j. Legal owner of the affected structure
   - Partial impact on structure
   - Entire structure affected
k. Illegal owner of the affected structure
l. Tenant of the affected structure
m. Independent Shop Owner
   - Shop owner with permanent rights to use the affected land
   - Shop owner with temporary rights but not legalizable to use the affected land.
   - Shop owner with no rights to use the affected land (illegal AP).
n. Loss of Standing Crops and Trees
o. Loss of Public Infrastructure and Other Assets

Categories of affected persons may change depending upon the location, legal provisions and eligibility criteria used in a project. A sample data sheet summarizing impacts on assets and other losses is shown in Annex 8.1.

8.3 Types of Entitlements

The Resettlement Policy, Decree and the Implementation Regulations specify four types of entitlements to APs in a development projects. These include:

   a) Compensation for affected assets, in cash or in kind;
   b) Allowances;
   c) Economic Rehabilitation Assistance; and
   d) Special Assistance to vulnerable groups.

Brief description of each of these and issues are discussed in the following sections.

8.3.1 Compensation

Cash & Non-cash Options
The provision of cash or non-cash option is determined based on the scale of impact in a project. The general criteria used is the economic viability of remaining assets as a principle, or 25% as a general threshold for cut-off point to determine eligibility criteria for cash and non-cash options. In operational terms the principle of economic viability of remaining assets can be implemented by establishing minimum standards.

Non-cash options provide greater opportunities for flexibility and innovative approaches to resettlement and rehabilitation and greatly improved opportunities to poor project affected persons for a more sustainable resettlement solutions.

Cash as a Preferred Option for Partial Impacts
In instances where only a part of land is affected while the remaining land is viable for continued use, only cash option is recommended. Any attempt to provide replacement land for affected portion will result in APs owning two separate plots at two different locations. For agricultural land this would mean additional burden on the family to attend to two plots with higher inputs and resources.
Land-for-Land
Land-for-land is a preferred option especially when the productive assets (agricultural and commercial land) are affected in a project. In rural setting land-for-land options are easier to implement. However, the practicability of implementing this option may vary from one project to another. The important criteria for selection of replacement land should be as follows:

a. The replacement land should have locational characteristics better or at least similar to the land lost. This is particularly important for residential and commercial land. For residential areas, the access to public facilities and market are critical and must be ensured. For commercial land, the accessibility to customers & transport is critical.

b. For agricultural land the productivity of replacement land is critical. Project authorities must ensure that the replacement land must have a better or at least equivalent productivity to the land lost.

c. The location of replacement land must be acceptable to the APs. The selection of land should be carried out in consultation with APs.

However, where possible, alternatives to displacement must be strived for. For example, in the Power Transmission Project in Indonesia, severely affected families were given the option to relocate or accept cash compensation with continued cultivation of affected land under the towers at the present location. All affected families preferred to remain at their present location. The combination of cash plus option to remain at present location and cultivate the affected land without any claim over such land resulted in avoiding any displacement and severe impacts on household incomes.

Entitlements to APs Without any Tenure Security
Compensation entitlements to illegal occupiers of state land are generally not recognized. Where the APs do not possess any legal rights to the affected occupied land, and if their entitlement to compensation for such land is not acceptable, some alternate development options should be looked into. Simply displacing them from present location will result in APs occupying some other land elsewhere. It is good practice to provide these APs some alternate location with secured tenure. Similarly, APs tenuous rights to gather forest products and shifting cultivation practices should be recognized by the project.

Recommendation to project authorities to address above issues include the following:

1. Identify tenure and title arrangements of all categories of project affected persons including tenants, squatters, ethnic minorities, and persons with usufruct and customary rights.

2. Project plans should define entitlements to each category of project affected persons in a simple matrix or summary table.

3. Compensation for acquired land should be sufficient to enable people to buy alternative land approximating similar type, productivity, size and tenure status in adjoining areas.

4. Collect information on current market rates based on recent transactions of land with different tenure status as documentary proof.

5. Improved compensation levels to the owners of land with weaker titles and tenure status can be further ensured through effective public information campaigns and provision of opportunities to negotiation over compensation.

Compensation for Structures
APs affected by loss of structures, partial or entire, are entitled to compensation for affected structures at replacement cost. The compensation determined for affected structures at current market prices for building material and labor should not be depreciated or deducted for salvageable building material. Further, the compensation should also include any transaction cost. APs would be entitled to compensation for all types of
affected structures including sheds, storage, boundary walls, well and all other subsidiary structure attached to the main building.

**Compensation for Trees and crops**

APs affected by the loss of fruit and perennial trees and affected crops would be entitled to compensation. Construction works in the project should, as far as possible, be planned to allow for the harvesting of non-perennial and perennial crops before land is acquired. Where crops cannot be harvested or the destruction of crops is unavoidable, compensation should be paid, based on the market values at the time of acquisition of land. All other resources from privately owned trees (e.g. timber/fuelwood) will remain the property of the concerned owner.

For land occupied by non-registered tenants, the amount of compensation for standing crops shall be decided in consultation with the land owner and affected tenant and taking into consideration any existing contract, written or verbal.

The Departments of Agriculture and Forestry should be consulted for deciding the compensation for affected fruit and perennial trees and crops.

**Compensation for Loss of Incomes and Businesses**

APs affected by the loss of employment, incomes or businesses are entitled to compensation for the losses, in addition to other assistances provided for in the Resettlement Policy, Decree and the Implementation Regulations. Determining level of compensation for loss of incomes due to affected businesses is often difficult to estimate. It is therefore, necessary to obtain information on average business incomes form the APs during the socio-economic surveys and inventory preparation.

8.3.2 Allowances

The types of allowances provided for in the Decree, and entitlement criteria are explained as follows:

**Materials Transportation Allowance**

All APs displaced by the project and are relocated to new site, either project related resettlement site or those opt for self-relocation, will be entitled to a transport assistance or cash allowance to transport their personal household effects and salvaged building materials to the new sites. The transport allowance must be provided to the APs prior to their displacement from existing location.

**Transition Subsistence Allowance**

All severely affected APs including those affected by the loss of entire productive assets (agricultural or commercial land or shop) or loss of primary source of household incomes and in need to be relocated to new site, or reorganizing on existing location, would be entitled to food support for each person in the household for a period of 6 months. APs displaced due to the loss of residential house without any impact on business or source of incomes will be entitled to food allowance for each member of household for a period of three months.

This allowance is intended to make up for lost income and to compensate for other household expenses during the transition period while APs are trying to settle down at the new site. The preferred mode of payment of this allowance is in kind. However, where this is logistically not possible and at specific request of APs, this allowance may be given in cash.
Repair Allowance
APs whose structures are only partly affected and the remaining part is viable for continued use will be entitled cash payment, over and above their compensation for affected part of structures, to cover the cost of repair of remaining structure. The amount should be sufficient to cover whole cost of repairs and may vary with the type of structure affected. Temporary structures will need relatively modest amount while the allowance for a permanent multi-storied structure will be significantly large. Therefore, different packages of repair allowance may be provided for in a project to suit different type and category of structures and should be finalized in consultation with APs.

Special Allowance for Loss of Businesses
APs affected by severe loss of businesses will be entitled to special allowance for loss of incomes to enable him or her to re-establish business during the transition period.

8.3.3 Rehabilitation Assistance
APs affected by severe loss of productive assets (agricultural or commercial land, shops, business premises), incomes and employment due to the project would be entitled to rehabilitation assistance over and above their entitlements to compensation and allowances. The rationale is that in the case of severe impacts, compensation and allowances alone are insufficient to enable APs to improve, or at least restore, their income and livelihood levels and to re-establish themselves on a sustainable basis. The provision of income rehabilitation assistance is therefore a critical instrument to achieve objectives of the Resettlement Policy in a project.

The types of assistance measures required will depend upon APs needs and priorities and skill level possessed by them. The measures will be decided in consultation with APs. More detailed description on rehabilitation assistance is given in Chapter 9.

8.3.4 Other Assistance (including types of special assistance to vulnerable groups)
Vulnerable groups affected by a project will be entitled to special assistance, over and above their entitlements to compensation, allowances and rehabilitation assistance, to ensure that they are able to re-establish themselves and improve their income levels the targets set under the project. The type of special assistance will vary depending upon the needs and priorities of vulnerable group and should be decided in consultation with APs.

8.4 Compensation Matrix
Based on the types of impacts, category of APs and their entitlements to the provisions of the Policy a Entitlement Matrix should be prepared showing specific entitlements to each category of APs. A sample Entitlement Matrix is shown in Annex 8.2. The entitlements shown in the sample matrix would need to be modified to suit specific project and adapted to match provisions of the National Resettlement Policy, Decree and the Implementation Regulations in Lao PDR.

8.5 Methodology for Assessment of Compensation
Assessment and payment of compensation for land and buildings is the most problematic and controversial aspect of resettlement. Although the existing legal provisions in Lao PDR do not bar compensation for affected assets at replacement cost, in practice the assessment is not always at replacement cost. Current procedures and recommendations on acceptable methodology for assessment of compensation for different types of assets are described as follows:
8.5.1  **Compensation for Land**

The Policy requires that compensation for land must be at replacement cost based on current market values. However, there is difficulty in reaching agreement on what constitutes fair market value. The determination of market value for land should be based on transactions that have taken place for the same type of land in the same geographic area. Unfortunately, in practice, very few land transactions are actually registered and those that are registered do not necessarily make public the true purchase price paid for the land.

In Lao PDR compensation for land is generally assessed based on the value as assessed by tax authorities for the purpose of determining property tax on land. These values can be obtained either from the local level tax authorities or from tax payment receipts. Neither these values updated every year nor do they reflect current market prices.

In the absence of any uniform procedures to determine replacement cost alternative methods need to be devised. For example, in the Nam Leuk Hydropower Project the assessment of compensation for the land permanently acquired was on the productive potential of the land and a cash compensation equivalent to 6-7 years’ of harvest was considered adequate to meet the policy requirement. Compensation for land temporarily acquired was made in the form of rice equivalent to harvests lost and in material improvements to the land’s productivity, such as upgrading of irrigation system, provision of small tractors and irrigation pumps so on. In the absence of any active real estate market, this methodology was considered adequate for assessment of compensation equivalent to the market value.

Assessment of compensation for affected land in urban areas would prove comparatively easier because of availability of information on transactions from estate agents and private legal offices that assist buyers and sellers.

Compensation for land is also dependent upon category of affected land and the type of land use rights possessed by APs. Values of construction and industrial lands are comparatively much higher than say, agricultural and forest land. Similarly, values also differ depending upon location. Land in urban areas enjoys higher values than those lie outside the urban area boundaries. In cities with the faster pace of development, the land lying just outside the urban areas enjoy almost same market prices as that of the land within the urban area boundary although the land outside the urban boundary may be classified as agricultural. The compensation assessment for such land outside the periphery of urban areas should be based on the market rates for urban land.

**Recommendations:**

1. In spite of reliability constraints, attempts must be made to collect information on market transactions in urban areas and the value of land as determined by the Ministry of Finance for tax purposes should be cross-checked by comparing with current sales values of land in the vicinity.

2. Comparative updated values local government and market, where possible, should be obtained and highest of these rates be used for negotiations with affected persons to arrive at negotiated settlement on compensation.

3. Due to the virtual non-existence of rural land markets the compensation should be determined based on the average productive values of land based on the past three to four years of production, and should be equivalent to at least 6-7 years of harvest value.
4. Compensation for land temporarily should be based upon rice equivalent to harvests lost and in material improvements to the land’s productivity, such as upgrading of irrigation system, provision of small tractors and irrigation pumps so on.

5. An early involvement of people in the project would ensure their cooperation and determining compensation at level acceptable to them.

8.5.2 Compensation for Structures

Currently, the compensation for structures is based on valuation of structures conducted based on the regulations issued by the Ministry of Communication, Transport, Post and Construction (Decree No. 1266/MCTPC, Urban Planning Department, “Regulation on the Valuation of Vehicles, Houses, built Structures and Household Facilities for Government Employee-personnel”, 29 August, 1995). The purpose of the Decree is to assess value of used government buildings and other assets for sale to government employees. However, the same decree is unjustifiably used for assessment of compensation for affected structures in projects. The values thus determined are revised further downwards taking into consideration depreciation and value of salvaged building material. Some bilateral donors allow salvage value to be deducted from fair market value.

Further, the current procedures for compensation include classifying affected structures into three main categories e.g. Permanent, semi-permanent, and temporary. In the case of a project with many affected structures, limited classifications may not fully cover different types of structures letting many structures fall in-between the three categories. Current procedures also make it difficult to determine market values of built structures such as: boundary walls, wells, sheds, small warehouses, etc., that do not strictly fall within the defined categories.

Procedures for assessment of compensation for affected structures vary with the level of accuracy required and available resources in a project. Some procedures used in the valuation of structures are summarized as follows:

a. **Quantity Survey Method.** This is the most detailed and precise method used for valuation of structures. This method involves preparation of detailed estimate of quantities of building material in each component of building and multiplying the same with the established scheduled rates per unit of quantities. The unit rates are pre-determined and are inclusive of cost of labor. In some countries the unit rates are established by designated ministry and are revised every year. The schedule of rates is used for inviting bids for public construction contracts. The procedure is very accurate, tedious and time consuming. The method requires skilled and experienced quantity surveyors with good knowledge of building construction as member of the survey team. This procedure is suitable only if skilled personnel are available as part of the survey team.

b. **Estimates of Building Material.** This method is similar to the quantity survey method but where the scheduled rate is not available. The quantities of building material used in each component of building are estimated and are multiplied with current market rates for each type of building material to obtain total cost of building material. The cost of building material is obtained from market prior to start-up of survey. The cost of labor, say about 25% to 30% of the cost of building material, is then added to obtain total value of the building. This method is equally tedious and time-consuming and requires experienced quantity surveyor as member of the survey team. This method is used extensively in several countries to determine values of affected structures in development projects.

c. **Categories of Structures.** This method requires establishing standard categories of structures based on the type and use of building material and determining cost of per unit area of each category covering the cost of material and labor. These categories may include
classification such as: Permanent, Semi-permanent and Temporary. The structures affected in the project are then classified into these categories and area of each affected structure is multiplied with the pre-determined unit rates. The level of accuracy varies with the number of categories established in a project. The smaller the number of categories in a project, the easier it is to calculate cost with least accuracy. The larger number of categories will ensure better accuracy in determining cost of affected structure. The main weakness of the procedure is that it is rigid and large number of affected structures is divided into some specific categories that may or may not be suitable. This is also unsuitable where affected structures are constructed with a very diverse type of building material making it difficult to classify into simple three or four categories. In spite of its limitations this procedure is used in several countries, including Lao PDR, for its simplicity. A sample of categories and cost is given in Annex 8.3.

d. Surface Area Method. Realizing the limitations of the valuation procedure based on categories of structures, a more detailed procedure is devised to take into account the use of diverse type of building material for construction of floor, walls and roofs. This procedure is simplified version of the first two procedures explained above. This involves establishment of different categories of building components based on the type of building material used and pre-determine the cost of construction and labor for unit area of each type. In the field during the preparation of inventory, the surface area of each building component is measured and recorded. The area is then multiplied with pre-determined rates to arrive at the cost of the building component. This procedure is currently being used in some projects in Cambodia and ensures greater accuracy compared with the previous used method of categories of structures. A sample is shown in Annex 8.4.

Recommendations:
In spite of its limitations and given the market constraints, resources and available skills of the available staff in various line ministries the use of current method of establishing categories of structures appears to be most suitable in Lao PDR. However, the current method of classifying affected structures into predefined categories should be further refined by establishing a larger number of categories/house types and ensuring that the categories are fully representative of different types of buildings in a project.

The key consideration in the assessment of compensation for structures include:
(i) updated and current market rates for building material and labor are used for assessment;
(ii) assessed values are not depreciated; and
(iii) no deductions are made for salvaged building material.

8.5.3 Compensation for Crops, Trees and Plants

Compensation for crops, trees and plants are generally established based on the age and productivity of fruit and perennial trees. In some countries, the rates for different types of trees are established by agriculture department or ministry of agriculture. However, where these rates are not available, project authorities should establish compensation rates for trees prior to start up of field surveys. The rates should be discussed with local authorities and representatives of APs and finalized.

Compensation for Crops
Compensation for affected crops should be based on the farmgate prices and mandated crop valuation set by concerned government agencies such as the Department of Agriculture. Farmgate prices can be obtained from the nearest market.
Compensation for Perennial Trees
Compensation assessment for perennial trees should be based on the age and the remaining productive years of the trees. If the affected trees are young and have not started bearing fruits, a lump-sum amount to cover for the maintenance and rearing of trees should be made. In case the tree has already started bearing fruits, the annual productive value should be determined from making local enquiries, and the compensation equivalent to 3 years of annual production value should be paid to the APs.

All compensation for affected crops and trees should be based on gross harvest income taking into consideration the cost of production and material. A sample of compensation rates for trees and crops used in a project in Cambodia is shown in Annex 8.5.

8.5.4 Compensation for Other Fixed Assets

In practice most fixed assets (water and electric connections, wells, septic tanks, etc.) are considered part of structures. These should be carefully inventoried and costed based on the current market rates for purposes of compensation.
Annex to Chapter 8
Annex 8.1: Entitlements of project Affected People (Sample)

Province: ____________________  District: ___________________  Commune: ________________

<table>
<thead>
<tr>
<th>Survey No.</th>
<th>Name of Head of Household</th>
<th>Compensation for Land</th>
<th>Compensation for Structures</th>
<th>Compensation for Crops &amp; Trees</th>
<th>Compensation for Other Assets (wells, Tombs, etc.)</th>
<th>Total in $</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Quantity Sq. Meters</td>
<td>Unit Price Sq. Meters</td>
<td>Entitlement in $</td>
<td>Quantity Unit</td>
<td>Unit Price in $</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

Page 69 of 186
## Annex 8.2: Compensation Matrix (Sample)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
</table>
| (a) Arable land | a.1 Less than 20% of total landholding to be acquired (marginal impact on household income and living standards). | a) Legal user of affected land with permanent land rights, and AP’s who meet the criteria for permanent land use rights and will therefore be issued with permanent LURC in due time. | - cash compensation for crops and trees at market price, AND  
- cash compensation for acquired land at 100% of replacement cost. |
|              |             | b) Legal user of affected land with temporary land rights (unlegalizable). | - Cash compensation for crops and trees at market price; AND  
  - (a) cash compensation for affected land corresponding to 100% of the replacement cost of affected land; OR  
  - (b) cash assistance for lost income from the affected land for the remaining period of the temporary land use right. |
|              |             | c) Legal user of affected land with lease land rights (unlegalizable). | - cash compensation for crops and trees at market price; AND  
- cash assistance for loss income for the remaining lease period. |
## Entitlement Matrix (continued)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
</table>
| Arable land (cont’d) | a.2 More than 20% of total land holding and remaining land is rendered unviable for continued use. (severe impact on household income and living standards.) | a) Legal user of affected land with permanent land rights, and AP's who meet the criteria for permanent land use rights and will therefore be issued with permanent LURC in due time. | - Cash compensation for crops and trees at market price;  
- (a) full title to land of equal productivity at location acceptable to AP's, wherever available; OR  
- (b) cash compensation for lost land at 100% replacement cost at the informed request of AP's;  
- Transport allowance to shift to relocation site;  
- Subsistence allowance for six months;  
- Rehabilitation package (training for one family member in current or new occupation and training allowance / agricultural extension services, and farm inputs to increase productivity on remaining land, or any other type of suitable assistance) |
| a.2 More than 20% of total land holding and remaining land is rendered unviable for continued use. (severe impact on household income and living standards.) | b) Legal user of affected land with temporary land rights (unlegalizable). | - AP's will be entitled to:  
- Cash compensation for crops and trees at market price;  
- cash equivalent to 100% of the replacement cost of the affected land;  
- Transport allowance;  
- Subsistence Allowance for 6 months,  
- a rehabilitation package (training for one family member in current or new occupation and training allowance / agricultural extension services, and farm inputs to increase productivity on the farm land, or any other suitable assistance); OR  
- Cash assistance to provide for lost income from the land for the remaining period of temporary land use right. |
Entitlement Matrix (continued)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
</table>
|              |             | c) Legal user of affected land with lease land rights (unlegalizable). | • APs will be entitled to:  
- Cash compensation for loss of crops and trees at market prices;  
- Land for land compensation of equivalent productive capacity at location acceptable to the APs and on a similar lease basis if available; OR Cash equivalent to provide for lost income from affected land for the remaining lease period;  
- Transport allowance;  
- Subsistence allowance for each family member for 6 months;  
- Rehabilitation package (training for one family member in current or new occupation and training allowance OR agricultural extension services, and farm inputs to increase productivity on the farm land OR any other suitable assistance). |
| Temporary loss | Loss of use of the land for a period up to a maximum of 1 year. | Legal user of affected agricultural land | Cash compensation for loss of crops at market prices |
| (b) Residential and/or commercial land (without structures built thereon) | Loss of residential or commercial land due to the project works | Legal land user with permanent rights or temporary rights (but legalizable). | APs will be entitled to cash compensation at 100% of replacement cost of the affected land. |
| (c) Residential and/or commercial land (with structures built thereon) | Loss of residential or commercial land. With remaining legal residential and/or commercial land sufficient to reorganize (at least equal to 100 m² in rural area) | a) Legal user of affected land with permanent use rights or temporary use rights that will be legalized in due time. | - Cash compensation for land lost at 100% of replacement cost;  
- Subsistence allowance for 3 months;  
- Repair cost to re-build the house front if structures partially affected;  
- APs who are allowed to reorganize will be issued a permanent LURC in case not yet obtained.  

In exceptional cases, permission may be given to APs to reorganize on their remaining legal land in area less than the standard. APs will be entitled to a special allowance equivalent in value to the difference in land area between the standard plot size and the remaining area on which AP is reorganizing, at the rate of replacement. APs are also entitled to repair costs for partially demolished structures. |
Table 5.2: Entitlement Matrix (continued)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(d) Loss of residential or commercial land</td>
<td>APs has remaining permanently legal or legalizable residential and/or commercial land less than 100m²</td>
<td>a) Legal APs of the affected land with permanent use rights.</td>
<td>Group Relocation:</td>
</tr>
<tr>
<td>(with structure)</td>
<td></td>
<td></td>
<td>- Land for land compensation of full title to a standard size plot, on a project sponsored relocation site, (for residential or residential and commercial 100 m²; and for commercial only 14 m²) of land of the same quality (or better) as the affected land and for their remaining legal land (not less than the minimum standard plot size). APs losing an area greater than the plot in RS will receive compensation in cash for the difference;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Sites will be serviced with electricity, water, drainage, access and internal road, and will provide the same access to services (health, education, market) as at the former location, either on site or in the vicinity; OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self Relocation: At the informed request of the APs they may make their own arrangements for relocation and will be entitled to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Cash in lieu of land at 100 % replacement cost;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Transport allowance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Subsistence allowance for a period of 6 months;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- APs who have their business affected will be entitled to a special income rehabilitation allowance (USD 100 per household) to provide for loss of income during the transition period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Assistance from local authorities to locate possible plots and to purchase land for resettlement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Re-organization: Only in exceptional cases permission may be given to APs to organize on their remaining legal land in less than standard area. APs will be entitled to a special allowance equivalent in value to the difference in land area between the standard plot size on a RS and the remaining area on which AP is reorganizing, at the rate of RS land. Reorganizing APs will get subsistence allowance for three months.</td>
</tr>
<tr>
<td>Residential or commercial land (continued)</td>
<td>less than 100m² (same as above)</td>
<td>b) Legal APs of the affected land with temporary use rights (but unlegalizable).</td>
<td></td>
</tr>
</tbody>
</table>
### Entitlement Matrix (continued)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential or commercial land</td>
<td>less than 100m²</td>
<td>c) Illegal APs with no rights to use the affected land and not legalizable.</td>
<td>APs who have no rights to use the land acquired and no legal or legalizable land remaining will be entitled to one of the following options:</td>
</tr>
<tr>
<td>(continued)</td>
<td>(same as above)</td>
<td></td>
<td>Group relocation: same as for entitled persons category a); OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self-Relocation: At the informed request of APs they may make their own arrangements for relocation and will be entitled to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Cash assistance equivalent to the actual cost of a plot in resettlement site;</td>
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<td></td>
<td></td>
<td></td>
<td>- Cash compensation at replacement cost for their structures;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Transport allowance to relocation site;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Subsistence allowance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- APs who are entitled to relocation and who have business affected will be entitled to a special income rehabilitation allowance of USD100 to provide for loss of income during the transition period;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Assistance from local authorities to locate possible plots and to purchase land for resettlement.</td>
</tr>
<tr>
<td>(e) Structures</td>
<td>Structures affected by the project</td>
<td>a) Legal owner of the affected structure.</td>
<td>- APs with legal right to build the affected structure will be entitled to compensation at 100% of replacement cost of the affected structure,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>including material, cash or a combination of the two. No deduction will be made for depreciation or for salvageable materials.</td>
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<td></td>
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<td></td>
<td>- Partially affected structures will be compensated for the affected part at replacement cost and additional cash assistance (Repair allowance) will</td>
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<td></td>
<td></td>
<td></td>
<td>be made to cover the cost of repairing the structure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Tenants of leased affected structure</td>
<td>- Tenants of structures will be entitled to 3 months rent allowance and assistance in finding alternate rental accommodation</td>
</tr>
</tbody>
</table>

- APs with legal right to build the affected structure will be entitled to compensation at 100% of replacement cost of the affected structure, including material, cash or a combination of the two. No deduction will be made for depreciation or for salvageable materials.

- Partially affected structures will be compensated for the affected part at replacement cost and additional cash assistance (Repair allowance) will be made to cover the cost of repairing the structure.
## Entitlement Matrix (continued)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(f) Independent</td>
<td>Shops located in the project area (with residences at a different location).</td>
<td>a) Legal owner of the shop with permanent rights to use the affected land.</td>
<td>APs will be entitled to one of the following options:</td>
</tr>
<tr>
<td>shop owners</td>
<td></td>
<td></td>
<td><strong>Group Relocation:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Land for land compensation of full title to a plot of land on a group resettlement site of the same area and quality as the area lost (minimum 14 m²) on the site suitable for restoring business or at a market place;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Cash compensation for affected structure at replacement cost;</td>
</tr>
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<td></td>
<td></td>
<td>- Transport allowance;</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Subsistence allowance for 6 months;</td>
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<td>- Special income rehabilitation allowance of US$ 100 to provide for lost income during the transition period;</td>
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<td>- Suitable rehabilitation assistance: OR</td>
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<td><strong>Self relocation:</strong> At the informed request of APs they may make their own arrangements for relocation and will be entitled to:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Cash compensation at replacement cost for their land lost:</td>
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<td></td>
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<td>- Cash compensation for their structures;</td>
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<td></td>
<td></td>
<td>- Transport allowance;</td>
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<td></td>
<td></td>
<td></td>
<td>- Subsistence allowance;</td>
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<td></td>
<td></td>
<td></td>
<td>- Suitable rehabilitation assistance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Special income rehabilitation allowance of US$ 100 to provide for lost income during the transition period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Assistance from local authorities in identifying individual resettlement sites</td>
</tr>
</tbody>
</table>
## Entitlement Matrix (continued)

<table>
<thead>
<tr>
<th>TYPE OF LOSS</th>
<th>APPLICATION</th>
<th>DEFINITION OF ENTITLED PERSON</th>
<th>COMPENSATION POLICY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent shop owners (continued)</td>
<td>b) Illegal owner of the shop with no land use rights</td>
<td></td>
<td>APs will be entitled to one of the following options:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Group relocation:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Assistance to relocate to suitable site or at market place;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Cash compensation for affected structure;</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>- Transport assistance;</td>
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<td></td>
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<td></td>
<td>- Special income rehabilitation allowance USD 50 to provide for lost income during the transition period;</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>- Subsistence allowance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Suitable rehabilitation assistance. <strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Self relocation:</strong> At the informed request of AP’s they may make their own arrangements for relocation and will be entitled to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Cash assistance at 100% of replacement cost for their structures;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Transport allowance;</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Subsistence allowance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Special income rehabilitation allowance USD 50 to provide for lost income during the transition period;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Suitable rehabilitation assistance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Assistance from local authorities in identifying individual resettlement sites.</td>
</tr>
<tr>
<td>Graves</td>
<td>Graves located in the area acquired.</td>
<td>Household who owns the graves</td>
<td>APs are entitled to cash compensation for all costs of excavation, movement and reburial.</td>
</tr>
<tr>
<td>Private wells</td>
<td>Wells located in area acquired.</td>
<td>Household who owns the well.</td>
<td>Cash compensation at replacement cost or a replacement well if requested by the AP.</td>
</tr>
<tr>
<td>Crops</td>
<td>Affected Crops</td>
<td>Owner of affected crops</td>
<td>Compensation in cash at current market prices (farmgate price of crops plus cost of production)</td>
</tr>
<tr>
<td>Perennial Trees</td>
<td>Affected Trees</td>
<td>Owner of trees</td>
<td>APs will be entitled to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- A lump sum amount for young non-fruit bearing trees to cover for the cost of maintenance and inputs;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- For fruit bearing trees compensation at 3 years production value at current market prices.</td>
</tr>
</tbody>
</table>
# Annex 8.3: Categories of Structures
*(Sample from Cambodia)*

<table>
<thead>
<tr>
<th>Cat. Type</th>
<th>Description</th>
<th>lowest in US$ per m²</th>
<th>highest in US$ per m²</th>
<th>average in US$ per m²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RURAL</strong></td>
<td>1: hut</td>
<td>Ground level, thatch roof, thatch walls</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>2. cottage</td>
<td>Elevated, thatch roof, thatch walls</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>3. poor house</td>
<td>Elevated, iron, zinc sheets or tiled roofing, thatch walls</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>4. medium house</td>
<td>Elevated, iron, zinc sheets or tiled roofing, wooden floor and walls</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td><strong>SEMI URBAN</strong></td>
<td>5. Khmer 2-storey</td>
<td>Two floors, iron, zinc sheets or tiled roofing, ground floor concrete columns, brick walls, cement floor, second floor wood, wooden columns</td>
<td>65</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>6. 1-story urban style</td>
<td>One floor, iron, zinc sheets or tiled roofing, concrete columns, brick walls, cement floor</td>
<td>70</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>7. 2-storey urban style</td>
<td>Two floor, iron, zinc sheets or tiled roofing, concrete columns, brick walls, cement floor and ceiling</td>
<td>85</td>
<td>90</td>
</tr>
</tbody>
</table>
## Annex 8.4: Unit Price for Structural Components by Type of Construction
(Sample from Cambodia)

<table>
<thead>
<tr>
<th>No.</th>
<th>Building Components</th>
<th>Unit</th>
<th>Quantity ($)</th>
<th>Unit Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td><strong>Foundation and floor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Mortar</td>
<td>m²</td>
<td>1</td>
<td>4.25</td>
</tr>
<tr>
<td>2</td>
<td>Lean concrete</td>
<td>m²</td>
<td>1</td>
<td>5.00</td>
</tr>
<tr>
<td>3</td>
<td>Floor tiles (Esp)</td>
<td>m²</td>
<td>1</td>
<td>10.50</td>
</tr>
<tr>
<td>4</td>
<td>Floor tiles (Chi)</td>
<td>m²</td>
<td>1</td>
<td>3.35</td>
</tr>
<tr>
<td>5</td>
<td>Burned clay floor tile</td>
<td>m²</td>
<td>1</td>
<td>3.40</td>
</tr>
<tr>
<td>6</td>
<td>Pavement brick</td>
<td>m²</td>
<td>1</td>
<td>5.00</td>
</tr>
<tr>
<td>7</td>
<td>Concrete foundation</td>
<td>m³</td>
<td>1</td>
<td>150.00</td>
</tr>
<tr>
<td>8</td>
<td>Fence beam</td>
<td>m</td>
<td>1</td>
<td>9.50</td>
</tr>
<tr>
<td>II</td>
<td><strong>Column, Bracing and other wooden structures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Fence pole100x100x2000</td>
<td>Pole</td>
<td>1</td>
<td>1.20</td>
</tr>
<tr>
<td>2</td>
<td>Fence pole 100x100x2500</td>
<td>Pole</td>
<td>1</td>
<td>1.50</td>
</tr>
<tr>
<td>3</td>
<td>Wooden</td>
<td>m³</td>
<td>1</td>
<td>210.00</td>
</tr>
<tr>
<td>4</td>
<td>Sugar palm wood</td>
<td>m³</td>
<td>1</td>
<td>120.00</td>
</tr>
<tr>
<td>5</td>
<td>Wooden plank</td>
<td>m³</td>
<td>1</td>
<td>150.00</td>
</tr>
<tr>
<td>6</td>
<td>Reinforced concrete column and beam</td>
<td>m³</td>
<td>1</td>
<td>120.00</td>
</tr>
<tr>
<td>7</td>
<td>Footing 0.30m</td>
<td>Pole</td>
<td>1</td>
<td>0.64</td>
</tr>
<tr>
<td>8</td>
<td>Footing 0.50m</td>
<td>Pole</td>
<td>1</td>
<td>0.89</td>
</tr>
</tbody>
</table>
### III Wall

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wooden plank wall</td>
<td>m²</td>
<td>1</td>
<td>4.20</td>
</tr>
<tr>
<td>2</td>
<td>Layered hollow brick 100mm</td>
<td>m²</td>
<td>1</td>
<td>2.45</td>
</tr>
<tr>
<td>3</td>
<td>Layered solid brick 100mm</td>
<td>m²</td>
<td>1</td>
<td>4.90</td>
</tr>
<tr>
<td>4</td>
<td>Layered hollow brick 200mm</td>
<td>m²</td>
<td>1</td>
<td>4.90</td>
</tr>
<tr>
<td>5</td>
<td>Layered solid brick 200mm</td>
<td>m²</td>
<td>1</td>
<td>9.80</td>
</tr>
<tr>
<td>6</td>
<td>Brick wall with plaster</td>
<td>m²</td>
<td>1</td>
<td>1.20</td>
</tr>
<tr>
<td>7</td>
<td>Bamboo (round)</td>
<td>m</td>
<td>1</td>
<td>0.14</td>
</tr>
<tr>
<td>8</td>
<td>Wooden frame</td>
<td>m</td>
<td>1</td>
<td>0.08</td>
</tr>
</tbody>
</table>

### IV Door and Window

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hinged folding wooden door</td>
<td>m²</td>
<td>1</td>
<td>6.70</td>
</tr>
<tr>
<td>2</td>
<td>Glassed door with steel bar</td>
<td>m²</td>
<td>1</td>
<td>18.00</td>
</tr>
<tr>
<td>3</td>
<td>Sliding door</td>
<td>m²</td>
<td>1</td>
<td>24.00</td>
</tr>
<tr>
<td>4</td>
<td>Wooden frame fence door</td>
<td>m²</td>
<td>1</td>
<td>3.70</td>
</tr>
<tr>
<td>5</td>
<td>Wooden door with corrugated steel</td>
<td>m²</td>
<td>1</td>
<td>5.00</td>
</tr>
<tr>
<td>6</td>
<td>Bracing corrugated steel sheet and</td>
<td>m²</td>
<td>1</td>
<td>2.64</td>
</tr>
<tr>
<td></td>
<td>wooden frame window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Glassed window with decorated steel bar</td>
<td>m²</td>
<td>1</td>
<td>18.00</td>
</tr>
</tbody>
</table>

### V Ceiling and Roof

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White corrugated steel sheet</td>
<td>m²</td>
<td>1</td>
<td>1.68</td>
</tr>
<tr>
<td>3</td>
<td>Burnt clay roof tile</td>
<td>m²</td>
<td>1</td>
<td>2.37</td>
</tr>
<tr>
<td>4</td>
<td>Asbestos corrugated steel sheet</td>
<td>m²</td>
<td>1</td>
<td>2.13</td>
</tr>
<tr>
<td>5</td>
<td>Wooden roof structures for corrugated steel sheet</td>
<td>m²</td>
<td>1</td>
<td>2.50</td>
</tr>
<tr>
<td>7</td>
<td>Aluminum and corrugated steel structure</td>
<td>m²</td>
<td>1</td>
<td>8.00</td>
</tr>
<tr>
<td>8</td>
<td>Corrugated steel sheet and steel structures</td>
<td>m²</td>
<td>1</td>
<td>10.00</td>
</tr>
</tbody>
</table>
## Annex 8.5: Compensation Rates for Trees and Crops
### (Sample from Cambodia)

### TREES:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>wood value per m2 plank</th>
<th>Annual production in US$</th>
<th>CEDAC farmer bulletin*</th>
<th>Appraisal among Chamka</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Special trees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mango</td>
<td></td>
<td>2.6</td>
<td>40</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Durian</td>
<td></td>
<td>2.6</td>
<td>68</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Rambutan</td>
<td></td>
<td>2.6</td>
<td>68</td>
<td>18.2</td>
<td></td>
</tr>
<tr>
<td>Palm juice producing tree</td>
<td></td>
<td>per piece 4.7</td>
<td>25</td>
<td>118.4</td>
<td></td>
</tr>
<tr>
<td>2. Common trees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamarind sour</td>
<td></td>
<td>2.6</td>
<td>13</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>Tamarind sweet</td>
<td></td>
<td>2.6</td>
<td>13</td>
<td>65.7</td>
<td></td>
</tr>
<tr>
<td>Coconut</td>
<td></td>
<td>1.3</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar palm</td>
<td></td>
<td>per piece 4.7</td>
<td>25</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Jackfruit</td>
<td></td>
<td>2.6</td>
<td>21</td>
<td>33.6</td>
<td></td>
</tr>
<tr>
<td>Guave</td>
<td></td>
<td>2.6</td>
<td>12</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Banana</td>
<td></td>
<td>1.0</td>
<td>21</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Milk fruit</td>
<td></td>
<td>2.6</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longana</td>
<td></td>
<td>2.6</td>
<td>20</td>
<td>27.7</td>
<td></td>
</tr>
<tr>
<td>Mangosteen</td>
<td></td>
<td>2.6</td>
<td>10</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Lemon</td>
<td></td>
<td>0.8</td>
<td>4</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Papaya</td>
<td></td>
<td>0.7</td>
<td>5</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>3. Bamboo stands</td>
<td>small size</td>
<td>per piece 0.5</td>
<td>4</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>medium size</td>
<td></td>
<td>6</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>large size</td>
<td></td>
<td>21</td>
<td>10.50</td>
<td></td>
</tr>
</tbody>
</table>
### VEGETABLE & RICE GARDEN:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>lowest annual product</th>
<th>highest annual product</th>
<th>average annual product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Home garden</td>
<td>Only for own consumption</td>
<td>0.3</td>
<td>1.3</td>
<td>0.8</td>
</tr>
<tr>
<td>2. Cash crop garden</td>
<td>Mostly for sale</td>
<td>1.3</td>
<td>2.6</td>
<td>2.0</td>
</tr>
<tr>
<td>3. Rice field</td>
<td>Own consumption or sale</td>
<td>0.07</td>
<td>0.1</td>
<td>0.08</td>
</tr>
</tbody>
</table>

### FENCES & WALK BRIDGE

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>unit</th>
<th>lowest rate</th>
<th>highest rate</th>
<th>average rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. fence wooden polls</td>
<td>with wire or bamboo, etc.</td>
<td>m</td>
<td>1.5</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>2. fence cement polls</td>
<td>with wire or bamboo, etc.</td>
<td>m</td>
<td>3</td>
<td>7</td>
<td>5.0</td>
</tr>
<tr>
<td>3. fence bricks or cement</td>
<td>with bricks and cement</td>
<td>m</td>
<td>15</td>
<td>20</td>
<td>17.50</td>
</tr>
<tr>
<td>4. wooden bridge</td>
<td>per m2</td>
<td>m2</td>
<td>8</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td>5. concrete/brick bridge</td>
<td>per m2</td>
<td>m2</td>
<td>20</td>
<td>25</td>
<td>22.5</td>
</tr>
</tbody>
</table>

### WELLS

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>lowest rate</th>
<th>highest rate</th>
<th>average rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Simple well</td>
<td>hole, not tube, no cement</td>
<td>15</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>2. Drill well</td>
<td>hole with tube</td>
<td>125</td>
<td>175</td>
<td>150</td>
</tr>
<tr>
<td>3. Drill well finished</td>
<td>hole with tube, pump and concrete</td>
<td>220</td>
<td>230</td>
<td>225</td>
</tr>
</tbody>
</table>
CHAPTER 9: Economic Rehabilitation

9.1 Introduction

Few aspects of resettlement are as poorly understood as the process of improving and restoration of incomes and lost livelihoods of APs. While logistical and compensation issues attract attention and present challenges, the acid test of successful resettlement remains improving affected people’s income. Without successful implementation of rehabilitation assistance that ensures restoration of incomes and livelihood of project affected persons, the objectives of the project and of its social policy cannot be considered having achieved. But, despite its importance, little guidance exists on how to achieve results; what works and what does not and why? This section attempts to provide answers to some of the questions that project authorities are faced with and to provide some guidance in planning and implementation of rehabilitation assistance in development projects.

There are three main issues that are important and critical to the success of restoring incomes and livelihood of affected population in development projects:

Planning: Preparing income restoration plans requires excellent baseline data on affected people’s skills, educational level, economic base, needs and priorities. Information is also required on market potential and feasibility assessment of proposed schemes (including market demand and production capacity) and log frame analysis of proposed activities. The plans and strategies for income restoration should include assessment of peoples’ needs and priorities during the planning stage.

Implementation: Income restoration plan during its implementation must focus on identifying and overcoming affected people’s attitudes and constraints (not just financial or resource constraints), ensuring multi-disciplinary approach needed to coordinate with the existing programs, and building the capacity of the affected community to take responsibility for their own future livelihood, rather than promoting dependency.

Evaluation: This is the key result of the success of income restoration plans. To ensure this, from the beginning, the affected people need to understand the criteria for success, the need for eventual self-reliance and the importance of sustainability. If all participants do not share the same destination or target, they will never reach any satisfactory results.

When to Plan / Implement?

On the issue of when the project authorities plan and implement economic rehabilitation measures, most agree that it should preferably be done before physical relocation of those displaced. Since planning of economic rehabilitation requires consultation with people, the focus should be on planning and implementing economic rehabilitation measures ahead of shifting project displaced people. The planning activities should therefore, begin at the earliest possible stage of resettlement implementation. Most project authorities place emphasis on completing compensation payment and resettlement site development to speed up relocation of project affected people in order to expedite handing over project sites for civil works. However, experience suggests that once people or provided with compensation and relocated,
it is almost impossible to locate them and to carry out meaningful consultation on economic rehabilitation, especially in linear projects where APs in general and those entitled to economic rehabilitation in particular are dispersed over a very long project areas. In case affected people are relocated as a group on resettlement sites provided and developed under the project, implementation of economic rehabilitation measures can take place after their relocation.

### 9.2 Eligibility for Economic Rehabilitation

Entitlements to economic rehabilitation assistance to project affected persons is recommended where the compensation for lost assets and allowances alone are not likely to be sufficient for restoration of incomes and livelihood. As such, all ‘severely’ affected households due to the entire loss of productive assets (agricultural land, commercial premises used for businesses), businesses and incomes are entitled to rehabilitation assistance. In general, loss of residential land and/or residential structures, whether partial or entire, without any impact on the employment or sources of household incomes, will not entitle any AP for rehabilitation assistance. However, any severe impact on business activities, even though they may be carried out at residential premises, resulting in displacement and loss of source of household income will entitle the household for economic rehabilitation assistance.

What Constitutes ‘Severe’ and ‘marginal’ Impact

The principle that governs entitlement to rehabilitation assistance is the viability of remaining holdings for continued use and for sustainable maintenance of household incomes and livelihood, at least at the pre-project levels. As such, the APs affected by the loss of productive land, say between 15-20% should not be automatically excluded from rehabilitation assistance. If the remaining land becomes unviable for continued use, these APs should be entitled to compensation for entire holdings as well as for rehabilitation assistance. On the other hand, if the remaining land remains economically viable and sufficient to maintain the income levels of the affected households even if more than 25% of holding is affected, the AP would not be entitled for rehabilitation assistance.

### 9.3 Issues in Economic Rehabilitation Planning and Implementation

#### Focus on Vulnerable Groups

Displacement causes severe disruption of peoples lives, distress and anxiety. Displacement together with the loss of source of income is the worst type of impact that a project can cause to a household. Most serious case of economic displacement is when the affected household belongs to a vulnerable group (poverty group, squatter, etc.). Project authorities should make special efforts to identify such vulnerable groups during the census and socio-economic survey stage, and economic rehabilitation assistance should particularly focus on such households.

#### Economic Rehabilitation in Urban Context

In high density urban areas development projects affect a large number of people in more than one ways. While it is comparatively easier to identify loss of physical assets, loss of incomes and businesses are more difficult to assess and designing appropriate rehabilitation measures extremely difficult. Assessing the scale of rehabilitation assistance and designing appropriate rehabilitation measures to match individual household’s needs and requirements, as well as present skills of affected persons is important for improvement of affected persons’ income levels. However, in a growing economy such as in Lao PDR, often it is sufficient to create
opportunities for affected communities in the form of access to credits, finance, or the job market. Peoples’ resilience and economic growth itself enhances their income earning capacity and living standards.

Rehabilitation in Rural Context
The best method for restoring future income losses to affected farmers in a project would be providing agricultural extension services to increase potential productivity of the remaining land so that the AP will be in a position to produce improved, or at least the same level of income from the next season's harvest. In case of severely affected APs where entire land is affected by the project, the approach should be to provide land-for-land compensation with equivalent productive capacity coupled with additional assistance in the form of agricultural extension services in which cultivation techniques for new high-yielding varieties could be provided, assistance in the form of improved farming equipments and implements.

Where relocation does not permit continued agricultural activities or at the request of the APs, alternative rehabilitation assistance measure may be proposed that may include provision of training (plus training subsistence allowance) to a member of the severely affected agricultural family either in their current occupation to enhance their existing skills to be able to improve their productivity or training in a new occupation which could put them in a position to increase household income.

Mode of Economic Rehabilitation Assistance
The objective of economic rehabilitation is to provide assistance to affected households in the form that can equip the households with skills and opportunities for further improvement of his/her income level and sustainable livelihood. Cash assistance seldom meets these objectives and therefore, direct cash disbursement to APs is not an acceptable form of rehabilitation assistance. In operational terms, cash disbursements to some households may be accepted under special circumstances. For example, affected farmers may like to buy some farming inputs from the cash assistance. However, under such circumstances, adequate provisions must be made to ensure that the cash assistance is indeed used for the purpose it is provided. Specific conditions under which cash disbursements may be allowed include:

a) documentation of the consultative process is completed;

b) APs preferences and priorities are fully documented;

c) a verifiable procedure is established to ensure that the cash is disbursed against actual purchase of agricultural inputs. The procedure should include proper documents such as purchase receipts, bills etc.; and

d) project authorities, monitoring agencies and STEA is informed in advance of the cash disbursement and concurrence obtained.

Dovetailing into Government Programs
Resettlement in general and rehabilitation assistance measures should be seen as a instrument of development and change and coordinated with other development programs in the country, whether they are initiated and managed by the Government or funded by bilateral and multilateral agencies. Many of such programs have similar objectives and approaches. Efforts must be made to dovetail economic rehabilitation efforts in a project into ongoing programs, including poverty reduction programs. While it is preferable to aim for using government’s anti-poverty and other development programs for benefit of the project-affected communities, on the ground often this proves to be extremely difficult due to lack of coordination among different agencies. Where government officials are involved in implementing the resettlement component of a project, they may find it easier to involve local level government agencies to mobilize other government support than do non-government organizations and other private sector agencies. However, to ensure government support, it is imperative for NGOs to work in close contact with local administration to solicit the required help. Dovetailing government programs to resettlement efforts will not
work very well unless a detailed mechanism is worked out and kept in place to ensure those affected access to government programs.

9.4 Rehabilitation Strategies and Issues Arising

Income Generation Strategies
The selection of appropriate income generation strategy is the key in achieving its objectives. The selected strategy should match peoples’ needs, priorities, skill and educational level. It is imperative that project authorities go through an intensive consultation process with affected households on various options that are available and get their feedback. Project authorities should brief households on the benefits and limitations of various options and their long-term impacts on the household. The final selection of the strategy should be based on the ‘informed decision’ of the households. Selected income generation activities should enable a household an income sufficient to maintain the households at level at least comparable to pre-project levels.

Planning plays an important role in sustainability in income generation. Baseline information from both primary as well as secondary sources is vital. Skill upgrading, entrepreneurship development, and leadership training are essential for the project success. For most affected persons in rural areas, activities can be land-based and agro-based. Other trades feasible with low capital, low skill and low technology inputs may also be considered. For affected persons in urban areas, the choices are entrepreneurship, production, finance and marketing.

The income generation packages should also be based on a long-term assessment of skills required for the development of the region. Part of the RP, too will be an assessment of skills needed to participate in the Project’s construction activities and upgrade. This will be part of setting up a mechanism for project affected persons to obtain employment with construction contractors and to participate in business opportunities created by the project and in other project-related employment sectors. A matrix of suggested income restoration measures for different categories of APs is presented in Annex 9.1.

Define what constitutes sufficient income?
It needs to be determined by what is acceptable to the affected persons in the context of a changed market economy, raised expectations, limited resource base and opportunities. Projects must aim for commercially viable options with increased levels of productions, not just subsidized job creation. There is also a need to look beyond subsistence level economy. The expectations of the affected people for a quantum of income that is acceptable to them have often raised serious conflicts and complex situations between the affected community and the project managers. The key to success lies in analyzing the ground realities in each project and situation unique to the socio-economic and cultural dimensions of the project area. Further, the potentials of the NGOs and private sector organizations in promoting and sustaining the enterprises should also be analyzed. Where household income is used as the main indicator to assess success of rehabilitation strategy, specific targets for household incomes must be set in consultation with APs. For households below poverty level, the household income targets must be set to bring the household income above the national poverty line.

9.4.1 Income Restoration strategies in Rural Setting

Reassembling lost production systems for affected farming communities is a complex and difficult task that requires specialists from a diverse set of backgrounds and in order to work the full participation of the resettlers themselves not only in implementing schemes but in planning them as well.
The RP should provide a range of livelihood options. For resettlers from a reservoir area in dam project, the option of irrigated rice paddy would appear to be one most preferable. Additionally, forestry management may also be considered as an option for agricultural communities. Other livelihood options may include: aquaculture, dairy and fruit orchards, although these may require technical skills training in relatively new technologies and considerable advance planning and implementation. Fruit and nut trees, for instance those introduced by IFAD – macadamia, Japanese apricots, pears, grapes, and Japanese chestnuts – through planting of tree rootstocks in Xieng Khouang Province take a long time to grow, so must be planted well in advance of resettlement. Dairy cattle farms, using draw down grass is also an example of an option that Xieng Khouang International Farm Ltd., a private concern, has introduced in Xieng Khouang, where the company provides silage for cattle stock and is producing and selling milk. This also represents a new technology that must be prepared for well in advance.

Floating net aquaculture presents a potentially very valuable livelihood option in major hydropower projects. The option requires close advance coordination between fisheries experts and engineers in designing the reservoir management program, and the socio-cultural problems of transforming rice farmers into fishermen are daunting. However, this has been successfully done elsewhere, using participatory planning, and may be successful for the projects in Lao PDR where the feasibility can be demonstrated and if enough preparation is put into it. The first efforts should be toward a economic and technical feasibility study, assessing the new markets that should be available through upgrade of existing roads or construction of new ones to the project area. The technical aspects will address among other things the reservoir management regime, the morphometric characteristics of the reservoir itself, the sociocultural adaptability of the resettlers to this technical innovation, and provision of fish food, transport, and other tertiary services that will be required. Because of this necessary advanced planning, more time and resources may be devoted to this livelihood package than the other ones. The purpose of advance planning is to demonstrate that resettlement has been planned as an economic development exercise within the framework of the region’s growth potentialities.

Funding for economic rehabilitation package should be built-in the project. If advance planning and feasibility studies are conducted convincingly, some of the more ambitious livelihood packages may attract international financing as economic development schemes in their own right. A local development fund, within the context of watershed management should also be looked into. In major hydropower projects, a small percentage of project’s revenue can have very significant effects for local development. While each of the above livelihood packages will be for project affected persons, the development opportunities the project is expected to bring to the region should be availed by the broader population within the project Area as well.

9.4.2 Income Restoration in Non-Agricultural Sector

The crucial question is the provision of jobs to those affected in non-agriculture sector. Income restoration under such circumstances may pose a great challenge as land is not available thus ‘regular jobs’ become the most desirable option. Job opportunities, though limited, are available only in some sectors of economy including
construction and infrastructure projects. There is no second opinion to the fact that most projects cannot assure guaranteed income to everyone it displaces and this poses the greatest challenge. Providing training can be an option. Income restoration must be sustainable and not just a subsidized activity, so both the training selected and the training delivered must be suited to reality, not ideal or academic.

In projects that open up employment to the local population, regular jobs in the project emerge as the option most often preferred. But the job-based options have created socio-economic disparities within the affected community as well as the affected family. Sometimes the job opportunities in a project result in family disintegration, leaving the dependants (including aged parents) to fend themselves, creating considerable social tension among the younger siblings. Further, the job opportunities offered in a project are at best short-term measures and may only last until the project completion. Participating households must be fully aware of this fact and prepared for other sources of incomes when the project comes to end. The project authorities should, on the other hand, must strive to provide more sustainable job opportunities to project affected persons rather than depending solely on the project based jobs. At the policy level, employment in the project may be considered as an additional benefit rather than an entitlement. But this does not belittle the importance of training the affected persons for promoting self-employment for their economic rehabilitation.

**Problems and Approaches**

One of the major problems in implementing income generation programs is the attitude of affected persons that could become a real obstacle in the implementation of economic rehabilitation measures. The lack of funds, guidelines and planning are the other areas of concern. Most organizations tend to treat resettlement (including income restoration) as a necessary evil and there are no norms or necessary guidelines to implement resettlement programs. Dovetailing rehabilitation assistance strategies into government programs can prove to be difficult but better mechanism are needed to assure affected persons access them, since projects can not duplicate existing programs without wasting resources.

The types of approaches required to promote income generation schemes include the following:

- Change the mind set of the affected persons through awareness program and sharing information and experiences
- Activities for the industry, services and business sectors must be assessed
- Identify proper income generation scheme specific to each affected person with adequate scale of economy and low risk
- Assess existing situations to identify gaps, if any, in technical, financial and other aspects of the identified scheme
- Avoid uncertainty on dovetailing government programs
- Ensure forward and backward linkages for the success of the schemes
- Gradual progression is necessary so that large expectations do not burden the people.

9.4.3 **Entrepreneur Development Training**

Provision of training for skill upgrading is an important and one of the most successful measures for income generation that can be provided to APs. However, most project authorities tend to consider training as the only option for income restoration. Provision of training alone does not automatically leads to gainful employment and enhancement of household incomes.

Capacity building for technology transfer as well as for acquiring management skills remains one of the most important factors in determining the success of a new income generating
enterprise. In some cases and where resources permit project specific training-cum-production centers may be established. Such centers may emerge as the most convenient approach to transfer the required skill on a long-term basis.

**Training for jobs in project**

Training people to do jobs that a project creates may present many complications especially when all those trained cannot be gainfully employed leading to protests over those given preference for jobs. Trainees may feel it their right to get the job after the training is completed. On the other hand, if only the required number of people is trained then there is no guarantee that all of them will complete it successfully and the project schedule may get delayed for lack of adequate number of people. Training for project must be carefully scheduled and coordinated.

One of the important aspects of planning and implementing income generation activities is the type of scheme and size of operation. Most often the affected persons need to know whether the future income earned from the training provided will be enough for them to relinquish other options – like allotment of land, provision of jobs. Training plans are required which estimate realistic income potential for each training module offered.

**Consultation and Participation**

The affected community's right to information is one of the most crucial issues which plays a key role in initiating informed participation. Effective modes of communication and information dissemination must be used to ensure maximum participation by APs. The efficacy of involving the affected community in decision-making and plans must be considered on case-to-case basis. While working on resettlement, one needs to understand the ‘social contract’ that comes into being between the project proponents and the affected persons and often that gets vitiated by vested interests. To get over this problem and to ensure transparency, the emphasis should be placed on working with women in the displaced community as they are more receptive. Experiences indicate that when women are organized on some economic activity, they feel empowered, take active role in the household decisions and compel their male counterparts to concentrate on productive activities than playing in the hands of the vested interests.

**9.4.4 Micro-credit**

Micro-credit to rural and urban poverty groups has shown significant results in increasing households’ independence. Micro-credit, or small loans that are given without collateral can often be enough to rescue a family from starvation and lifetime of indebtedness. Experience in several developing countries has shown that small loans given to women brings in financial independence and provided opportunities to set up small businesses for bringing in sustainable incomes.

**9.5 Institutional requirements**

Institutional strengthening in line ministries and other project proponents to plan and implement income restoration activities requires considerable attention. There is a need to build in matured sociological guidance and expert opinion to gain insight into social conflicts and issues affecting smooth execution of income restoration programs. The placement of Sociologists within the institutional framework helps in building contacts and to initiate planning and capacity building among those in-charge for the planning and execution of the economic rehabilitation of affected population. Accountability, in terms of results (like number of affected
persons trained and establishing economic units, level of income obtained, sustainability of the scheme, etc.), should be fixed to achieve desired results.

9.6 Role of NGOs and Private Sector

NGOs and private sector have been and can play significant role in planning and execution of rehabilitation activities in development projects. However, their role and responsibilities must be carefully planned to ensure that their inputs are provided in a timely fashion in accordance with implementation schedule. The scope of inputs provided by NGOs and private sector must be tied to achieving the desired results. Where NGOs and/or private sector institutions are contracted to carry out certain income restoration activities, their work must begin with a time-bound strategy for withdrawal upon achieving the set targets. However, it must be ensured that sustainability is designed into the project so that once the NGO/private sector institution withdraws there is no vacuum and the gradual thinning out support and help to the affected persons is a better propositioned and at the same time ensure that the dependency syndrome does not build up among them.

Technical skills training can be offered through cooperation with international NGOs, such as World Vision’s participation in the Huay Ho HEP resettlement. The use of NGOs with well-established skills in rural development, or consultants with similar backgrounds, cannot be emphasized too strongly. NGOs involved in public consultation, with its regular workshops and scheduled meetings, need to broaden concept than mere ‘public relations’ for the Project. It needs also to be incorporated into the income generation program as a day-to-day consultation with villagers about which income restoration packages make sense to them and a collaboration with them in implementing these.

9.7 Methodology and Steps in Planning for Rehabilitation Assistance

Planning for rehabilitation assistance to APs severely affected in a project requires a specific set of activities. These are specified as follows:

a. The project proponents should at the outset conduct detailed investigations and research to prepare for planning of rehabilitation and obtain following information:
   - list of institutes and training centers with the types of training available, cost, duration etc.
   - information on income generation programs that are ongoing in the country
   - discussion with relevant authorities in-charge of ongoing income generating and other program aimed at poverty reduction to identify opportunities and mechanisms for dovetailing rehabilitation assistance measures in development projects with these programs
   - discuss and consult relevant government ministries and departments on the types of rehabilitation assistance that can be provided within the established institutional framework such as: extension services provided by agricultural departments in various provinces
   - collect information from training institutions, public and private, on the types of training offered, duration and cost.

b. Based on the above information, prepare a list of the types of rehabilitation assistance that can be made available to the APs by district.

c. Based on the analysis of data collected during census, inventory and socio-economic surveys, a list of APs entitled to rehabilitation assistance should be prepared as the first step. This list should be prepared by commune and districts and should have details for each APs such as: occupation, household size, educational background etc.
d. Based on the information in item ‘a’ and ‘b’ above conduct extensive consultation with each of the AP entitled to rehabilitation assistance to establish their needs and priorities and recording the type of rehabilitation assistance preferred. Where the preference is shown for a particular type of training, the list should indicate what type of training, for how long and where.

e. Prepare a proposal providing above information with indicative cost and implementation schedule. The list and proposal should be finalized in consultation with APs and respective institutions, agencies and government departments.

Once finalized and necessary resources secured, the proposal would be ready for implementation.
Annex to Chapter 9
## Annex 9.1: Categories of APs and Income Restoration Measures

<table>
<thead>
<tr>
<th>No.</th>
<th>APs with Different Compensation Package</th>
<th>Impact on Income</th>
<th>Income Restoration Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Landed farmers with land allotments of the same quality in the same locality where access to services and market remain unchanged</td>
<td>• Temporary disturbance in production</td>
<td>• Maintenance allowance during transition period</td>
</tr>
<tr>
<td>02.</td>
<td>Landed farmers with land allotments of different quality in the same locality where access to services and market remain unchanged</td>
<td>• Disruption of farming pattern</td>
<td>• Technical Training for new mode of production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Possible failure without experience/techniques required</td>
<td>• Development cost of the new land</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Subsistence until the new land reaches productivity</td>
</tr>
<tr>
<td>03.</td>
<td>Landed farmers with land allotments of the same quality in different locality where services and markets have changed</td>
<td>• Disruption of farming</td>
<td>• Necessary support services and economic infrastructure (financial, communication and market)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Change in support services and market situation</td>
<td>• Maintenance allowance</td>
</tr>
<tr>
<td>04.</td>
<td>Landed farmers with land allotments of different quality in different locality where services and market situation have changed</td>
<td>• Disruption of farming pattern</td>
<td>• Technical training for new mode of production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Change in support services and market situation</td>
<td>• All previous extension and financial services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Possible failure without experience/techniques required</td>
<td>• Maintenance allowance</td>
</tr>
<tr>
<td>05.</td>
<td>Landed farmers with cash package</td>
<td>• Loss of sustainable productive assets</td>
<td>• Maintenance allowance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Loss of income sources</td>
<td>• Income generation activity identified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Possible misuse of cash compensation</td>
<td>• Training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Possible failure of schemes for income generation</td>
<td>• Extension services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Financial services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Market analysis</td>
</tr>
<tr>
<td>No.</td>
<td>APs with Different Compensation Package</td>
<td>Impact on Income</td>
<td>Income Restoration Activities</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------</td>
<td>-----------------</td>
<td>-------------------------------</td>
</tr>
</tbody>
</table>
| 06. | Landed farmers provided jobs           | • Job insecurity  
• Possible failure due to no knowledge or technique required | • Employment guarantee for three years  
• Training |
| 07. | Landless agriculturist seriously affected due to displacement of the community | • Loss of income  
• Loss of livelihood | • Minimum economic holding of land or a cash package sufficient for purchasing economic holding  
• Technical training  
• All previous extension and financial services  
• Any new necessary services  
• Maintenance allowance |
| 08. | Landless tenants affected through marginal land acquisition | • Contract termination  
• Loss of income | • Minimum economic holding or a cash package sufficient for purchasing economic holding  
• Other rehabilitation assistance  
• Maintenance allowance |
| 09. | Other landless agriculturist affected through marginal land acquisition | • Loss of job opportunity  
• Loss of income | • Maintenance allowance |
| 10. | Employees in affected enterprises that can resume the same line of operation | • Possibility of greater distance to work  
• Relocation cost | • Satisfactory relocation of enterprises  
• All relocation costs  
• Continued employment |
CHAPTER 10: Relocation and ‘Land-for-Land’ Issues

10.1 General Approaches for Relocation

Relocation of displaced APs in a project is a challenging task. The initial social assessment and the data collected during the census, inventory preparation and socioeconomic surveys for preparation of RPs provide ample basis on the need for resettlement. Based on those reports and consultation with the APs, the project should decide on the type, need and scale of resettlement. Once the need for resettlement is deemed necessary, the options and alternative sites should be developed through a consultative process. During this consultation process the ongoing programs of the government and NGOs at the local and national level should be reviewed and if there are possibilities to work together it must be explored. Otherwise there may be a duplication of efforts.

Relocation efforts generally involve the following four approaches depending upon the requirements in a project:

a. Providing replacement agricultural land. In projects where only agricultural land is affected and APs are generally dispersed over the length of the project, provision of replacement agricultural land should be made. The replacement land can be dispersed or provided at one location depending upon availability and preferences of APs.

b. Provision of replacement agriculture land together with rural settlement consisting of homestead plots and other facilities for resettlement of affected communities. In projects where rural agricultural communities are affected, project is required to make provisions for resettlement of affected communities including provision of replacement agricultural land as well as homestead land with fully developed plots, internal roads, access to market and public facilities and services. Depending upon the impacts and requirements in a project, the resettlement areas may also require provision of other facilities such as: grazing land for cattle, access to forest resources, land for tree crops, etc.

c. Provision of fully developed residential or commercial land together with public facilities and services to resettle affected APs as a group. In projects with impacts upon residential land, with or without structures, project is required to make provision for replacement residential or commercial land, as the case may be, for resettlement of affected communities as a group. The resettlement sites should be provided with good access to markets, and public facilities and services. Where possible, resettlement sites should be provided with opportunities for income generation activities.

d. Provision of residential or commercial plots to individual APs in existing development or markets. Where in projects APs are dispersed such that they do not form a community requiring them to resettle as a group, and depending upon preference of APs, replacement residential or commercial plots and shop space can be provided to individual APs in existing residential areas and markets as the case may be.

10.2 Criteria for Relocation and Provision of Replacement Land
Criteria for provision of replacement agricultural, residential or commercial land and for resettlement of affected communities in rural or urban setting will vary depending upon the project requirements and APs' preferences. General criteria and specific issues pertaining to provision of replacement agricultural, residential and commercial land are summarized below:

10.2.1 General Criteria

Some general principles and criteria for relocation are summarized below:

- In cases where resettlement need is considerable, as far as possible the chosen relocation site should have similar environmental conditions as the existing ones. People used to upland areas with dependence on forest resources or shifting cultivation practices may find it difficult to adopt to lowland areas that need different agricultural skills or in semi-urban environment alien to them. Environmental risks associated with the relocation sites and how they will be managed and monitored should be clearly discussed with the affected persons.

- Before relocation the APs should be consulted about options and the relocation sites and the facilities they are entitled to. The APs should be fully informed of the location sites and where possible, they should be provided opportunity to visit alternative sites before final site selection. To ensure that decision by APs are taken based upon ‘informed choices’ it is a good practice to establish a pilot resettlement site to demonstrate what the APs may expect in terms of facilities and livelihood options.

- The host communities are equally important and should be consulted as well. Furthermore, the host communities should not be deprived of basic services provided to the resettled households and there should be measures for planned integration of affected households with the host communities.

- In the process of relocation, gender issues, needs of female-headed households, and the issue of vulnerable groups should be paid particular attention. Preferable sites and/or locations may be given to these vulnerable groups, especially those offer opportunities for income generation.

10.2.2 Criteria for Replacement Agriculture Land

Criteria for provision of replacement agricultural land and relocation are summarized below:

- Land for land is considered to be the most desirable option for compensating the private and community land acquired for the development projects. In countries characterized by subsistence farming, arable land is the most important resource on which the livelihood of majority of people depends upon. Therefore, every effort should be made by project authorities to make provision for suitable replacement agricultural land with equivalent productive capacity and at locations acceptable to APs.

- One of the criteria of land-for-land compensation for affected agricultural land is the equivalent productive potential of replacement land. In the context of scarcity of arable land providing equivalent land may be difficult. In this situation the project proponent should seriously look into options for developing new lands and/or improve quality of old land through irrigation facilities and the like. This will help restore the socio-
economic status of APs without changing their customary ways and means of earning livelihood.

- In rural environment, most APs would be expected to opt for suitable replacement agricultural land provided the replacement land is located in the vicinity of affected land. In case the location of replacement land is away from existing homesteads, it will add to additional travel costs and efforts on farmers to maintain such land. Where suitable land at locations acceptable to APs is not available, and at ‘informed choice’ of APs, compensation in cash may be paid. In some cases, households may prefer compensation payment in cash due to a variety of reasons including likely delay in site selection, bureaucratic inefficiencies, nature of land offered, distance and location including environment. In any case, the final decision on the mode of compensation: cash or in kind, should rest with APs. However, project authorities, local NGOs and representatives of mass organizations must provide adequate counseling to such APs to ensure that cash amounts are used for asset building and are not wasted.

- When number of families to be relocated is small efforts should be made for on-site relocation so that their social and cultural linkages with the community are not severed. However, if APs opt for individual or self-relocation, the project should assist them rather than forcing them to accept the site selected by the project for relocation.

- Although land-based resettlement programs work better than non-land options, in some cases it may not be possible to find replacement land of reasonable quality for agriculture especially in situations where the cultivable land is in short supply and the density of population is quite high. In such situations skill-upgrading training schemes, income generating schemes and agriculture intensification programs may be suitable options.

- If affected people lose unregulated resources thus far such as forestlands or grazing lands or waterways, they should be provided with replacements in kind. This involves land for land compensation.

10.2.3 Criteria for Replacement Residential Land

Key criteria for relocation and provision of replacement residential land include the following:

- The resettlement site development should be considered as an integral part of the project. The plot size for house construction should be based on earlier homestead size. Homestead plots should be of adequate sizes to provide sufficient space for storage of agricultural products, kitchen garden, and space to keep domestic animals.

- Where possible, APs should be allowed the option to build their own house structure rather than supplied with pre-built shelters. This will promote self-reliance and ownership of resettlement efforts.

- Location and quality of the new relocation sites are critical factors for relocation. Each possible site has its constraints and opportunities. The replacement residential land must have environmental, social, cultural and economic characteristics similar to the previous site. The APs and their hosts should be allowed to participate in decisions concerning site selection, layout and design and site development.
• Resettlement sites should be selected carefully to provide good access to markets and income-earning opportunities. This is more critical in urban environment where the cost of travel to markets and public facilities can be very high.

10.3 General Criteria for Relocation for Housing and Shops

People displaced due to the project activities and needing relocation may choose some of the specified relocation options. They should be entitled to a number of support provisions. However, it may not be economically viable to develop a resettlement site when the number of APs asking for relocation is very small. There should be a threshold size of APs in order to develop resettlement site and it should be a community. Scattered households totaling a minimum threshold may not automatically qualify for this. A minimum of 20 APs of a community facing significant impact (i.e., losing residence and/or large proportion of productive land) of the project could be considered as a threshold in urban setting. This is because the cost of provision of utilities and public facilities including water supply, access and internal roads and sanitation facilities become economically unviable for smaller communities, unless such facilities are available on-site. Table below itemizes the types of relocation options and the necessary support provisions for each of them.

<table>
<thead>
<tr>
<th>Relocation Options</th>
<th>Compensation</th>
<th>Transport Allowance</th>
<th>Displacement Allowance</th>
<th>Site Planning and Development</th>
<th>Assistance to Host Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Relocation</td>
<td>Yes</td>
<td>Not needed</td>
<td>Not needed</td>
<td>Not needed</td>
<td>Not needed</td>
</tr>
<tr>
<td>On-site Relocation</td>
<td>Yes (if assets are lost)</td>
<td>Not needed</td>
<td>Yes (minor)</td>
<td>Not needed</td>
<td>Not needed</td>
</tr>
<tr>
<td>Self-relocation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Not needed</td>
<td>Not needed</td>
</tr>
<tr>
<td>Relocation to Site Selected by Project</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

When relocation from their homes is unavoidable as far as possible the alignments for various components should be designed to minimize displacement. Households will also attempt to minimize their own stress and hardships by relocating on remaining land when possible. Some of them will also find their own relocation site. In addition, some APs who lose their houses may have sufficient remaining land where they can rebuild their houses with the compensation amount paid to them: on-site relocation or reorganization.

10.4 General Principles and Procedures in Resettlement Planning

Where sufficient number of APs are severely affected and are to be resettled as a community or as a group suitable resettlement site for their relocation needs to be identified. All those steps including inventory and census survey of affected people has to be followed as in a normal project cycle. If a project requires resettlement, it must be emphasized that no construction works of the project should begin without first relocating affected persons to resettlement sites. In addition, the project should pay particular attention to safeguarding income and livelihoods of the displaced household members.
**Selection of APs**
The entitlement of APs for relocation to resettlement sites should be carefully determined. APs with second dwelling or existing family members in the vicinity generally tend to leave the allocated sites vacant either for speculation purposes or for construction at a later date. In either case the objectives of relocating APs to better environment are not achieved in the project. APs with second dwelling may in such cases be offered cash option for lost assets.

10.4.1 Site Selection

Resettlement sites should be selected very carefully to minimize the number of secondary APs and the cost of land development. Proposed resettlement sites should, as far as possible, be located close to the existing access roads and infrastructure facilities, and should possess opportunities for business activities. Location should be acceptable to the APs.

Where possible, the sites selected for relocation should be geographically closer to the original homes. Relocation sites should be carefully selected in order to reestablish the socioeconomic condition and cultural practices of APs. Two main stages are notable during site selection. These include:

1. Site selection and alternatives where the proponent look for various possible sites and compare the positive and negative aspects of each of them;

2. Site selection should be carried out carefully to assess land capability, especially where provisions are made for homestead plots and agricultural areas. Specific studies that would be necessary to determine suitability of site for relocation of affected communities would include:

   - Topographic studies
   - Soil Studies
   - Land capability
   - Hydrological studies for water availability for domestic as well as for agricultural use

   Additionally, social surveys of population in the vicinity should be conducted to ensure that resettlement site is acceptable and does not encroach upon any other claims by the host population. Due recognition should be given to any territorial claims by ethnic groups

3. Feasibility studies: conduct feasibility studies of alternative sites and consider the site that has similar overall environmental conditions and is closer to the project area. It must be ensured that the site development will not cause any environmental hazard or pollution in the vicinity and any adverse social or environmental impacts to host communities. The Once the feasibility study is complete and a decision to the possible relocation site is made further activities related to the host area should be developed in consultation with the hosts.

10.4.2 Standards for Replacement Land

The zoning laws and minimum land holding sizes vary with location and would need to be determined for each project. Prevailing standards in some urban areas include a minimum residential plot size, minimum built-up area for dwellings or other types of accommodation. These standards should be used to determine suitability of remaining land for continued use as well as for allocation of suitable size plots at replacement land.
Affected residential land may vary in shape and sizes. But the allotted plots at resettlement sites cannot possibly be of same areas. Planning standards require all plots at resettlement sites to be of standard sizes. Therefore, if the allotted plot is bigger that the affected area, generally no additional payment from APs are required. However, if the allotted plot is of smaller size than the affected land, APs would be entitled to cash compensation at replacement cost for the balance of the area.

In rural settings the areas for agriculture plot and homestead should be based on land capability & productivity, and sufficient spaces required for house, storage and keeping animals. The studies carried out under the transmigration projects in Indonesia determined the minimum area to support a rural household of 4-5 members include a houselot of 0.25 ha; agriculture plot for dryland farm 1.00-1.25 ha, wetland farm 0.75ha, and for tree/cash crops at 1.75ha.

**Administrative Cost for Replacement Land**

All costs incurred in allocation of replacement land including taxes, registration fee, surveys, fee for issuance of land use right certificates should be estimated during the resettlement planning and should be borne by the projects.

10.4.3 **Types and Standards for Facilities**

The development of types and standards for facilities must be integrated with the project cycle so that APs will face minimum disruption to their lives. All relocation must be complete at least one month before the commencement of civil works.

Resettlement site development is the final phase of site selection and development. For this the plot size should be based on earlier homestead size of APs. In addition the needs at the new sites should also be an important criteria to determine the plot size to be allocated in case the original plot size was too small. There should be flexibility in house construction and APs should be allowed to build their own houses rather than the project forcing to apply pre-built shelters.

The provision of facilities should ensure that basic environmental and hygienic requirements are met. Alternative level of facilities should be considered to ensure that these are comparable to those provided in other residential areas in the vicinity of RS. Where possible, community participation in the provision of facilities should be encouraged. Prior to the finalization of the sites, field investigations should be conducted to ensure technical feasibility of basic utilities. Various alternatives on the level and the types of facilities should be considered:

- Water: shallow wells, deep wells, piped water.
- Sanitation: Community septic tanks vs. individual septic tanks.
- Surface drainage vs. underground facility

Depending upon the scale of resettlement the public health facilities, elementary schools, community buildings and other cultural structures should be established.

**Site Planning**

The layout and design should conform to the cultural practices of APs. Issues such as how the households, neighbors and relatives are linked to each other at the project area and how often and who uses the various facilities and infrastructures are important to understand since such an information can be very helpful in designing the relocation site development. Inputs from the community will greatly help proper designing and layout.
Plot sizes should be regular and fewer categories to facilitate site planning. Site planning should minimize wastage of land and should be in accordance with the prevailing planning standards. In case the coordination with adjoining areas is required, the road widths should be based on shared allocation of space. The planning standards should be compatible to those applied in other areas in the vicinity.

The site plans should make provisions for population increase. Specific areas should be reserved for future population increase and large households should be given bigger plots for anticipated household size increase. Some specific measures should also be taken for strict zoning regulations to control growth and to restrict population influx into the area.

The traditional cultural and household activities of women should be given serious consideration during site planning. Adequate spaces should be provided for activities that are normally carried out by women in and around the house: kitchen gardening and livestock husbandry. Care should be taken to ensure that women also receive benefits from resettlement activities.

10.4.4 Specific Issues and Measures in Resettlement Planning

Environmental Protection and Management
To safeguard the interests of the resettlers and host community, necessary measures for environment protections and management need to be included in the RP. Environmental planning should be integrated into the project design. Required measures for environmental protection will of course depend upon the location and the type of projects, but these are more critical in hydropower and water resources projects. In such projects the measures may include:

- Plans for managing the forest areas to ensure sustainability including forests in the catchment of reservoir areas, community forests as well as productive forests;
- Plans for sustainable use of grazing areas to make sure that the carrying capacity of the land does not exceed the number of cattle in the settlement;
- Measures to protect fishing rights of local communities and measures to ensure ecological balance of fishing stock is maintained and new or existing livelihood is not affected;
- Flora and fauna is preserved and hunting if necessary is carried out only within designated areas;
- Adequate measures are taken to protect soil erosion from civil works in the project.

Further, adequate measures should be taken for environmental protection at the resettlement site and its vicinity.

Education, Institutional Strengthening and Capacity Building
Relocation of communities in major projects may require opening up hitherto undeveloped or forest land for setting up new villages. Shifting to new location may also disrupt education system and schooling of children. Attention needs to be paid to establish new schools or to

increase the capacity of existing schools in the vicinity of resettlement sites. Specific measures that are necessary for institutional strengthening and capacity building include the following:
• Upgrading of existing educational institutions for resettlers and host community, including better buildings, supplies and educational material, and ensuring that adequate number of teachers are available and that they are adequately compensated;
• Focus on adult education in order to improve the general standard of education and their ability to read and to cope with the economic and social change;
• Skills training in advance of construction work on resettlement site so that local population may benefit directly from employment opportunities – this will also reduce the risk of large influx of outside labor and workers and related negative impacts;
• Training in improved farming practices as part of livelihood improvement package;
• Support for local organizations with clear definitions of roles and responsibilities – information and training workshops will be needed to ensure understanding of what is required;
• Formation of resettlement committees to act as liaison between local authorities, project proponents and APs;
• Formation of special associations to cope with specific aspects of resettlement planning and rehabilitation implementation programs such as: village forest association, water users’ association, fishermen association, etc.;
• Integration of NGOs and community based organizations as facilitators for training and capacity building.

Health issues
Relocation of communities at new locations often exposes them to a new set of environmental conditions that may cause emergence of new diseases affecting their health. It is important that baseline data on health be collected during the preparation of RPs and conducting SA. Secondly, potential impacts of construction activities and land clearing for resettlement should be studied carefully. Third important step in addressing health issues of relocated APs is to formulate mitigation measures to offset, reduce or eliminate adverse impacts and enhancing benefits to local population. It is also necessary to monitor health conditions on long-term basis using baseline data for evaluation purposes.

10.4.5 Procedures in Planning for Resettlement Sites

The following procedures and activities should be used in the selection of resettlement sites, planning and their development.

1. Prepare the list of APs entitled to relocation;
2. Select alternative sites and consult APs on the preferred location;
3. Document their choices for ‘group’ or ‘self’ relocation;
4. Finalize RS and carry-out field investigations to ensure availability of basic facilities;
5. Determine the types and level of facilities and inform APs;
6. Prepare site-plans and cost estimates for site development;

10.5 Public Participation in Relocation Activities

Consultation with and participation of APs should be ensured throughout the planning and development of resettlement sites. This participation not only helps smooth implementation but also it protects the future of development itself.

Extensive public participation and consultation is necessary to determine APs choices on RS location, options on self and group relocation, and implementation schedule. APs choices
should be documented and reconfirmed prior to the implementation. To ensure that APs are willing to occupy allocated plots in a reasonable time, a written undertaking from all APs should be obtained to the effect that the entitlements to the plots will be relinquished if they fail to begin construction within three months after the plot allocation. The allocation of plots should begin immediately after basic utilities: access, water and sanitation facilities, are provided.

**Consultation with Host Population**

Where relocation involves host population, the interest of host population should also be given due consideration. The integration of APs with host community is not easy and many members of the host communities may have reservations to gladly accept the guests. Special attention should be paid to the hosts while developing basic facilities so that the hosts do not feel ignored by the project benefits. Employment, use of common property resources, and pressure on natural resources are potential conflict areas between host population and the APs. The host should also have access to training; employment and other benefits meant for seriously project affected persons so that they do not feel discriminated by the project. This will greatly help in harmonizing resettled communities with the host community.
CHAPTER 11: Public Participation & Consultation

11.1 Rationale for Community Participation

Participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. The decision to participate is the start of the whole participatory process in the project cycle.

The Resettlement Policy, Decree and Implementation Regulations provide clear guidance and direction to project proponents in both the public and private sectors, on the need for public consultation and participation and underscore the importance of getting APs informed about the project and, more importantly, getting their actual and active involvement in the planning and implementation.

11.2 Consultation and Participation as a Structured Process

Participation is an active and continuous process of interaction among the key stakeholders, including the communities directly affected (whether positively or adversely), national agencies and line ministries, the project consultants, civil society and international donor agencies. Participation as a generic term usually encompasses two distinct dimensions: information exchange (i.e., dissemination and consultation) and varying forms of joint decision-making (i.e., collaboration or participation):

Dissemination refers to the transfer of information from project officials to the affected population. Providing early and accurate information to APs allays fears, dispels misconceptions and builds trust, thus providing the foundation for collaboration between PAP and project authorities. Information dissemination takes place in all stages of the project cycle, implying a continuous feedback process through which the communities learn about potential activities in the area, and the project team learns about community dynamics.

Consultation refers to joint discussion between project officials and the affected population, serving as the conduit for the transfer of information from the latter to the former. Systematic consultation also implies sharing of ideas. Discussions help in better understanding of issues and in integrating “popular wisdom” with technical know-how.

Though collaboration and participation are often used interchangeably, collaboration refers more narrowly to mechanisms for joint decision-making (e.g., committees, and tribunals), whereas participation includes more broadly the transfer of decision-making power to those affected (e.g., providing options). Participation, in this sense, represents a step by which APs assume responsibility over their lives. ‘Responsibility’ is the end-objective of the participatory process. This is where the project team and the communities make a commitment to work for the project.

11.3 Objectives of Public Information and Consultation

Information dissemination to, consultation with, and participation of, affected people and involved agencies reduce the potential for conflicts, minimize the risk of project delays, and enable the project proponent to address important community issues such as: environmental nuisances and risks to local resources; willingness to pay; and resettlement and rehabilitation. This allows the project to maximize its social, economic and environmental benefits.
Specific objectives include be:

1. To share fully the information about the proposed project, its components, activities and associated environmental impact, with affected people.
2. To obtain information about the needs and priorities of the affected people, as well as information about their reactions to proposed policies and activities.
3. To provide information on the various options for relocation and rehabilitation measures available.
4. To obtain the cooperation and participation of the affected people and communities in activities required to be undertaken for resettlement planning and implementation.
5. To ensure transparency in all activities related to environmentally-related operational procedures, land acquisition, resettlement and rehabilitation.

11.4 The Importance of Consultation and Participation in Resettlement

Experience shows that mechanistic or paternalistic plans may at times be appropriate in protecting people from immediate impoverishment. However, such plans are not likely to be appropriate in accelerating the dynamic transition to renewed productivity and restored living standards. Participation is important because the success of resettlement depends to a great extent on the responsiveness of those affected for the following reasons:

- Participation of affected persons is essential in understanding their priorities and needs and formulating resettlement options that balance their needs and capabilities, and in capitalizing upon existing human resources including the modes of social organization.
- Participation helps to identify the wide variety of impacts that acquisition of assets and displacement may generate in a project, and the people likely to be vulnerable to these impacts.
- Participation helps to verify empirical facts and to make delivery of entitlements and services more transparent.
- Participation is essential in reaching consensus on issues not subject to technical solutions - e.g., negotiated valuation standards in the absence of markets, acceptability of substitute sites or other assets, bases for social integration of those displaced into host communities, and legitimization of the project itself.
- Active participation by APs (i.e., project-affected persons) in decisions affecting their lives helps to diminish risk aversion and perception of acute vulnerability, thereby reducing dependency or mal-adaptation to new surroundings.
- Participation engenders commitment or ownership, increasing the likelihood that resettlement resources and programs will operate satisfactorily in a sustainable manner.

11.5 Limitations of Consultation and Public Participation

This section provides operational guidance for realizing the potential of participatory processes in resettlement planning and implementation. However, it also identifies some of the limitations
of participation, and confronts some issues likely to accompany participatory approaches in resettlement. These are summarized as follows:

- Participatory processes can be time-intensive, expensive, and logistically cumbersome.
- Due to inherent qualitative nature of participation, there is a need to ensure that the participation is not ritualistic and is carried out in right earnest.
- Participation ultimately involves decision-making and responsibility for decisions. However, the project processes may be affected if the APs fail to participate according to plans.
- Participation is frequently constrained by issues of representation. It is difficult to establish who can legitimately represent others. There is always a risk in a project of people with vested interests claiming to be representing the APs. In many instances, these 'representatives' may not actually have any stake in the project.
- Any attempt by civil society to promote collaborative decision-making in a project may be seen as political interference by project authorities, sometimes tugging against such attempts to spur greater ownership or commitment to projects.

Despite these limitations, however, experience suggests that participatory approaches are vital to the success of resettlement. However, it is essential to take note of the following:

- It may be essential to undertake some project-related activities and agenda-setting functions before inviting public involvement. Potential projects must be identified beforehand, usually with an initial emphasis upon technical criteria. However, some degree of confidential feasibility assessment of plans is warranted, especially if disclosure is likely to provoke unrest or high level of uncertainty long before necessary.
- In some projects, steps may be required (including establishing cut-off date, video documentation, site selection and census taking) to prevent land speculation, in-migration, or various forms of rent seeking.
- It is equally important to emphasize that participation cannot be entirely structured, thoroughly planned, or politically stage-managed. It has often been proven erroneous to assume that people could not or would not find alternatives if denied formal channels for participation. Furthermore, even otherwise proficient project plans may fall victim to delays, overruns, or outright cancellation when the venue for participation shifts to the courts or the streets.
- It is often useful to identify stakeholders in a project and, while the access to participation is not denied to all, the focus can be placed on the key stakeholders in their participation and collaboration in the project process.
- The structure of participation influences the quality of participation. Thus, project agencies must be encouraged to devise dissemination, consultation, and participation approaches that are appropriate to the local cultural and political context.

11.6 Public Participation in Project Cycle
Public participation, consultation and information dissemination in a project begins with Initial Social assessment activities during the initial phases of project preparation. Public consultation activities and information dissemination to APs and local authorities continues as the project preparation activities proceed in a project. Through respective local governments and civil society, APs are regularly provided with information on the project and the resettlement process prior to and during the RP preparation and implementation stage.

Project proponents are required to ensure that local authorities as well as representatives of APs are included in the implementation and decision making process. The project authorities are also required to continue the dialogue with local officials and representatives of the APs during the project implementation process. APs’ participation should also be ensured during final assessment of compensation, resettlement and monitoring. It must be noted that, in practice, the stages of participation often overlap, coming together at different times in project preparation and implementation. It is also important to remember that the specific form, sequence, and content of participatory processes vary significantly by project, and by a myriad of local environmental and social factors. Accordingly, the time and funding required for participatory resettlement processes also vary substantially. Specific public participation and consultation activities that should take place in the project cycle are summarized in Annex 11.1.
Annex to Chapter 11
## Annex 11.1: Public Consultation and Participation in Project Cycle

<table>
<thead>
<tr>
<th>Activity 1. Meeting between project proponent and relevant local government entities to:</th>
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<tbody>
<tr>
<td>- Discuss the general concept of the sub-project</td>
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<tr>
<td>- Discuss/explain the requirements of the sub-project and its likely social and environmental impacts.</td>
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<tr>
<td>- Present tentative schedule of activities.</td>
</tr>
<tr>
<td>- Create awareness and appreciation among the local government units about the sub-project.</td>
</tr>
<tr>
<td>- Identify key stakeholders.</td>
</tr>
<tr>
<td>- Set an agenda for general orientation meeting with key stakeholders at local level.</td>
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<table>
<thead>
<tr>
<th>Activity 2. Public meeting with the community &amp; key stakeholders to:</th>
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<tbody>
<tr>
<td>- Provide overview of the sub-project, including overall objectives.</td>
</tr>
<tr>
<td>- Inform stakeholders of likely social and environmental benefits and impacts of the sub-project</td>
</tr>
<tr>
<td>- Provide schedule for major activities</td>
</tr>
<tr>
<td>- Discuss and obtain feedback from community and the stakeholders on the sub-project and record objections, if any.</td>
</tr>
<tr>
<td>- Provide information on the expected roles of the community during the conduct of the above-mentioned activities.</td>
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</tbody>
</table>

Based on the feedback from the community and other key stakeholders, make appropriate modifications in sub-project design to avoid or minimize adverse social impacts.

<table>
<thead>
<tr>
<th>Activity 3. Public Information Campaign performed prior to the Census &amp; Inventory; and Socio-economic surveys, where necessary. The following information will be provided:</th>
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<tbody>
<tr>
<td>- description of sub-project components, types of impacts, the content and schedule for census and inventory surveys</td>
</tr>
<tr>
<td>- a request to APs to prepare necessary documents related to tenure status, ownership of assets, payment of taxes on assets, etc.</td>
</tr>
</tbody>
</table>

It is a good practice to make public announcements through mass media (newspaper insertions, announcements on radio and TV) on project objectives. It is also advisable to hold public meetings at the community level to inform affected population about the project and its objectives.
### Activity 1. Information dissemination and consultation with APs during field surveys:

- project description and its likely impacts
- objective and contents of the surveys
- general provisions of compensation policy
- mechanics and procedures for public participation and consultation
- resettlement options (reorganization on remaining land, relocation to a fully developed resettlement site, or cash compensation)
- grievance redress procedures
- feedback on the availability of APs to participate in income generation activities in the sub-project, where relevant

It is a **good practice** to prepare a brief Public Information Booklet (PIB) for distribution to all the APs. The PIB should very briefly explain the sub-project objectives, likely benefits and adverse impacts, general provisions of the compensation policy, and grievance redress mechanisms.

### Activity 2. Information dissemination to local authorities after completion of census & inventory and during the SA/RP/EMDP preparation:

- Sub-project components
- proposed policies and procedures including proposed resettlement strategies
- a summary of impacts
- request for identification of resettlement sites, if necessary
- tentative implementation schedule
- roles and responsibilities of the sub-project proponents and local authorities

### Activity 3. Consultation with community and other key stakeholders:

- feedback regarding relocation site(s)
- preferences for the mode of compensation for affected fixed assets (i.e., cash or land-for-land)
- In case an ethnic minority community will be affected by the project, the consultation will also touch on the socio-cultural implications of the draft RP / EMDP and the project
- When the draft RP / EMDP are available they should be provided to key stakeholders and local NGOs in their native language and put in a public place. Feedback should be requested and incorporated into the final documents.

It is **good practice** to document details of all the public meetings held with people and local government officials with dates, location and the information provided and the major emerging issues. It is recommended that RPs and other documents include this list, as an attachment. Where public announcements are made, the details, together with a copy of the text of the announcements should be provided in the documents.

Many ethnic minority communities have their own representative organizations that provide effective channels for communicating local preferences. Traditional leaders occupy pivotal positions for mobilizing people and should be brought into the planning process, with due concern for ensuring genuine representation of the ethnic population. NGOs can also act as partners in development.

The draft RP/EMDP/SA should be discussed with local authorities and a copy of the document should be kept with provincial and district level authorities. APs should be informed through public announcements on the availability of the draft documents at the district and local government level.
### Implementation

**Activity 1. Information dissemination and training after finalization of the RP/EMDP:**
- schedule for start-up of the sub-project
- provide training workshops on waste collection and recycling, and community roles in EMP where relevant
- arrange resettlement training workshops for the local government officials on RAP implementation (PAP representatives should be included in the workshops) and training on any issues related to each institution’s role in implementation of the EMP.
- provide detailed information on project policies and implementation procedures

**Activity 2. Public Meeting – Information to be provided to APs on:**
- project components
- APs’ Rights and Entitlements
- the grievance mechanism and the appeals process
- rights to participate and be consulted
- schedule for resettlement activities and follow-up activities for revalidation of inventory and finalization of entitlements
- organizational responsibilities
- RP/EMDP and institutional arrangements

Adequate time should be given to local authorities to contact and inform APs about the purpose, time and place of the meetings. Both men and women from affected households, as well as other interested community members should be encouraged to attend. Explanations should be given verbally and in visual format. Adequate opportunities should be provided for APs to provide feedback, ask questions and to contribute their ideas for income generation activities and rehabilitation options. A complete list of all APs present at the meetings, record of all questions, comments, opinions and decisions that arise during the information/consultation meetings should be maintained.

**Activity 3. Inventory Follow-up Visit to APs for:**
- updating of inventory and finalization of entitlements
- getting APs’ concurrence on final inventory and entitlements
- completion of ‘summary compensation form’ for each AP and obtain their signature on the forms
- record any grievance on inventory or entitlement
- record their preferred options for cash or land-for-land, and for rehabilitation assistance measures. Document their preferences for planning of resettlement sites and for appropriate rehabilitation assistance measures
- obtain their concurrence on the amounts they would be charged for the extension of services under the sub-project

It is a good practice to provide each AP with a copy of the final ‘summary compensate form’ in which their affected assets, compensation entitlements and final compensation amounts are recorded. The AP should be asked to sign the form to indicate his/her agreement with the inventory recorded, and with entitlements and compensation amounts.

**Activity 4. Information to APs about Compensation Payment**

A letter of notification should be sent to each AP with the time, location and procedures for compensation payment. The APs should also be informed in advance on the documents (letter of authority, identification card, land title, etc.) that they are required to bring with them for compensation payment purposes.

Record of all grievances and the actions taken should be maintained.
| Implementation (contd.) | **Activity 5.** Consultation with APs to confirm preferences for rehabilitation assistance (income restoration) measures  
APs entitled to income restoration and other rehabilitation assistance should be contacted personally to confirm their preferences for the type of rehabilitation assistance and preferred scheduled for delivery of such assistance.  
It is a good practice to give preference to APs in implementation of various sub-project activities in order to provide them with additional sources of income during the implementation stage. |
|-----------------------|-------------------------------------------------------------------------------------------------|
| **Activity 6.** Information to APs on Relocation and Site Clearance, where applicable:  
APs should be consulted and informed about the timing of relocation and clearance of the sub-project area and coordination with the beginning of physical works. APs should be given sufficient time to harvest their crops and make arrangements to salvage any private assets, where applicable, prior to start-up of civil works. |
| **Activity 7.** Information to the general public and APs about the beginning and ongoing schedule for physical works:  
Sub-project proponents, local authorities should notify the general public within and in the vicinity of the sub-project area about the schedule for physical works. Public announcements should be made through notices in the newspapers, and radio and TV announcements.  
It is a good practice to provide a mechanism for participation of affected community members in monitoring of resettlement and other sub-project implementation activities. Participation of APs in monitoring will provide project management with a more accurate reflection of APs reactions and perceptions. |
| **Activity 8.** Assistance during relocation:  
APs should be assisted in relocation to their new sites by providing assistance in transportation, settling in assistance, counselling. This should be carried out with the assistance of NGOs, where possible, and through local officials and project staff. |
| **Activity 9.** Record and Respond to Any Environmentally related complaints:  
Project affected groups and the general public should be provided with a means of filing complaints in regards to environmental issues (including noise and other nuisance effects) to the project proponent. The project proponent should respond to the complaint and provide records of complaints and responses to the Regulatory Agencies as part of their supervision reports. |
| Ex-Post Evaluation | Ex-post project evaluation will likely to require some measure of consultation with APs, key stakeholders and NGOs. It is a good practice to consult APs in the planning and implementation of ex-post evaluation, especially with regard to fundamental resettlement objectives such as restoration of incomes and living standards, and especially if follow-up plans or remedial actions are known to be likely. |
CHAPTER 12: Grievance Redress

12.1 Introduction

Resettlement implementation cannot be considered completed successfully until the APs are fully satisfied with all aspects of entitlements and timely delivery of compensation, allowances and other assistance including provision of economic rehabilitation and relocation, where necessary. The implementation of resettlement activities, especially in large projects requiring relocation and economic rehabilitation is complex and fraught with dangers of complaints and grievances. Even in simple projects involving minor acquisition of assets requiring compensation payments, not adhering to the principles of resettlement policy and entitlement may lead to serious complaints and grievances by APs. Experience indicates that most of the complaints and grievances in resettlement arise mainly due to the lack of transparency and weak, or lack of information dissemination and consultation by project authorities. Even if the compensation entitlements and rates are in accordance with the resettlement policy, lack of awareness of these aspects among APs may lead to suspicion and complaints.

Additionally, most complaints and grievances in any project relate to inventory, entitlements and compensation rates for affected assets. A good degree of transparency and diligent actions by project authorities during resettlement preparation can eliminate, or minimize many of such issues and problems that lead to complaints. Specific measures that can help achieve these include:

a. Preparation of inventory in the presence of household heads and certification by them on accuracy.
b. Informing APs on project objectives, impacts, policy provisions and entitlements and providing them with a copy of Public Information Booklet (PIB).

12.2 Grievance Redress Mechanism

Primary responsibility to address all complaints and grievances in a project lies with project proponents. As project authorities are also responsible for carrying out census, inventory preparation and socio-economic surveys, as well to determine entitlements to compensation, allowances and other assistance, only they can address any complaints and grievances arising out of these issues effectively and at local level.

12.2.1 Grievance Redress Committees (GRCs)

Upon approval of the project by the GoL PDR and prior to start up of resettlement implementation activities, the project authorities will make a formal request to STEA to establish Grievance Redress Committee (GRC) in each district covered by the project to address any complaints and grievances pertaining to land acquisition, compensation and resettlement that are brought forward by APs.

STEA, in consultation with appropriate authorities will establish GRCs in each of the districts. The Grievance Resolution Committee (GRC) shall be comprised of the following:

1) A local government representative;
2) Village head(s);
3) Representatives of the affected households, other than the village heads;
4) Village elders or local level representatives of mass organization or NGOs; and
5) Project proponent representatives.

It is essential to include representatives of project authorities in GRCs so that essential information on inventories, entitlements, compensation rates etc. can be provided to the committee members for review of particular complaint.

12.2.2 Grievance Redress Procedure

Grievance Redress Procedure will comprise of the following:

Step 1: As a first step, all complaints and grievances relating to any aspect of the project or sub-project should be properly documented by project officials and addressed through consultations conducted in a transparent manner and aimed at resolving matters through consensus at the project level to pre-empt all disagreements being referred to the district level GRCs or higher level and ultimately to the court of law. All meetings between the project authorities and complainants should take place in public place and participated by representatives of APs, local NGOs and mass organizations, and village heads to ensure transparency.

Project authorities should make every effort to find an amicable settlement to the complaints or grievances brought up by APs at the project level. If the APs are not satisfied with the decision of the project authorities within 15 days from the filing of the complaint or when the problems and issues that cannot be addressed to the satisfaction of affected communities and individual APs, the complaints can then be forwarded to the GRC. Representatives of APs, local NGOs and mass organizations should ensure that the complaints are forwarded to GRC on behalf of the aggrieved APs.

Step 2: If the APs do not receive any response from the GRC within 20 days of filing the complaint, or if the matter is not resolved to the satisfaction of the AP, the representatives of APs, local NGOs or mass organization will, on behalf of the APs, will submit the complaint to the head office of the project proponents and STEA. Project authorities and representatives of APs will follow-up the case with Project Head Office and STEA on behalf of the APs.

Step 3: If the matter still remains unresolved within 20 days of filing the complaint to the project proponent and STEA, and at the request of the APs, the representatives of local NGOs and mass organization will, on behalf of the APs, forward the complaint to the Court of Law and follow up with the relevant authorities. The decision of the Court of Law would be final.

All administrative and legal costs incurred in pursuant to the grievance redress procedures by APs or their representatives at the level of GRC, project head office and STEA and the Court of Law would be covered by the project. Claims of all such costs are to be submitted to the project authorities by the APs. A copy of the claims should also be submitted to STEA for record and information.

The Project Authorities will document all complaints received in writing (or written when received verbally) from the APs in pursuant to the grievance redress procedures at every stage.

12.3 Best Practice Procedures

To minimize complaints and grievances in project, some best practice examples are indicated below:

a. Provide copy of DMS forms to APs;
   b. Provide copy of PIB to each APs;
   c. Provide copy of summary compensation form to each APs;
   d. Ensure that the information on official and market rates for all types of affected assets are provided to the APs; and
   e. APs are fully consulted in all aspects of resettlement planning and implementation.

Above actions and activities will, to a great extent, minimize, if not avoid grievances and complaints in a project.
CHAPTER 13: Monitoring and Evaluation

13.1 Objectives of Monitoring

The objective of monitoring is to provide feedback on implementation, and to identify problems and successes as early as possible to facilitate timely adjustment of implementation arrangements. Monitoring of RP implementation is of critical importance in all projects involving involuntary resettlement for several reasons: (1) resettlement is on the critical path on any project and can cause severe delays; (2) it affects peoples lives directly, and can cause severe hardship; (3) it is the main mechanism to alert management to delays and problems in implementation.

13.2 Supervision & Monitoring

While most line agencies are aware of supervision procedures for construction activities, very few are competent in supervision and monitoring of resettlement activities basically because not many agencies involved in development projects have permanent staff responsible for resettlement and social issues.

To ensure that land acquisition, resettlement and rehabilitation activities will be carried out in accordance with the provisions of the RP, both monitoring and supervision are required throughout the project. Monitoring and supervision are related but distinct activities. Monitoring involves primarily the systematic use of information to determine the extent to which plans are being implemented effectively. Monitoring information also contributes to identification of problems that may require adjustment to the resettlement plan itself. Many actors are involved in these processes. In a very simplified model, the actors can be classified as follows:

<table>
<thead>
<tr>
<th>Supervision</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>Line agency management</td>
</tr>
<tr>
<td>External</td>
<td>Regulatory Agency</td>
</tr>
</tbody>
</table>

The importance of regular reporting on financial and physical progress, the basic functions of project management, cannot be overemphasized. Responsible project managers rely on timely feedback regarding availability of inputs, flow of finances and delivery of services. Progress should be reported against time-bound action plans (normally expressed in the Project Implementation Plan through such devices as bar charts, Gantt charts, or MS Project tables). Identification and use of quantitative monitoring indicators provides an efficient tool for monitoring many aspects of project performance. With regard to socioeconomic impacts, however, supplementary qualitative assessment is likely to be necessary.

Role of APs in monitoring. Mechanism for APs to play effective role in monitoring process is essential to successful overall project monitoring. A direct channel for APs to voice their concerns, perceptions, and acceptance or rejection of project interventions is critical to successful implementation. Monthly meetings, focus group discussions, or other such
participatory venues should be part of the implementation strategy, and thus the responsibility of the implementing agency. In addition to line agency's interaction with APs, it is advisable to engage external consultants to contact AP during monitoring, and to verify results of internal project reporting. The minutes of meetings should be recorded and the major issues raised communicated to the regular management review process. More systematic surveys may be used, perhaps on an annual basis, to obtain quantitative information about initial effects of project interventions.

**Monitoring indicators** should correspond to stages of the process, which may be different than stages of the project cycle. Table below provides a set of generic resettlement monitoring indicators. No single set of indicators is universally sufficient, however. Project-specific indicators are likely to be needed to reflect the activities and implementation arrangements of the project in question.

**Suggested Generic Resettlement Performance Indicators**

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Dimensions of the resettlement process</th>
<th>Indicators</th>
<th>Means of verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>Establishment</td>
<td>Qualified staff in place</td>
<td>Quarterly internal monitoring reports</td>
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<td></td>
<td>Establishment</td>
<td>Equipment available</td>
<td>Quarterly internal monitoring reports</td>
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<td></td>
<td>Establishment</td>
<td>Finance on deposit</td>
<td>Quarterly internal monitoring reports</td>
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<tr>
<td>Process</td>
<td>Information to APs</td>
<td>Information disseminated</td>
<td>Internal and external monitoring</td>
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<tr>
<td></td>
<td>Capacity building</td>
<td>Training of APs</td>
<td>Internal and external monitoring</td>
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<tr>
<td></td>
<td>Consultation and participation</td>
<td>Meetings held and committees formed</td>
<td>Internal and external monitoring</td>
</tr>
<tr>
<td>Outputs</td>
<td>Compensation</td>
<td>Compensation paid for acquired assets</td>
<td>Internal and external monitoring</td>
</tr>
<tr>
<td></td>
<td>Acquisition</td>
<td>Assets acquired</td>
<td>Internal and external monitoring</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>Community assets replaced and relocation site prepared</td>
<td>Internal and external monitoring</td>
</tr>
<tr>
<td></td>
<td>Relocation of APs</td>
<td>Relocation completed and grants paid</td>
<td>Internal and external monitoring</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation</td>
<td>Jobs/businesses/incomes provided</td>
<td>Internal and external monitoring</td>
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<tr>
<td>Impact</td>
<td>Results</td>
<td>Incomes restored</td>
<td>External monitoring</td>
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<tr>
<td></td>
<td>Results</td>
<td>Living standards restored</td>
<td>External monitoring</td>
</tr>
</tbody>
</table>

**Diagnostic studies** are normally studies commissioned specifically to address problems identified through regular reporting. Examples include market surveys to assess the feasibility of skill upgrading for a specific vocation in the rehabilitation process, or studies examining reasons why APs are refusing to accept certain options or failing to adapt to resettlement programs. Such studies typically recommend actions to remedy such deficiencies, many of which cannot be anticipated at the planning stage. Diagnostic studies also include special
market studies to determine whether the compensation rates determined by project proponents reflect current market rates and ensure compensation at replacement cost. Diagnostic studies should be undertaken as early as possible and concluded as quickly as possible so that improvements to plans and procedures will benefit the maximum number of APs.

13.3 Internal monitoring

During project preparation, and as part of the RP, the implementing agency is required to develop a monitoring and reporting framework for resettlement activities. Central to this framework should be the census of APs and the inventory of assets that constituted the basis for the agreed RP. The organizational unit responsible for project reporting on resettlement (project resettlement unit, where it exists) should oversee the progress in resettlement preparation and implementation through regular progress reports, submitted through normal channels, monitoring key indicators of finance, inputs and activities.

The specific objective of the internal monitoring and supervision is to: (i) verify that the baseline information of all APs has been carried out and that the valuation of assets lost or damaged, and the provision of compensation, resettlement and other rehabilitation entitlements has been carried out in accordance with the provisions of the Resettlement Policy and the RP; (ii) oversee that the RP is implemented as designed and approved; and (iii) verify that funds for implementation of the RP are provided by the project management in a timely manner and in amounts sufficient for their purposes, and that such funds are used in accordance with the provisions of the RP.

13.3.1 Monitoring Indicators

The main indicators that will be monitored regularly are:

- The entitlements of APs are in accordance with the approved policy and that the assessment of compensation is carried out in accordance with agreed procedures;
- Payment of compensation to the affected people in the various categories according to the level of compensation described in the RP;
- Public information and public consultation and Grievance procedures are followed as described in the RP;
- Consultation with, and participation of APs in identifying appropriate rehabilitation assistance measures;
- Relocation, reorganization, and payment of subsistence and shifting allowances are made in timely manner;
- Restoration of the public facilities and infrastructure affected by the project;
- Job creation (number of persons who need job provision and the number who have found a job);
- Provision of training and credit availability to those entitled to such assistance; and
- The linkage of resettlement and commencement of civil works.

13.3.2 Monitoring Report

This overall monitoring and reporting framework should provide a routine flow of information from the field level to the headquarters of the implementing agency, based on predefined
indicators, together with periodic supervision and verification by the resettlement unit, or those in charge of resettlement operations.

13.4 External Monitoring

In addition to internal monitoring, external (or independent) monitoring is normally required to provide an independent periodic assessment of resettlement implementation and impacts, to verify internal reporting and monitoring, and to suggest adjustment of delivery mechanisms and procedures as required. To function effectively, the organization responsible for external monitoring should be independent of the governmental agencies involved in resettlement implementation. Project proponents are responsible to contract suitable and experienced external monitoring agency and budget for the same should be provided in the RP. The following activities are the standard functions of the external monitors:

- Verification of internal reports, by field check of delivery of the following:
  
  a. payment of compensation including its levels and timing  
  b. land readjustment  
  c. preparation and adequacy of resettlement sites and house construction  
  d. provision of employment, its adequacy and income levels  
  e. training  
  f. rehabilitation of vulnerable groups  
  g. infrastructure repair, relocation or replacement  
  h. enterprise relocation, compensation and its adequacy  
  i. transition allowances  

- Interview a random sample of APs in open-ended discussions to assess their knowledge and concerns regarding the resettlement process, their entitlements and rehabilitation measures.

- Participate as an observer in public consultations for APs at the village or town level. (Organizing these meetings is the responsibility of the implementing agency.)

- Observe the functioning of the resettlement operation at all levels to assess its effectiveness and compliance with the RP.

- Check the type of grievance issues and the functioning of grievance redress mechanisms by reviewing processing of appeals at all levels and interviewing aggrieved APs.

- Survey the standards of living of the APs (and that of an unaffected control group where feasible) before and after implementation of resettlement to assess the whether the standards of living of the APs have improved or been maintained.

- Advise project management regarding possible improvements in the implementation of the RP.

Regular external monitoring should begin along with implementation activities and continue until the end of the project. A sample TOR for External Monitoring is presented in Annex 13.1. External monitoring agency will submit periodic monitoring reports to project proponents, a copy of which should be regularly provided to STEA. A generic outline of monitoring report is provided in Annex 13.2.

13.5 Post Implementation Evaluation Study
Nine months to one year after the end of resettlement activities, the contracted monitoring agency should conduct an evaluation study of severely affected APs to determine whether or not the objectives of the RP in terms of restoration of incomes and living standards have been achieved. The methodology for the evaluation study should be based on the follow-up socio-economic survey to determine the impact of the project on income levels and living standards of the affected people who are severely affected by the project. A social and economic assessment of the results of delivered entitlements and a measurement of the income and standards of living of the APs before and after resettlement are integral components of this activity. This survey should be conducted following the same methodology as adopted for the inventory preparation. The survey data thus collected should be compared with the baseline survey information that has been collected during the preparation of the RPs. Should the findings of the study indicate that the objectives of the economic rehabilitation have not been achieved, the consultant should propose appropriate additional assistance that may be necessary to achieve the stated objectives.
Annex to Chapter 13
Annex 13.1
Sample Terms of Reference
For
EXTERNAL MONITORING OF RP IMPLEMENTATION

1. Background of the Project

2. Summary of Project Impacts

3. External Monitoring

Objectives

Broad objectives of monitoring include the following:

a) To provide project management with an effective tool for assessing ‘Resettlement and Rehabilitation Plan’ implementation at various stages and to identify problem areas and recommend remedial measures for efficient implementation of the policy.

b) To assess the effectiveness of ‘income restoration’ and other rehabilitation measures for affected households/communities.

Monitoring Targets and Functions

The monitoring targets and functions will include the following:

• Review the existing baseline and data gather additional socio-economic baseline data, if necessary, on sample families which are entitled to receive compensation for all of their lost assets or for resettlement and rehabilitation;

• Monitor implementation of the compensation policy and public information campaign;

• Identify and discrepancy between the policy requirements and actual practice, as well as any local level grievances;

• Provide recommendations for improving implementation of its policy.

Methodology

Monitoring methodology will consist of the following:

a. Random review of acquisition and compensation documents to ensure full compliance with policy’s requirements. This review should sample about 30% of all project’s entitlements.

b. Random site visits, where land acquisition processes are taking place, to ascertain that compensation has been duly paid prior to the start up of construction works under the projects; compensation is assessed based on the principle of replacement cost and grievances, if any, are solved. This activity should cover at least 20% of all concerned families each year. For these purposes monitoring will include the following aspects:

   - Inventory of affected assets;
   - Assessment of compensation for all types of affected assets based on replacement cost;
   - Compensation is paid prior to initiation of works.
c. special studies aimed to ascertain adequacy of compensation paid for land acquisition and/or other fixed assets, against current market prices.

d. Periodic field visits and survey, at least every three months, to ascertain that affected people are adequately informed of project objectives, impacts, compensation policy and entitlements through an effective public information campaign. This activity should cover at least 30% of all the PAFs each year.

e. Periodic field visits, at least every three months, to assess if grievance procedures are adequately explained to the affected people and implemented. This activity should cover at least 30% of all the project affected families.

Sample
To verify the quantitative aspects of implementation, sample surveys of various types of impacts should be conducted. A stratified sale as specified should cover target groups for each category, such as land-owners, affected house owners, tenants or workers. While making quantitative assessments of land acquisition activities all the provinces should be covered.

Data Collection Methods

Data and information will be gathered through:

- Questionnaires, to be personally administered.
- Direct interviews with affected households
- Specific focus group interviews aimed at identifying the specific problem issues related to groups such as self-employed persons with businesses, farmers and workers affected by loss of job, tenants affected by loss of place of residence, men heads of households, etc.
- Community meetings to discuss problem issues and identify solutions
- Project staff in the field

Data Analysis
Data and information collected will be analyzed by project, affected area, resettlement sites, levels of compensation, type of impact, etc.

Database Storage
The Monitoring Team will maintain a data base of resettlement monitoring information that will be updated every three months. It will contain certain files on each affected household and will be updated based on information collected in successive rounds of data collection. All data bases compiled will be fully accessible to the project authorities.

Monitoring and Evaluation Indicators
The following aspects of the resettlement policy will be monitored and evaluated regularly by the MA:

a) Payment of Compensation

(i) Whether assessment of compensation for all types of affected assets, especially for affected land, is based on the current market values;

(ii) The compensation for affected structures should be equivalent to the replacement cost of materials and labor based on standards and special features of construction, and no deductions made for depreciation or value of salvageable materials;
(iii) Full payments to be made to all affected persons sufficiently before land acquisition
(iv) Payment of all the allowances to APs prior to the start up of civil works and their shifting to the new sites, where applicable

b) Linkage to Resettlement and Construction
(i) The completion of land acquisition and resettlement activities on a phase, section or sub-section of the project at least one month before the start of physical works on that phase, section or sub-section.

c) Provision of Resettlement Site
(i) Affected people who are entitled to land-for-land option and for relocation to a resettlement site and who opt for relocation to a resettlement site, should be consulted about the location of the site;
(ii) Site location, site design, infrastructure, and plot allocation should enable affected people to restore living standards;

d) Provision of Training, Employment and Availability of Credit Assistance
(i) Training should be provided for one member of each eligible affected family who will be relocated, if the family chooses to opt for training;
(ii) The kind of training will depend on the preference of the affected person and the availability of a training course;
(iii) The option of post-training credit assistance should be provided to affected persons on the basis of low interest rates, and credit eligibility for otherwise ineligible groups such as women and low-income earners;
(iv) Training should be provided within three months of the date of relocation;
(v) Job placement to entitled persons should be provided within 2 months of the date of land acquisition

e) Public Consultation
(i) Affected persons should be informed and consulted about resettlement activities, such as implementation schedule for the project and shifting of APs from their present location, resettlement site design, location and plot allocation;
(ii) The monitoring team should attend at least one public consultation meeting each month to monitor public consultation procedures, problems and issues that arise during the meetings, and solutions that are proposed

f) Level of Satisfaction
(i) The level of satisfaction of affected persons with various aspects of the RAP should be monitored and recorded;
(ii) The operation of the mechanisms of grievance redress and the speed of redress of grievances should be monitored.

g) Standard of Living
(i) Throughout the implementation process, the trends of living standards should be observed and the potential problems in the restoration of living standards should be identified and reported

h) Awareness of Compensation Policy
(i) Public awareness of the compensation policy and their entitlements among the APs will be assessed;

(ii) Assessment of awareness of various options available to APs as provided for in the policy for land acquisition, compensation and resettlement.

The following outputs are expected from the assignment:

a. A brief methodological inception report submitted to the Project Manager and a copy to the project authorities within one month of beginning of the assignment.

REPORTING REQUIREMENT

Reports:
The External Monitoring Agency (EMA) shall prepare and submit the Client six copies of each of the following reports:

- **Inception report**: to be submitted 30 days after work begins; the report shall contain a brief methodological inception and schedule for the completion of the work described herein with the attention to use all outcomes of available reports.

- **Monthly reports**: at the end of each month a brief progress report summarizing the works on-going or accomplished by the EMA during the past month.

- **Quarterly and special reports**: EMA shall prepare a comprehensive report summarizing all activities under the service at the end of each quarter and also at other times when EMA finish any special survey or sampling and its analysis and outcomes.

Notes:

Quarterly Monitoring Report should be prepared and submitted to the project authorities with a copy to the World Bank by the last day of every three months. The report should contain:

(i) A report of progress of implementation of all aspects of RPs;

(ii) Deviations, if any, from the provisions and principles of the PMU-Waterways policy on land acquisition, compensation and resettlement;

(iii) Identification of problem, issues and recommended solutions, so that PMU-Waterways is informed about the ongoing situation, and can resolve problems in a timely manner; and

(iv) Report progress on the follow-up of problems and issues identified in the previous report.

Semi-annual and annual reports shall summarize all the works done during the past semi or annual period and recommendation on problems, solutions and final status.
Annex 13.2
GENERIC OUTLINE FOR EXTERNAL MONITORING REPORT

1. INTRODUCTION
   1.1 Project Outline
   1.2 Resettlement Action Plan
   When was it prepared? Number of people affected?
   Original schedule for completion of land acquisition and resettlement activities.

2. PROGRESS
   2.1 Progress of work (provide table)
   Total number of APs by the type of losses, cumulative progress achieved at the beginning and during the monitoring period.
   2.2 Problems identified (delays etc.)

3. MONITORING
   3.1 Review of Documents (30% sample required)
   (i) Sample size covered during the period (provide ref. Of canal sections, district and provinces)
   (ii) Indicators
        • Inventory forms
        • Identification of marginal/severe impacts (include 1 or 2 forms checked in the Appendix)
        • Entitlements
        • Compensation Assessment: whether procedures followed to assess compensation at replacement costs are proper.
        • Record of payment
   (iii) Problems Identified

3.2 Field Survey (Questionnaire Survey)
   (i) Sample size covered (provide ref. To canal section, bridge, district and province - completed questionnaire survey form)
   Show breakdown of sample by categories covered such as: land owners, house owners, tenants, share-croppers, marginally (<20%) and severely (>20%) affected APs, illegal
(ii) Monitoring Indicators
- Preparation of Inventory (cross-check with the DMS forms in the office)
- Entitlements & Assessment of compensation
- Payment of compensation
- Public Consultation and Participation
- Awareness
- General level of satisfaction with adequacy & payment of compensation
- Information provided or level of satisfaction with compensation payment procedures
- Level of satisfaction
- Knowledge of grievance redress procedures

(iii) Problems Identified

3.3 Field Supervision

(i) Activities supervised during the monitoring period (give ref. to canal section, district and province)
- Describe activities supervised
- Public meetings and information
- Preparation of inventory
- Compensation assessment and negotiations
- Compensation payment

(ii) Problems identified

4. ISSUES ARISING FROM PREVIOUS REPORT

4.1 Problems identified and recommendations made
4.2 Actions taken by Project Authorities
4.3 Outstanding problems and issues

5. SUMMARY AND RECOMMENDATIONS
CHAPTER 14: Resettlement Cost & Budget

14.1 Resettlement Costs

Experience of a number of projects that have been implemented in the past or those currently ongoing suggest that budgeting and financing remain weak, costs sometimes go unidentified altogether, and if identified, they may be underestimated. Where the resettlement costs are estimated and budgeted, funds actually allocated for implementation frequently prove to be insufficient. Although the Policy requires all costs associated with resettlement should be borne by the project, underestimation of resettlement costs and insufficient resettlement funding sometimes create severe burdens for APs and undermine other project objectives as well.

In most projects, as a result of poor planning, cost underestimation often leads to cost overruns. Poor budgeting exacerbates the problems during implementation. And even the best budgets may be of little value if funds are unavailable, or if financial responsibility is not clearly assigned.

14.1.1 Identifying and Reporting Resettlement Costs

Resettlement costs are now more broadly recognized and accepted in general terms, but actual resettlement costs associated with particular projects quite frequently remain unidentified in planning stages. Basic tools required to identify and estimate resettlement costs are:

- a **policy framework** that establishes eligibility criteria for entitlements and other forms of assistance
- a **census** to establish the number and identity of individuals, households, or communities to be affected, usually with an inventory of major assets (land, housing) to be affected.
- a **socioeconomic survey** (or surveys) that inventories all assets affected and determines impacts upon incomes and living standards. Such a survey often uncovers costs not previously recognized by planners
- **project technical designs**, including designs for relocation sites and other resettlement-related facilities and services.

The failure to identify those affected, to inventory affected assets, or to recognize adverse impacts upon income sources routinely leads to significant resettlement cost increases for which financial resources have not been allocated. Resultant delays seriously affect project objectives and performance.

A lack of standard cost reporting sometimes contributes to the failure to identify resettlement costs. There is general agreement that most resettlement-related costs incurred in implementation can be placed in four budgeting categories: compensation, relocation costs, rehabilitation (or income restoration) costs, and administrative costs. There also are preparatory planning costs and sometimes technical assistance costs incurred before project approval. Broad categories to determine resettlement costs are briefly defined below:
• **Compensation.** This category refers primarily to the cost of payment (or acquiring direct substitutes) for expropriated land, housing, structures, and other fixed assets (including assets acquired for temporary project use). Compensation costs also include the cost of preparing resettlement sites or mitigating costs to be borne by host communities. This includes replacing or restoring community facilities (e.g., community centers, religious facilities) and replacing or restoring public infrastructure (e.g., roads, bridges, sewerage, irrigation works). The Policy requires that compensation be at replacement cost; there is very limited scope for minimize compensation costs (except in rare circumstances where APs voluntarily accept resettlement-related alternatives to compensation). The best way to minimize compensation costs is to avoid expropriation. Attention to the timing of land acquisition, for example, may permit crop harvest, alleviating the need for crop compensation.

• **Relocation costs.** This category refers to costs associated with physical relocation of people, businesses, livestock, and moveable assets, including allowances and any transitional expenses for shelter that arise between displacement and relocation. These costs are variable, with considerable scope for minimization. For example, timely preparation of replacement sites and provision of services can reduce transition expenses.

• **Income restoration costs.** If compensation for assets is insufficient to restore incomes, this category covers costs associated with assuring opportunities for improving or restoring incomes, as well as temporary income support if required. Costs may include measures for training, identification of employment opportunities, or start-up capitalization for micro-enterprises. Costs in this category tend to be relatively more contingent because income recovery depends in part upon the skills and attitudes of those affected. However, careful resettlement planning can lower costs by encouraging AP acceptance and adaptation. Conversely, poor planning can heighten costs by exacerbating uncertainty and vulnerability.

• **Administrative costs.** This refers to operating costs (mostly for personnel and logistical support) incurred in administering resettlement operations.

• **Preparation costs.** This refers to costs incurred to obtain information necessary for budget and plan preparation. These costs are incurred before the budget is prepared and are generally not included in resettlement costs.

• **Technical assistance costs** include personnel training, institutional capacity-building, consultancy services, and independent monitoring.

14.1.2 Estimating Resettlement Costs

Because resettlement involves complex and contingent processes, cost estimates and budgets are not precise. In fact, for relatively minor cost items, employing elaborate methodologies in an effort to establish cost precision can be more costly than the costs themselves. If cost estimation cannot be done precisely, budgeting nonetheless can be done adequately. In essence, adequate budgets require estimates that, on balance, fall within a reasonable margin of error, plus reliable contingency arrangements. Resettlement budgets should vary significantly to reflect the variation in the scope and complexity of resettlement measures. For example, costs will be lower in projects requiring partial asset acquisition but not actual relocation.

• **Planning costs:** The costs of preparing resettlement plans varies by the complexity of the project and by who is called upon to do the planning. If project agencies have skilled personnel, part of the preparatory costs are likely to be absorbed into existing budgets. Where expatriate consultants are contracted, the preparation cost would be higher. In some cases, hiring consultants on a contractual basis may be more cost-effective than to develop
internal planning capacity. For project agencies likely to be involved with more than one project, development of in-house capacity is recommended. This is likely to reduce both planning costs and implementation costs over time.

- **Compensation costs**: In principle, compensation refers to a relatively simple financial transfer in return for expropriated assets. Many costs in this category can be determined with relative precision, especially where active markets provide prices approximating net present value. Moreover, as a single transaction, compensation is generally free of recurrent costs. Nonetheless, estimation of compensation at replacement cost can be highly complex, especially where markets function poorly, where property values change rapidly, or where property rights are uncertain. Additional complexities attend estimation of costs of site preparation until technical designs, timetables, and possibly other resettlement activities are finalized. Such costs also may depend upon choices APs make regarding alternative sites or compensation options. Resettlement site development also is a recurring source of cost-underestimation because estimates are not based upon technical expertise or scheduled construction rates.

- **Relocation costs**: Most costs in this category also are single-shot payments. They can be difficult to estimate because they often arise during implementation as byproducts of delays or cost overruns.

- **Income restoration costs**: Because the costs of income restoration per se are unpredictable, estimates typically are based upon proxies, such as training costs or the costs of providing credit, or upon some other arbitrary measure. And many projects typically assign a flat unit-cost to income-restoration activities, despite the high variability in actual costs. Surveys should provide information sufficient to allow a more accurate estimate of costs. If flat unit rates are employed in projects where income restoration is a significant part of the resettlement plan, budgets should include substantial contingency funds earmarked for income-restoration purposes.

- **Administrative costs**: In many projects, it is difficult to estimate administrative costs because some costs specific to resettlement cannot be separated from general project overheads. The administrative cost structure also depends significantly upon whether resettlement agency or staff are to be employed specifically for resettlement purposes, whether resettlement-related tasks are to be distributed to existing agencies and staff, or whether they are to be contracted to consultants, NGOs, or others. Administrative costs are also dependent on types of projects. Typically the costs are higher in linear projects due to longer distances. Other factors include staffing, office space, equipment and vehicles. Monitoring and supervision costs are generally included under this category.

A sample format for reporting resettlement cost is given in Annex 14.1.

### 14.2 Budgeting for Resettlement

Resettlement budgets should not be viewed as rigid blueprints. Although thorough budgeting process can reduce uncertainty, even the most elaborate budgeting exercise does not guarantee that adequate funds are available when needed. So resettlement plans should build in mechanisms for financial flexibility, assuring that funds flow for anticipated resettlement activities when needed and that funds are reserved for unanticipated contingencies as they arise.

**Budgeting should be year-wise as well as item-wise.** Budgetary provisions should be linked to the resettlement timetable. Funds otherwise adequate in amount but released too late generate delays, losses to inflation, or other difficulties. Given the fact that most countries have very rigid budgetary procedures, timely financial allocation in the government’s annual
budget is very important. So budgets should estimate year-by-year spending requirements, and supervision should, at least annually, review future financial requirements in light of past resettlement performance.

**Earmarking important if financial management is weak.** Especially in projects with weak financial management or very scarce financial resources, it may be advisable to establish financial earmarks, or possibly escrow accounts, restricting use of designated funds to resettlement purposes.

**Adequate contingency funds are essential.** Imprecise budget estimates are by no means unique to resettlement; all projects assign contingency funds because virtually all project-related activities involve price or physical contingencies. Resettlement differs, however, because the contingencies are partially social or behavioral in nature. Reserve of contingency funds involves arbitrary judgment. As a general principle, however, as resettlement increases in complexity, the greater the potential need for contingency funds. Similarly, resettlement often is time-sensitive; the longer the interim between identification of resettlement and completion of resettlement activities, the greater the potential need for contingency funds. If contingency is assigned as a flat percentage of estimated resettlement costs, the percentage should rise for projects requiring income-restoration activities on any significant scale.

Following standard project practice, both price and physical contingencies are provided for resettlement. Especially for projects with resettlement phased over a number of years, price contingency is essential to counteract inflation so that payment of compensation and other expenses can be maintained in real terms. (In some projects, the project itself may have a significant impact upon land values through land acquisition.) Physical contingency covers incremental costs of implementation. The stage of technical preparation should be considered in budgeting physical contingency. If detailed designs are not available at appraisal, resettlement costs should be reassessed when designs are completed.

**RP must establish financial responsibility.** The ultimate safeguard in terms of resettlement budgeting is assuring that financial responsibility is clearly assigned in RPs. Especially in projects where resettlement issues span regional or municipal jurisdictions or require actions from multiple agencies, RPs must delineate sources of funds and mechanisms for timely delivery. RPs should also specify arrangements and responsibilities for meeting cost overruns.

Resettlement-related entitlesments are financial liabilities that can rise and fall without regard to budgetary allocations. Inadequate funding cannot be accepted as an excuse for non-delivery. With regard to income-restoration costs that are in part contingent on the responsiveness of PPs, the limits of liability are less clear. In terms of financing, the project proponents should provide adequate funds to create realistic opportunities for restoration or improvement of incomes, with the expectation that some people may need repeated assistance. To reduce potential costs during implementation, plans should assess the likelihood that training programs, replacement jobs, or other measures will be sufficient to return APs to productive lives.

*Financial Arrangements for Income Restoration*

Estimating the cost of providing opportunities for those eligible for income-restoration measures is highly uncertain - especially when APs are required to shift to unfamiliar productive activities. While compensation or replacement absolves a project of responsibility for expropriated assets, the limits of responsibility related to income restoration are less clear.
The Policy requires minimizing all displacement impacts, in terms of cost it is especially important to minimize impacts that require income-restoration measures. If income restoration measures are necessary, financial arrangements should:

- Ensure that income support is provided for a reasonable period of transition allowing restoration of income streams.
- Ensure that funding for employment training or start-up capitalization for micro-enterprises is sufficient.
- Ensure that contingency funds are allocated for secondary income-restoration efforts if initial measures prove unsuccessful.

14.3 Financing for Resettlement

Identification of sources of finance and commitment at the local, provincial and central level is extremely important. All costs associated with resettlement in projects sponsored by central or provincial line agencies or private agencies are to be financed by their own sources. Local governments are to be responsible for financing all resettlement activities for projects sponsored by them although regional level line agencies may be requested to bear the costs of infrastructure (roads, water, electricity etc.). To supplement their own source of revenue, local governments may be eligible for some assistance from central government. In the case of projects funded by multilateral agencies, some financing for resettlement can be made available, subject to the prevailing procedures.

Determining the Limits of Financing by Multilateral agencies

In projects funded by multilateral agencies, borrowers usually pay most resettlement costs. Relatively few projects with resettlement include any direct disbursement for resettlement activities by such agencies. The major constraint to disbursements is that available disbursement options are not used by borrowers, either due to unfamiliarity with various lending mechanisms, and a reluctance on the part of some governments to borrow for resettlement-related expenses.

A common perception in most agencies is that by using domestic funds for resettlement, they can avoid following requirements, norms and strict supervision on resettlement by these agencies. This is however, not true. In projects funded by the ADB or the WB, their requirements and norms apply to all aspects of projects, including resettlement, irrespective of sources of funds for such activities. Making Banks’ funds available can alleviate a shortage of funds and negates claims that financial resources are simply unavailable.

The scope of Banks’ disbursements can now cover virtually all resettlement-related costs except direct transfer payments (e.g., land acquisition, purchase of existing replacement housing, or taxes or legal transfer fees). Though financing is not permitted for land acquisition or for purchase of replacement structures, areas of potential financing are very significant in urban resettlement. Financing can be included for land improvement, including for development of resettlement sites, replacement housing construction costs, home mortgage programs, for provision of replacement public infrastructure, for enterprise development, credit, and job creation programs, all of which can be proportionately more important in urban resettlement. Special financial arrangements may also be available for urban resettlement pilot innovations. Based on the current practices followed in the ADB and the World Bank, the disbursement of loan in meeting resettlement costs are shown in the matrix in Appendix 14.2.

Financial Payment and Monitoring
Financial monitoring should assess the effectiveness of past expenditures. In terms of resettlement, “effectiveness” necessarily includes assessing whether compensation, as well as resettlement-related services, reach intended recipients and have the intended effect. Two recurrent complaints in the field are payment delays and insufficient amount of payment.

In some countries, for example, as compensation passes through the bureaucratic approval process, various government agencies may divert a portion of the funds for other purposes, public or private. In some countries, local government officials allegedly demand commissions for delivery of compensation or other benefits. In areas where such practices are alleged, implementation plans should include mechanisms to ensure delivery of compensation and other benefits. These mechanisms may include:

- A revolving fund to ensure prompt payment where budget constraints or bureaucratic processes are likely to cause delays.
- Public disclosure of compensation amounts and public payment to enhance transparency and discourage exploitative practices.
- NGO involvement in delivery of payments or in monitoring compensation procedures.
- Payment of compensation by check, or by direct deposit into a bank account, to reduce immediate opportunities for extortionate practices.
- Conditional provisions requiring RPs to specify that people cannot be evicted from their land or house before receiving full compensation.
- Grievance procedures available to APs in case of any problems in the delivery of compensation and other entitlements.

In some projects, community-based entitlements may be provided for loss of common property or other community facilities. In such cases, it is necessary to ensure that monitoring agencies determine whether all project-affected individuals enjoy access to community-based remedies and benefits. RPs should describe local plans for collective use for compensation, and should ensure that such plans (no matter how potentially beneficial to the collective at large) address the needs of APs. RPs should also describe mechanisms for monitoring collective use of compensation to ensure that those adversely affected, as opposed to the more broadly aggregated community at large, receive appropriate remedies and benefits.

14.4 Coordinating Administrative and Financial Responsibilities

Successful design and implementation of projects requires sufficient funds and careful coordination among several layers of government and multiple line agencies. Simple problems of coordination in timing and delivery quickly become far more complex because agencies involved may have conflicting functional roles, legal requirements, and strategic priorities. In practice, project implementation often is marred by a lack of clarity regarding administrative responsibility for implementing resettlement plans, a lack of clear responsibility for financing resettlement-related costs.

Administrative Coordination

Resettlement plans should identify the role of various agencies in planning and implementation of resettlement and assign specific responsibilities in respect of the tasks and activities to each of the participating agencies. When implementation of resettlement plans requires coordination of multiple agencies or jurisdictions, it may be necessary to establish a central resettlement group comprising of representatives from participating agencies and headed by an officer from the project agency responsible for resettlement operations.
**Financial Coordination**

To ensure that resettlement is adequately funded, the project proponents should assess existing or potential sources of funds for administrative agencies responsible for payment of compensation, provision of entitlements, or implementation of other aspects of the RP. Not uncommonly, municipal agencies are assigned responsibility for payment of compensation, or provision of housing and urban infrastructure. But they receive no budgetary supplement or taxing authority to pay for the additional expenses. Project proponents should explore prospects for establishing escrow accounts for resettlement-related expenses. Where some financing is provided by external funding agency, the funds committed to resettlement-related expenses also should be disbursed through a separate project account. To ensure availability of adequate funds during implementation, the resettlement plans should:

(i) Provide detailed cost estimates for all cost categories in resettlement including contingencies;
(ii) Provide yearly phasing of activities and budgetary allocations linked to financial year and to project phasing;
(iii) Identify sources of funds for each activity, financial responsibilities; and
(iv) Obtain commitments by participating agencies for provision of funds, including contingencies.
Annex to Chapter 14
## Annex 14.1: Format for Resettlement Cost

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>No. of HHs</th>
<th>UNIT</th>
<th>RATE $/UNIT</th>
<th>QUANTITY</th>
<th>AMOUNT $</th>
<th>AMOUNT USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation for Land and Structures and other fixed assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Agricultural</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Residential</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Commercial</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structures (Residential and Shops)</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Permanent</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Semi-Permanent</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Temporary</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Fixed Assets: Boundary walls, wells, retaining walls, porch, garage, pig-pans etc.</td>
<td></td>
<td>-</td>
<td>Lump Sum</td>
<td></td>
<td>Lump Sum</td>
<td></td>
</tr>
<tr>
<td>Allowance to cover Repair cost: (Residential+shops+Misc.)</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Permanent structures</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- S. Permanent</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Temporary</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compensation for Loss of elect. And Water Connection</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compensation for Land Preparation</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent Allowance</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crops/Trees</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Arable crops</td>
<td></td>
<td>m2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Trees</td>
<td></td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Subsistence Allowance</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconvenience Allowance</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitation Assistance</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material Transport Allowance to Relocating PAPs</td>
<td></td>
<td>hh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Water Tanks</td>
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<td>No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting Sheds</td>
<td></td>
<td>No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic</td>
<td></td>
<td>No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub – Total</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ext. Monitoring and Post-Implementation Evaluation</td>
<td></td>
<td>l.s.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Management cost 0.4%</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Price contingencies 15%</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. Allowances for repair cost also cover repairs to fixed assets other than residential or commercial shops.
### Annex 14.2: ELIGIBILITY FOR RESETTLEMENT COST UNDER THE LOAN

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Description</th>
<th>Mode of Compensation Payment</th>
<th>Eligibility for Financing out of the Bank Loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Compensation</td>
<td>Land</td>
<td>Cash or in Land</td>
<td>Not Eligible.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structures</td>
<td>Cash</td>
<td>Not Eligible*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Building Material</td>
<td>The cost of building material and labor is eligible</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Built Housing</td>
<td>Eligible. The cost of built house provided to AP in lieu of compensation for affected structure can be covered out of the Bank loan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crops/trees</td>
<td>Cash</td>
<td>Not Eligible*</td>
</tr>
<tr>
<td>02.</td>
<td>Allowances</td>
<td>Transition Subsistence Allowance</td>
<td>Cash or in kind</td>
<td>Not Eligible*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training cost Allowance</td>
<td>Payment to Training Institute during the Training</td>
<td>Eligible Not Eligible*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Allowance for Business loss</td>
<td>Cash</td>
<td>Not Eligible*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Repair Cost</td>
<td>Cash</td>
<td>Not Eligible*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transport</td>
<td>In kind</td>
<td>Eligible. Cash payment is not eligible</td>
</tr>
<tr>
<td>03.</td>
<td>Resettlement Site</td>
<td>Civil Works</td>
<td>Eligible</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consultants’ Fee for Surveys, Site-planning, and Technical Design during Project Implementation</td>
<td>Eligible</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management and Supervision Fee to Consultants during Project Implementation</td>
<td>Eligible</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fee paid to government departments for review and approval of plans and designs</td>
<td>Not Eligible</td>
<td></td>
</tr>
<tr>
<td>04.</td>
<td>RP Preparation</td>
<td>Costs incurred by Executing Agency</td>
<td>Eligible through Proj. Preparation Tech. Assistance</td>
<td></td>
</tr>
<tr>
<td>05.</td>
<td>Public Facilities and Infrastructure</td>
<td>Costs of replacement of affected infrastructures</td>
<td>Eligible</td>
<td></td>
</tr>
<tr>
<td>06.</td>
<td>Fee and Taxes</td>
<td>Fee and taxes paid to different government agencies for review of designs and RPs</td>
<td>Not Eligible</td>
<td></td>
</tr>
<tr>
<td>07.</td>
<td>RP Implementation and Supervision</td>
<td>Costs incurred by Executing Agency</td>
<td>Only the incremental costs incurred for RP implementation are eligible</td>
<td></td>
</tr>
<tr>
<td>08.</td>
<td>External Monitoring</td>
<td>Fee paid to independent monitoring agency or consultants</td>
<td>Eligible</td>
<td></td>
</tr>
</tbody>
</table>

*The eligibility in the matrix for these items is based on the current practices in WB funded projects.
CHAPTER 15: Implementation Schedule

15.1 Critical Issues in Implementation

The level of reliability of data in RPs is subject to the level of design details available during the feasibility studies. If in a project, the design parameters are finalized during the feasibility studies, the census and inventory based on detailed designs would be reliable and complete. The resettlement plans would therefore be considered complete, barring some minor changes during implementation. However, in case the technical designs remain preliminary, the RPs prepared on the basis of information provided may satisfy basic requirements for project process, but the RP will not fully cover all the possible impacts of the project, census of affected people, and inventory of losses. Without final designs and specified project boundaries, census cannot be completed accurately. The RPs in such cases would require updating following completion of technical designs and before implementation activities can commence.

Once updated, reviewed and found acceptable by relevant project authorities and STEA, the RP will become legally enforceable. Implementation of the RP can begin as soon as the approval from the Government is received. For updating and implementation of the RP following activities will take place sequentially.

RPs prepared during the feasibility study stage should clearly identify the gaps that remain in the RP, and the activities that would be necessary to complete the RP prior to implementation, as well as the activities that would be necessary during implementation phase. The information provided in the RP will enable project authorities to take necessary steps for efficient implementation management and supervision.

The RPs should provide a resettlement implementation schedule showing specific activities within a specific time-frame and linking resettlement to civil works. It should be kept in mind that the acquisition of assets, compensation payment in full, resettlement and rehabilitation activities for a segment/section or phase (except where long-term rehabilitation measures such as vocational training or other measures recommended) should be completed prior to the initiation of construction work under the respective segment/section or phase thereof.

15.2 Pre-Implementation Activities

Pre-implementation activities leading to the finalization of RPs will depend upon the type of project, and the types of technical studies required. Taking a Water Resources Project as an example, the following pre-implementation activities would be necessary.

Completion of Topographic and Hydrological Surveys
The preparation of detailed topographical maps of the project area, including upstream of the rivers and the area lying between them, and the hydrological surveys should be the top priority in the project. Without reliable and updated topographic and hydrological surveys the extent of the area affected by the project cannot be determined accurately.
Land Ownership Survey and Land Holding Maps
Contemporaneously to the topographic and hydrological surveys, it is absolutely necessary to prepare landholding maps of the project area that will be benefited by dry season irrigation. These maps should be supported with information on landowners. This information and maps will facilitate identification of beneficiary population, location of their landholdings and land holding sizes.

Design Parameters
Following the completion of topographic maps and hydrological surveys, design parameters such as, the level of weirs, width of secondary canals, drainage channels and service roads, and their locations need to be finalized. These design parameters will assist in determining the impacts of the project on private assets.

Identification of Impacted Areas and Affected Population
Based on the landholding maps and the proposed design of civil works in the project area, the affected landholdings can be identified. The information will assist in identification of beneficiary landowners and their economic background that will be affected by the proposed widening of secondary canals, and rehabilitation and construction of drainage channels and service roads. The information will also enable the extent of the area that will be inundated by the repairs to the weirs and in identification of APs upstream of the rivers.

Public Information Campaign and Updating of Census and Inventory
Following the identification of APs and the areas that will be inundated, public information campaign should be carried out to inform the affected population on the project and its objectives, and the schedule of census and inventory preparation for updating of the RP. Where possible, Public Information Centers should be established.

Updating of RP
The census and inventory of affected assets should cover all the population that has not been covered previously by the draft RP. Additionally, baseline socio-economic survey should cover at least 20% of the population. Based on the additional census and inventory of affected assets and the baseline survey, the RP should be revised and finalized. The revised RP should be prepared in consultation with the local authorities and relevant government departments that have stake in the project. The updated RP should be submitted to the relevant authorities, line ministry and STEA for further review and clearance prior to the implementation of the project.

15.3 Resettlement Implementation Activities
The RPs should also specify activities that would take place during the implementation phase. Taking the same Water Resources Project as an example, the implementation activities during the implementation phase are summarized below:

Establishment of GRC
As soon as the RP is formally approved, the project authorities will request STEA and the GoL to formally establish Grievance Redress Committees in respective districts covered by the project area.

Strengthening Capacity in RUs
After the establishment of GRC, the staff of the RU should be trained in resettlement and rehabilitation. The training should be provided by an experienced resettlement specialist who
should provide guidance to the PMU and other concerned line agencies in all matters related to resettlement and oversee the implementation of the RP. The training should also be made available to the members of the Stakeholder Monitoring Group. The training should focus on the resettlement policy and implementation procedures, public consultation and participation procedures, and focus group discussions and beneficiary consultation. The training should also include planning and delivery of rehabilitation assistance to the vulnerable groups in both the APs and the beneficiary population.

Consultation with Beneficiary Population
Following the completion of landholding maps and identification of landowners (beneficiary population) public consultation should be carried out to inform the beneficiary population about the likely impacts of the proposed civil works, and the objectives and procedures for land readjustment. Beneficiary population should also be informed about the grievance redress mechanism and the establishment of GRCs in each commune. All proceedings of the public meetings should be documented and records of issues raised and decision taken should be recorded.

Land Readjustment of Beneficiary Landholdings
Following the public consultation exercise, land readjustment exercise should be carried out with an objective to minimize adverse impacts on the small landholders and to ensure that every beneficiary households retain a landholding of at least minimum economic size. The economic size of the landholdings should be determined based on the expected productivity of the irrigated land and consultation with the local community leaders and the beneficiary population.

Revised Landholding Maps
Revised landholding maps should be prepared after completion of the land readjustment exercise. The revised maps should be discussed with the beneficiary population to obtain agreement. The revised maps should form the basis for land tiles.

Updating and validation of Compensation Rates
Following the updating and approval of the RP, the compensation rates for affected assets should be finalized to ensure that they reflect current market rates and compensation for affected assets at replacement cost. The final rates should be approved by the project authorities before they are used to determine compensation entitlements to each APs.

Public Information Campaign
The RU, with assistance from the local government authorities will arrange public meetings in each commune. The RU will develop a public information campaign to disseminate information about the schedule for validation of inventory and entitlements prior to the compensation payment.

Compensation and other Entitlement of APs
After unit prices have been validated and approved by the project authorities within the line ministry, the field teams will visit each AP to validate inventory, finalize entitlements and total amount of compensation and allowances payable to each AP. A Compensation Entitlement Form for each AP would be completed and signed by the APs to indicate their agreement with the affected areas and assets shown, entitlements and compensation amounts. A copy of the signed copy of the form would be given to APs for their record. Any disagreement on the inventory details or compensation rates would be recorded and addressed in accordance with the established procedures. The field teams will also reconfirm APs options for cash or land-for-land and the types of rehabilitation assistance measures.
Public Meeting
Upon Completion of the Compensation and Entitlements for each AP, public meetings will be arranged in each commune to inform the APs on: (a) the schedule for compensation payment; (b) relocation arrangements for those required to relocate; and (c) the schedule for start-up of civil works. APs will also be informed to harvest their crops prior to start-up of the civil works. The schedule for the civil works will be coordinated with contractors to ensure APs are provided sufficient time to complete harvesting activities and no damage to the crops is caused.

Payment of Compensation and Allowances
All payment of compensation and allowances will be made in a public place. The place, date and time of the compensation payment will be announced in advance and commune officials will be requested to ensure all APs within their administrative jurisdiction are informed.

Relocation
A coordinated plan for relocation of APs will be prepared in consultation with APs, with assistance provided by the RU staff, district and commune officials. APs will be provided with sufficient time for relocation prior to handing over the site for civil works.

Handing Over the Site for Civil Works
The site will be handed over for civil works when all the APs in a section or part thereof are paid full compensation and are relocated. All compensation and resettlement activities in the project road will be completed at least one month prior to start-up of the civil works.

Arrangements for Rehabilitation Assistance
Arrangements for planning and deliver if rehabilitation assistance to severely affected APs and vulnerable groups will start as soon as the payment of compensation to the APs is completed. The types of economic rehabilitation assistance will depend on APs choices, priorities and need.
PART IV
Resettlement Implementation
CHAPTER 16 : Pre-Implementation Arrangements

In terms of planning and implementation of resettlement in a development projects, responsibilities lie with respective line agencies and project proponents, but without full support of local and provincial administrative organs its planning and implementation becomes difficult. Provincial governments play active roles in supporting and coordinating implementation of development plans initiated by line ministries and their regional representative offices/departments. However, due to the hierarchical administrative system coordination between line agencies and local administration is often difficult. Major institutional and organizational problems at local government level include:

a. Although resettlement activities cut-across several disciplines none of the line agencies cover all aspects of resettlement and rehabilitation (R&R) activities in their normal course of responsibilities.
b. Acute shortage of skilled professional staff in disciplines critical for R&R activities such as social planning and development, human resource development and environment.
c. Awareness of local acts and bylaws relevant to resettlement is minimal in local staff.
d. Often the roles and responsibilities of assigned staff from relevant organizations in resettlement planning and development are not clearly defined.

16.1 Institutional Set-up

The first and foremost task prior to start-up of resettlement implementation includes organizational set-up within the project proponent or implementing agency if that is not already in existence. Additionally, capacity of other institutions that, in one way or another, likely to participate in resettlement implementation, should be analyzed and necessary provisions made to strengthen capacity to ensure that all the institutions fully understand the policy provisions, methodologies and procedures necessary for efficient resettlement implementation.

16.1.1 Social and Environment Divisions / RUs

Project Management Units in the line ministries or implementing agencies are responsible to oversee the overall management and implementation of the project. However, in regard to the resettlement implementation, an independent Social and Environment Division or a Resettlement Unit (RU) needs to be established either within the PMU or in the line ministry, as the case may be, that will be responsible for implementation of RP.

Social and Environmental divisions or RU, as the case may be, headed by a senior social scientist will provide technical guidance and support for RP implementation and will be responsible for the following resettlement activities:

- Overall planning of the resettlement programs;
- Organizing to implement RP on schedule and in compliance with the policies provided therein and the common principle of compensating and/or rehabilitating APs to improve or at least restore, APs' living standards. The task is carried out in coordination with the relevant government resettlement bodies among which PMU plays the main role;
- Providing training to the district & commune staff on planning and implementation of resettlement activities and on the principles of resettlement in accordance with the RP;
- Directly guiding, following up, supervising and monitoring internally the RP implementation;
- Updating inventory, where necessary, finalizing entitlements and payment of compensation and other assistance to APs, including planning and delivery of economic rehabilitation assistance;
- Conducting public consultation and participation activities and grievance redress in accordance with the framework provided in the RP;
- Contracting out with independent monitoring agency to monitor and assess resettlement implementation and propose necessary amendments/remedial actions.
- Amending or complementing the RP in coordination with concerning government agencies in case of any problems identified by internal and/or external monitoring of RP implementation to ensure that the objectives of the RP are met;
- In coordination with PMU, ensuring timely provision of budget for R&R activities;
- Preparing periodic supervision and monitoring reports on RP implementation for submission to PMU and STEA.

**Successful implementation of the RP will require close coordination between PIU and other local provincial and district authorities.**

**The Organization of RU**

In order to carry out assigned tasks, RU would be required to organize ‘task teams’, with specific roles and responsibilities. Task teams would be accountable for delivering the assigned tasks. Although the number of task teams and their responsibilities would vary depending upon the scope of the project and resettlement, the key areas to be covered by the tasks teams would include the following:

- Overall supervision, management, coordination and monitoring;
- Detailed Measurement Surveys, Inventory and Entitlements;
- Public Consultation, Participation and Grievance Redress;
- Relocation and Resettlement Site Development;
- Economic Rehabilitation Planning and Implementation;
- Data Management, Documentation and Report Preparation;
- The Financial and Accounting, including disbursement of funds and payment of compensation to APs

The members of the Task-Teams will work in close cooperation with each other.

**16.1.2 GRC**

The district level GRCs would include members from local government, NGOs and mass organizations. In order for the members of GRCs to impart their responsibilities efficiently, it is absolutely necessary that all the members fully understand the provisions of the Policy and entitlements to APs. It is also necessary that the members are knowledgeable about the
procedures in data collection, assessment of impacts and compensation rates as well as in public consultation and participation. Therefore, project proponents should undertake short training programs to inform local government officials and members of GRCs prior to start-up of resettlement implementation activities.

16.1.3 Provincial / Local Authorities

Traditionally, the role of local and provincial authorities is seen largely as administrative agencies. As such the provisions and opportunities for disciplines essential for planning and development activities are very limited. However, local authorities have been playing an increasingly active role in development. The capacity remains weak though. Provincial and local authorities and agencies can assist PMUs in:

(i) Public information dissemination and consultation process;
(ii) assisting project authorities in conducting census, surveys and socio-economic surveys;
(iii) land ownership and land holding surveys;
(iv) establishing compensation prices for land, structures, crops and other fixed assets;
(v) validating tenure status of land and structure;
(vi) land recovery and allocation;
(vii) assisting project authorities in payment process for compensation and other assistance;
(viii) planning and implementing all resettlement and rehabilitation activities in the district and commune level; and
(ix) assisting project authorities in addressing grievances and complaints.

16.1.4 Private Sector Institutions, NGOs & Mass Organizations

Local NGOs, mass organizations, consultants, universities and other research institutions possess experience and skills that can be tapped into and used in a constructive manner. Where available, these organizations and institutions can play an important role in all aspects of resettlement activities and in providing resettlement specialists in the ‘core-team’ responsible for planning and development of resettlement in major projects.

Recommendations

1. During the resettlement planning stage (resettlement action plans) an organizational set-up should be prepared indicating relationships among all responsible institutions and their functional levels.
2. Resettlement plans should also specify staffing requirements, including the level of technical skills and experience, for key resettlement activities.
3. Skills and experience of existing staff should be evaluated and the need for training in areas of deficiency identified.
4. Adequate arrangements for the training of staff and budgetary provisions must be assured prior to the start-up of resettlement implementation.

16.2 Strengthening Resettlement Capacity

It is necessary that the staff of RUs is fully conversant with the process and procedures necessary for resettlement implementation, management, supervision and monitoring. Although the RU staff should be given training in all aspects of resettlement planning and implementation, the priority of any capacity building exercise should be given to the specific functions and tasks assigned to the staff. In general, the training in the following aspects would be necessary:
a. Resettlement principles and policy;
b. Resettlement planning procedures;
c. Resettlement implementation procedures and sequence of activities;
d. Methodology for compensation assessment;
e. Data management system;
f. Public participation and consultation procedures; and
g. Supervision and monitoring of resettlement.

16.3 Data Management, Documentation Reporting Procedures

Project authorities should establish computerized data management system to ensure that all the information collected during RP preparation i.e. census, inventory and socioeconomic baseline surveys is codified and maintained in standard data management system. It is necessary to design and finalize the data input procedures and formats for output. The output forms should be designed in advance to facilitate implementation activities. Key output forms are suggested as follows;

a. Summary of impacts on land, structures, tree crops and other fixed assets
b. Socioeconomic data for APs
c. Entitlements to compensation for lost assets
d. Entitlements to allowances and other assistance
e. List of APs entitled to relocation with details on impacts and entitlements
f. List of APs entitled to economic rehabilitation with details on socio-economic background and preferences for rehabilitation assistance measures
g. Summary compensation form for each AP

Additional forms may be designed and produced depending upon the needs and requirements. The staff assigned for data management should also be responsible for preparation of supervision and monitoring reports based on the information provided by the field staff.

16.4 Setting-up Implementation Procedures

Prior to initiating any resettlement implementation activities, project authorities must formalize procedures for specific activities in the field. The key areas that would require particular attention include the following:

16.4.1 Validation of Impacts and Entitlements

In most projects the time-lag between the first preparation of RP and start-up of resettlement implementation may result in significant changes in APs assets rendering the inventory prepared during the RP preparation outdated. Therefore, updating of inventory and revalidation of impacts identified during RP preparation is an essential activity during RP implementation. It is important that the procedures to validate inventory be discussed by the RU’s assigned staff and with local authorities prior to start up of implementation. The procedures should be understood clearly by all the staff to ensure uniformity. Experience suggests that when different field teams are employed for preparation of inventory, analysis of data and determining entitlements, the degree of accuracy and uniformity between the teams can’t be assured due to the differences in individual’s understanding of policy provisions and perceptions about eligibility issues. Further, decisions on issues such as economic viability of remaining structure or land is a matter of judgment and field experience. The procedures and
parameters for fieldwork should be discussed and agreed upon prior to start up of actual implementation.

16.4.2 Updating of RP

Project authorities should also identify specific activities that are required for updating of RP, if that is necessary, and set targets for completion of activities prior to start up of field work. Staff with specific tasks assigned to them should be given targets for completion for purposes of monitoring the progress.

16.4.3 Compensation Payment Procedures

Project proponents are directly responsible for all the activities related to resettlement implementation in general and for payment of compensation to the APs in particular. Project proponents will make arrangements for payment of compensation and allowances and should reach agreements with provincial (or District) authorities for compensation payment procedures and schedule.

Additionally, project authorities will be responsible to conduct public information dissemination exercise on compensation, updating the payment data and final reconciliation of payments for reporting to STEA and to donor agencies, where applicable. Project authorities, with assistance from provincial and district authorities, will prepare and finalize final compensation entitlements for each AP. Project management units/Resettlement Units, as the case may be, will remain finally responsible for accuracy of DMS forms, entitlements, compensation assessment and final compensation files.

Local authorities will assist project proponents in making local arrangements for payment, informing the payment schedule to APs, acknowledging the receivers, confirming the amount to be paid and carrying out other administrative procedures.

Monitoring: The assigned staff of project proponents will coordinate compensation payment procedures and supervise the whole process. Project proponents will also inform External Monitoring agency in advance of the compensation payment schedule to enable them to observe payment procedures as part of their monitoring tasks.

Fund Transfer and Payment

After the compensation payment schedules are finalized, the payment procedures will be carried out as follows:

a. Project authorities/RU staff will prepare finalist of APs with their entitlements and post them at public palaces in each district and commune for information of APs and local authorities.

b. Project authorities will prepare compensation payment schedule specifying date and place of compensation payment exercise in each commune and district and inform the APs about the schedule in advance through local authorities. APs should also be informed on the types of documents that they would have to bring with them for purposes of establishing the identity and to receive the money due to them.

c. The required funds should be released by project authorities at least one week in advance of payment schedule and required funds should be carried by the accounting officers of the relevant ministry/project authorities, together with the staff from the RU.

Payment of compensation can be made either in cash or through bank accounts in the joint name of husband and wife. The preferred option for compensation payment should be through bank account. However, where access to bank facilities are not available to APs, compensation payments can be made in cash.

APs should be asked to bring with them then following documents to claim their entitlements:
a. identity cards
b. copy of DMS and ‘summary compensation farms’ given to them by project authorities indicating their entitlements (a sample summary compensation form is presented in Annex 16.1);
c. copy of land use certificate of other acceptable documents to prove ownership or use right to affected assets.

The payment shall be made at public places on assigned date and time. The compensation payment exercise shall be witnessed by local authorities and representatives of APs, local NGOs and mass organizations.

Where the payment of compensation is through bank accounts, project proponents will coordinate with relevant bank-branch on the procedures, opening of bank accounts in the names of APs, and deposit the amounts due to the APs. Project proponents will also post the list of APs and their entitlements at the Bank branch. The APs will receive their pass-books from the bank on the assigned date and complete the formality of attesting signatures.

16.5 Contracting External Monitoring Agency

Prior to start up of resettlement implementation activities, the project proponents will contract an independent agency (consultant, research institutions, NGOs or any other institution) with skills and experience in resettlement to carry out external monitoring of RP implementation and post-implementation evaluation, in accordance with the TOR (See Chapter 13, Annex 13.1). Selected agency will establish Stakeholder Monitoring Group in each district to enable participation of the APs in external monitoring of resettlement implementation.

16.6 Legal Covenants

Implementation of resettlement activities can very broadly be put into two categories based on the type of impacts and distribution of scope of works – those lie with the project authorities, government and other stakeholders, and those lie within the scope of the main contractor.

The First category of resettlement activities pertains to permanent impacts that are identified and are included in the RPs. These include compensation for affected assets, allowances, relocation and income restoration activities. The policy requires that the payment of compensation and allowance, and relocation for a section or part of the project must be completed prior to start-up of civil works on that section or part thereof. Therefore, in accordance with the provisions of the policy, land for civil works should be handed over for civil works only after the completion of resettlement activities, except for the income restoration measures that take significantly longer to implement.

In practice however, it may not always be possible to complete all the resettlement activities either due to the institutional and financial constraints or because of the legal problems relating to land titles, disputes on ownership of assets and other legal proceedings. The responsibility of implementation of these activities falls on the EAs. Attempts should be made to facilitate implementation of resettlement ahead of construction schedule and necessary covenants in the Loan Agreements should be incorporated. Legal covenants in the loan agreement and contract documents are necessary to ensure compliance of the policy by the contractors, executing agencies and supervision consultants. These covenants should clearly specify the responsibilities of EAs to
i) carry out resettlement implementation in accordance with the principles and procedures specified in the Resettlement Plan;

ii) make timely allocation of funds to meet all resettlement costs. In the case of overrun, the project authorities will ensure availability of adequate funds as and when necessary to implement resettlement activities in a timely and efficient manner;

iii) implement resettlement activities in consultation with and participation of key stakeholders including the APs; and

iv) submit to the Bank quarterly progress reports providing full details on the progress of resettlement implementation, target dates for completion of resettlement activities and measures taken to address any issues and problems that may have emerged during the course of the implementation.

The legal covenants should also specify the resettlement component costs that are to be covered out of the loan component.

The Second category of implementation activities is related to the impacts caused by the civil works during the construction stage. These may include: temporary acquisition of private land for storage of material (borrow areas), disposal areas, land for temporary access road to project site, and damage to private assets (land, crops, trees) during construction caused by equipment and machinery. The identification of likely affected areas and the households due to such impacts is extremely difficult during the RP preparation. In most cases these impacts would be temporary in nature. Although, EAs are overall responsible for resettlement implementation, in practice the contractors assist EAs in implementation of some of the resettlement activities. The contractors negotiate with the affected households on the amounts payable for such impacts and these costs are implicitly included in the bid. It is therefore, necessary that the contract documents clearly identify the responsibilities of the main contractors, and the principles that would govern these mitigation measures. These conditions should be specified in the Specification Documents and in Bill of Quantities for inclusion in the Tender Documents. Review of Bidding Documents should be done carefully by the PMUs or RUs to ensure that all the necessary conditions are included in the contract documents. The conditions may vary with the type and scale of projects. However, the following specific condition are recommended for inclusion on the contract documents:

a. Any damage to crops and other fixed assets must be fully compensated at replacement cost based on the principle specified in the RP.

b. Assets which are only temporarily affected or inoperable, will be compensated based on the negotiated settlement between the contractor and the affected households, provided that such assets or properties are required by the project for a maximum of 6 months. In case the assets are required by the project for periods longer than six months, the amount of compensation should be re-negotiated with the owner of said property.

c. All damages to the fixed assets, land and structures during the civil works shall be set right at no cost to the owner.

d. The contractors should assist project proponents and facilitate implementation of resettlement activities, where necessary, to expedite completion of civil works.

The Resettlement Policy places emphasis on income restorations to severally affected by the project. One of the measures that can be taken is to give priority to the local people in jobs during the construction phase. Although contractors generally employ local population for unskilled and semi-skilled work, it is a good practice to specify this in the contract document.
Additionally, the Terms of Reference (TOR) for the Supervision Consultant must include social responsibilities. It is advisable to recommend inclusion of a social scientist in the supervision consultant team for projects with major resettlement issues. The provisions of the contract documents for supervision consultants should include contractual responsibilities such as:

“The Consultant will provide the following specific services…’Ensuring that the Works are executed in accordance with all provisions of the Contract, including appropriate mitigation measures, following the principles specified in the RP, for permanent or temporary impacts on private assets, temporary acquisition of land for borrow areas, temporary access roads, damages to private land, crops and other fixed assets.”

To ensure inclusion of the above conditions in the contract documents, the contract documents should be checked by the project proponents prior to issuance of approval for the civil works.
Annex to Chapter 16
CHAPTER 17: Resettlement Implementation

17.1 Sequence of Implementation Activities

Implementation of resettlement plans is a very different concept than simply preparing the plan that may be required and found acceptable by project proponents, GoL PDR or a donor. Displacement by a project and relocation is an experience that cuts across all aspects of a person's social, cultural and economic patterns. Administrative, legal and financial considerations can play critical part and result in inequality in the resettlement options offered to affected persons in a project. Even the few projects that have been carried out to date in Lao PDR provide some guidance on the strengths and weaknesses of the resettlement options considered, and the issues that are not taken into account at the design and/or implementation stages.

For successful implementation of resettlement activities, close supervision and monitoring by the project proponents is necessary. To facilitate management of resettlement implementation, project authorities should identify specific activities that are necessary for successful implementation and the time-frame required for completion of each activity. This should be either represented through a chart or table or any other form to facilitate regular monitoring. A sample of sequence of activities determined for a waterways project is shown in Annex 17.1.

17.2 Implementation Schedule

Implementation schedule should be revised at the beginning of resettlement implementation with targets specified for completion of each of the activity. A lose watch should be kept on activities that are on critical path and likely to be critical in completion of resettlement. Planning and development of resettlement sites and economic rehabilitation are the most complex set of activities that generally result in delays. Additionally, delays can also be caused due to the problems such as conflicting claims over land ownership and land use rights issues. Implementation schedule should be revised when appropriate and in extraordinary circumstances. Repeated revisions will dilute the importance of the exercise.

17.3 Monitoring and Supervision

Internal monitoring and supervision by project proponents and external monitoring of resettlement implementation by the contracted agency are the most critical and important exercised that can make implementation successful, if carried out regularly and earnestly. The monitoring will identify any problems in the field operation and alert authorities to take appropriate actions in a timely fashion. A sample of supervision chart for power transmission line is also provided in Annex 17.2.

17.4 Flow of Funds

Lack of budgetary allocation and timely availability of funds for resettlement are one of the major reasons for failure of resettlement in most projects. Project authorities must ensure that required funds are available to meet resettlement costs according to the implementation schedule.
Annex to Chapter 17
### Annex 17.1: Resettlement Activities and Targets

<table>
<thead>
<tr>
<th>No.</th>
<th>RAP implementation Activities</th>
<th>Canal A</th>
<th>Canal B</th>
<th>Canal C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of APs</td>
<td>643</td>
<td>504</td>
<td>1341</td>
</tr>
<tr>
<td></td>
<td>APs received compensation</td>
<td>639</td>
<td>504</td>
<td>1341</td>
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<tr>
<td>1</td>
<td>Demarcation and Stake-out</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>DMS and finalization of Inventory</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>Distribution of PIB</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>Finalization of Current Market Rates</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>5</td>
<td>Data Processing</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6</td>
<td>Preparation of Linear maps</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7</td>
<td>Finalization of entitlements to each AP</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>8</td>
<td>Final rechecking of entitlements and cost estimates and summary by commune and districts</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>9</td>
<td>Public information and consultation on Entitlements</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>10</td>
<td>Distribution of individual entitlement forms</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
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<td>11</td>
<td>Reconfirmation of options for relocation</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>(self, group), cash or land-for-land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Compensation payment:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>a. First Installment 70%</td>
<td>4 remain.</td>
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<td>X</td>
</tr>
<tr>
<td></td>
<td>b. Second Installment 30%</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>c. Repair costs &amp; number of APs</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>146</td>
<td>6</td>
<td>31</td>
</tr>
<tr>
<td>13</td>
<td>Identification and finalization of RS in consultation with APs</td>
<td>X</td>
<td>X</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>2 sites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Finalization of RS designs, cost estimates and ratification by management</td>
<td>X</td>
<td>X</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>21 APs</td>
<td>54 APs</td>
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<td></td>
</tr>
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<td>No.</td>
<td>RP implementation Activities</td>
<td>Canal A</td>
<td>Canal B</td>
<td>Canal C</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>15</td>
<td>Public consultation on RS design</td>
<td>X</td>
<td>X</td>
<td>NA</td>
</tr>
<tr>
<td>16</td>
<td>RS land transfer</td>
<td>X</td>
<td>X</td>
<td>NA</td>
</tr>
<tr>
<td>17</td>
<td>Development of RS, with power and water connections</td>
<td>Electric</td>
<td>Elect, water</td>
<td>NA</td>
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<tr>
<td>18</td>
<td>Public information on RS development and relocation schedule</td>
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<td>X</td>
<td>NA</td>
</tr>
<tr>
<td>19</td>
<td>Reorganization and relocation to RS</td>
<td>X</td>
<td>X</td>
<td>NA</td>
</tr>
<tr>
<td>20</td>
<td>Award of LURC and Building Permits to APs</td>
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<td>X</td>
<td>NA</td>
</tr>
<tr>
<td>21</td>
<td>Handing over the site for civil works</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>22</td>
<td>Rehabilitation Assistance:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. List and number of entitled APs:</td>
<td>116</td>
<td>305</td>
<td>231</td>
</tr>
<tr>
<td></td>
<td>a.1. Severe loss of business</td>
<td>18</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>a.2. Severe loss of agriculture income</td>
<td>0</td>
<td>168</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>a.3. Relocating APs due to loss of houses</td>
<td>98</td>
<td>123</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>b. Consultation with APs on the type of assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Finalization of the rehabilitation types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Number of APs opted for training</td>
<td>42</td>
<td>29</td>
<td>63</td>
</tr>
<tr>
<td>24</td>
<td>APs opted for farming inputs or Other types of assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Preparation of report on rehabilitation for review &amp; approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Rehabilitation implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Rechecking of DMS for repair allowance and balance compensation</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>for unviable remaining portion &amp; APs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Rechecking of DMS for balance compensation for unviable remaining land &amp; APs</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
PART V
Sector-Specific Issues in Resettlement
CHAPTER 18: Resettlement in Linear Projects

18.1 Introduction

Because of the potential severity of the impacts they may produce, dam and reservoir projects typically have been a major focus of resettlement concern in Lao PDR. However, over the past few years growing emphasis on infrastructure development has led to an increasing focus on “linear projects” — mainly on roads and highways and transmission lines. These and other linear projects such as railways, pipelines, or irrigation canals - are characterized by a long but relatively narrow corridor of impacts. Because alignments of these corridors often can be shifted to minimize socioeconomic impact, and because narrow corridors tend to require only partial acquisition of land and other assets, the resettlement impacts of linear projects often are less severe.

Even in cases of relatively minor impact, however, linear projects can pose unique challenges in resettlement planning. Assessing and remedying partial (and often temporary) impacts can be inordinately complex. Projects involving roads or railways frequently necessitate resettlement of squatters or encroachers, which can raise legal and political sensitivities in some areas. Consultation and participation may be difficult if the project stretches across more than one cultural or linguistic area. And issues of organizational coordination are likely to arise if linear projects stretch between or among multiple administrative units. This chapter offers technical guidance for overcoming these and other constraints to resettlement planning for linear projects.

18.2 Characteristics of Linear Resettlement

Specific characteristics of linear projects are summarized below:

Partial Land Acquisition: Land acquisition in linear projects often consists of a narrow strip along property frontages that, in most cases, does not require relocation of occupants or users, and typically does not negate the economic viability of land holdings. Where people do have to relocate, this often can be done in the same area (sometimes even on the same plot of land) with minor inconvenience. Even relatively minor land acquisition can produce significant hardships, however, especially when linear projects dissect existing holdings.

Dispersed Dislocation: Linear projects typically displace dispersed and scattered populations living along the corridor of impact, rather than entire communities or concentrated groups of people. This can produce problems of coordination in resettlement planning across administrative jurisdictions, and problems of communication and consultation with affected people. There are exceptions to this pattern of dispersed dislocation, however, notable when linear projects such as highways or railways dissect entire communities and impede access to key resources.

Temporary Impacts: In linear projects, dislocation may be temporary, allowing people to return once construction is finished. Of course, subsistence allowances or other forms of assistance are necessary during the construction and restoration period. When civil works are prolonged over a long period, relocation of families and businesses to a permanent site may be necessary, and should be considered in consultation with the affected population.
18.3 Determining the Corridor of Impact

Road and Highway Corridors

Road and highway projects generally fall within one of two categories: building new roads, or improving existing ones. This distinction is relevant in terms of land acquisition. Opening up a corridor for a new road will generally require substantial land acquisition, and the negative impacts are usually more severe than in the case of road improvement.

Existing roads usually have an established Right of Way (ROW). Although new land may need to be acquired for bypasses, curve straightening, or roadside improvements, new land acquisition is likely to be more modest than in projects requiring completely new corridors. Even where there is little or no formal land acquisition, displacement may nevertheless take place – sometimes on a large scale – within an existing ROW. The provisions of the Resettlement Policy would still apply on people affected by widening or improvements of roads and highways within the ROW and RP must mitigate against negative impacts upon squatters and encroachers on public land. Thus, while the scale of resettlement may be different in the two situations, challenges related to resettlement have to be addressed in each.

Road corridors also constitute economic corridors; many people depend on proximity to a road in order to carry out economic activities. While road construction may have negative impacts on those losing land or other assets, it also contributes to the economic development of an area (most immediately evident in rising property values for land adjacent to the road). Road construction typically contributes to concentration of population along the corridor, since people are eager to take advantage of the economic opportunities offered by the road.

Resettlement impacts generally are confined within a fairly narrow corridor of impact, which is the area where it is unsafe or not permitted for people to occupy structures, carry out business activities, or to cultivate land. The width of this corridor varies depending upon the type of road. It may be less than the legal ROW, but is typically wider than the minimum required for the pavement, shoulders, and roadside improvements (e.g., parking zones, bus stops). For purposes of resettlement planning, the corridor of impact includes the immediate safety zone and any areas subject to direct impacts on people’s livelihood as determined through surveys. Whatever has to be removed or demolished, whether permanently or temporarily, is by definition inside a corridor of impact, and those suffering losses caused by the project should be assisted. A safety zone for a good road with a high volume of fast-moving traffic may be considerably wider than what is required for a sporadically traveled rural road.

Road and highway projects also have very different impacts in rural and urban areas, since population density and socioeconomic diversity tend to be higher in urban settings (see also the Chapter 19 on Resettlement in Urban Projects). While physical dislocation in rural settings often can be avoided by moving homes back a short distance, this is more difficult in an urban area because the plot sizes are often relatively smaller. Additionally the types of construction, usually permanent or semi-permanent, in urban areas makes minor shifting of structures difficult without major repairs.

Economic activities take place along the road both in urban and rural areas, but the impact on street vendors and shopkeepers is generally higher in urban areas. Urban road improvements also may generate significant indirect effects. A bypass around a populated area, for example, may result in local merchants losing their customer base. Scope of Social Assessment (SA)
should extend beyond impacts directly related to land acquisition, and should attempt to identify opportunities to mitigate indirect impacts as well.

The rapid appreciation in roadside property values following road construction or rehabilitation may produce another kind of indirect impact. As property values increase, some poor families and tenants might be put at risk of losing their land or homes as a result of new property taxes, higher rents, or other obligations unaffordable to them. It is good practice to try to minimize such risks. However, by and large, the benefits of higher values that accrue to roadside assets outweigh such negative indirect impacts.

**Water, Sanitation, Gas and Oil Pipelines**

There are several reasons why pipelines typically do not require much land acquisition or resettlement:

- The corridor is generally narrow, typically 6-18 meters in width.
- Many are built within an existing road ROW, to facilitate access and maintenance.
- Many are subterranean, meaning that impacts may be largely temporary.
- And the path alignment can be easily modified to avoid and minimize unnecessary displacement.

However, more significant land acquisition might be necessary for primary infrastructure, installation of pumping stations, treatment plants, access roads or storage facilities associated with these projects. An integral approach linking these ancillary facilities is recommended to identify the full range of negative impacts.

Unlike road and railway projects, establishing a pipeline ROW does not generally require transfer of land ownership. However, restrictions are placed on the use of the land within the corridor; pipelines might permanently impose restrictions on building structures and constrain activities such as forestry, or cultivation of crops that require plowing. Such limitations upon use serve to minimize physical displacement. Because they can produce severe impacts upon incomes or living standards, however, limitations upon use warrant compensation or other forms of assistance. Easement fees and payment for any crop damages, for example, are an appropriate way to compensate those whose fields may be subject to periodic intrusion for maintenance purposes.

Security and safety considerations frequently preclude further minimization of displacement. Safety reasons may require displacement of those located in the vicinity of the pipeline corridor, where there is a danger of oil leaks, gas escape, or explosions. In many cases, the need to protect pipelines from vandalism or sabotage may lead to design of perimeters of exclusion. In such cases, it is essential not to try to minimize resettlement falsely, but to ensure that proper safety measures are observed even where it entails displacement of larger groups of people.

In urban areas, construction or rehabilitation of water and sanitation systems also tend to generate significant levels of displacement, especially in slums and risk-prone areas. In cases where very large numbers of people have to be relocated, or entire communities are to be disrupted, resettlement plans should be considered as spatially extended development programs whose benefits as well as negative impacts will involve entire communities.
Like other linear projects, pipelines can cause unanticipated indirect displacement. Pipelines crossing through isolated forests, natural parks or indigenous reserves, for example, can cause negative impacts upon people deriving livelihoods from these resources. In these cases, careful consideration of mid-term effects is recommended before taking irreversible decisions regarding alignments. Participatory assessment of environmental and social risks is highly recommended, along with adoption of a mitigation action plan.

Irrigation canals are similar to pipelines in many respects. But resettlement of rural population as a result of canal construction or improvement also has distinctive features. When farmers losing land also receive benefits from the new irrigation infrastructure, for example, there may be unique opportunities to optimize resettlement and establish an equitable distribution of costs and benefits. Land reform or land consolidation schemes may be possible, by which families now facing shortages in water supply can be relocated to plots vacated by others in exchange for irrigation benefits making their remaining holdings far more productive.

Transmission Lines

Depending on technical specifications, transmission lines require a corridor of impact ranging from 12 to 25 meters wide, or even more in the case of high voltage electric lines (500 KV or more). Though the impact of a particular tower is likely to be slight, especially in rural areas, transmission lines extending hundreds of kilometers may nonetheless produce a significant level of aggregate displacement, especially if the lines cannot avoid more heavily populated areas.

Transmission lines themselves do not require land acquisition (except for towers). Instead, a right-of-way is established imposing some height restrictions upon use, especially for trees and construction of structures. Depending upon local laws and regulations, practices vary in regard to structures underneath transmission lines. Some countries expressly prohibit digging or mining near towers, while activities such as cattle ranching are permitted.

Due to safety reasons and unresolved environmental issues, many countries do not permit residential use of land underneath or near transmission lines. Subject to various restrictions, some countries do allow people to live under transmission lines. In some cases, restrictions on use may extend far beyond ROW, depending upon electromagnetic fields, interference with communications, or other factors.

While construction of the transmission line does not require much purchase of land, construction of associated works such as power substations building or widening of access roads, might require significant displacement. During construction phase access to construction sites for towers may cause temporary impacts on assets and crops. In such cases an easement fee combined with payment for any crop damage may be an appropriate way to compensate for periodic access. In most cases, no compensation is paid for a decrease in non-agricultural property values associated with construction of transmission lines. However, payment of a lump sum assistance in cash is advised in such cases. Where small landholdings are dissected by a transmission line with each part being rendered unviable for economic use, acquisition of entire land holding and payment of compensation at replacement cost is recommended.
Railways

Depending on the type of train and transportation technology, railway corridors typically range between 16 to 24 meters. In many instances, existing railway corridors are invaded by squatters because they are among the most accessible urban spaces, and because they have little value for other purposes. This feature is one of the main reasons why displacement of population is so high in the cases of rehabilitation or privatization of railways.

As with gas or oil pipelines, there are valid safety and security reasons for restricting human habitation within railway corridors; in some situations it may be inappropriate to minimize displacement if that action poses risks to local residents or to those on passing trains. On the other hand, the established ROW in railway corridors is often wider than necessary. Under such conditions, it may be possible to move existing residents a few meters back while providing adequate safety measures such as fences, or pedestrian overpasses (or underpasses). In contrast to roadways, railway construction often causes a depreciation of property values and deterioration of living conditions in residential areas. Project designs should include efforts to identify and avoid or mitigate such indirect effects.

In all forms of linear resettlement, social assessment and case-by-case analysis of impacts is recommended, even when impacts are predominantly partial. In many cases, even slight land loss might be critical to families living at the poverty margin or below. Alternatively, linear projects may cut across areas where land has been fractionated into small supplemental garden plots for self-consumption. Experience has shown that under certain circumstances, households prefer not to move if additional assistance for complementary economic activities is granted.

18.4 Impact upon Economic Activities and Squatters

Frequently, widening of roads and railways displaces business enterprises located along (or within) the right-of-way. At the same time, it creates economic opportunities for others. Project preparation and design should consider such impacts, and assess whether benefits are equitably distributed. Displacement may affect poor people disproportionately, while the more resourceful may have the means to take advantage of economic opportunities. Furthermore, losses usually occur immediately as a result of land acquisition and project construction while economic opportunities are likely to arise much later. Under such uncertainty, a reasonable approach is to concentrate on mitigation/compensation of economic losses that will be caused by the project, with special attention to those among the affected population with subsistence activities who may be threatened by a loss of viability.

18.4.1 Informal traders and mobile vendors

Improving an existing road may require space previously occupied by informal traders, mobile vendors and others whose living depends upon access to passersby. The project should ensure that there is continued opportunity and access to clients and suppliers for these weaker groups. Disruption of their activities does not only affect the people who lose their business opportunities; it also affects the people who are the users of the goods and services provided. Economic activities should be relocated in planned shopping areas, on open shoulders, and other commercial facilities along the transport corridors while ensuring safety and flow of traffic.
Different solutions may be found for different categories of affected people. In the case of truly mobile vendors, all that may be required is to ensure that there is available space where they can continue to carry out their business. Those who will lose permanent or semi-permanent structures must be fully compensated, or assisted with moving and rebuilding in a new place. Such relocation should be at no cost to the displaced population. If necessary, the resettlement plan should make provisions for subsistence allowances during the transition period until recovery of prior economic activity level. Where street vendors with fixed structures have officially recognized licenses, they are entitled to relocation and restitution of their activity, with similar access to clients and markets.

18.4.2 Squatters and Encroachers

Because transport corridors are also economic corridors, and because governments often fail to exclude private use of public rights-of-way, projects involving road or railway improvements frequently displace squatters and encroachers. Because they typically have no claim to resettlement assistance under local laws, local officials see provision of any assistance as encouraging or rewarding what is seen to be illegal use or occupation of public property. They are understandably worried about setting precedents that will establish expensive new entitlements, and may undermine legal property systems by encouraging a new influx of public land invaders, particularly by urban migrants. It must however, be noted that the official views and practices are not always unequivocal or consistent. Following specific actions are recommended to address issues related to squatters:

- An early census covering the entire planned corridor of impact is essential in establishing a baseline for the existing population enabling creation of a documented inventory of existing assets such as structures and trees that may be affected.
- Environmental and socioeconomic surveys should be coordinated and integrated with economic and technical considerations, and guide the design process to minimize negative impacts.
- Based on these surveys, a clear cut-off date should be agreed upon, representing the date used to determine eligibility to assistance. This protects the project from fraudulent or speculative claims.
- The needs of more vulnerable groups should be safeguarded, and the economic viability of households should not be threatened as a result of the project.
- A clear distinction should be made between private landowners on the one hand, and squatters and encroachers on the other, in terms of entitlements. Squatters and encroachers are not automatically entitled to compensation under the national Policy on Resettlement and Compensation, but may be given other forms of assistance.
- A distinction should also be made between squatters or encroachers whose livelihoods would be significantly diminished, and encroachers augmenting their private holdings by extending cultivation into the right of way. They are to be permitted to harvest existing crops, but are not eligible for other forms of assistance.

18.5 Critical Issues in Linear Projects

18.5.1 Coordination and Consultation with Populations

By their nature, linear projects usually involve coordination of planning and implementation among a very large number of stakeholders over considerable distances. The fact that roads,
pipelines, transmission lines and other types of linear projects typically run hundreds of kilometers in length, means that they may take place within several distinct geographical areas, and involve different political and jurisdictional frameworks. In some cases they may even cross from one country into another. Different ethnic or language groups may be involved, and the project may involve very different socioeconomic settings, such as when a single road project traverses agricultural plains, urban settings, desert areas, forests and highlands. Social assessment is recommended as a method for incorporating the circumstances and perceptions of diverse stakeholders into resettlement planning.

In such diverse settings, consultation, public information, and local participation in the project needs to be organized differently than in more localized projects. Typically, only a few of the people in any one area along the potential corridor may be involved or affected by the project. A community-based approach may therefore not be sufficient or appropriate in terms of consultation and involvement of project affected persons. Because of the dispersed nature of the affected persons, it is also not realistic to expect a sense of common identity among them, or for different people to act as one collective body, agreeing to being represented by people with whom they may not have anything in common. Consultative groups, grievance bodies, and participatory implementation units should be set up with this in mind, ensuring that different categories of stakeholders are adequately represented.

When a project crosses from administrative jurisdiction into another, overall coordination and decision making will have to take account of these different entities’ constraints and capacities, and establish suitable mechanisms for allocating responsibilities, especially for determination of financial responsibilities and for timely delivery of compensation and other forms of assistance.

A key principle is that no civil works should be undertaken on any stretch of the alignment before land acquisition has been completed, and compensation or assistance carried out according to an agreed resettlement plan. Unless the various components of the project are carefully coordinated and implemented according to plan, project authorities often come under strong pressure to give civil contractors access to stretches of the alignment before all required work under the resettlement plan has been undertaken, mainly to avoid any financial liability such as in claims for demurrage payments. This may however, prove much more costly in the long run.

Even with the best coordinated approach among the various units of the project authorities, however, civil works are sometimes delayed by public protests and complaints often representing legitimate claims and grievances. Most of these may be caused due to lack of communication and proper consultation. It is therefore essential to consult with local community groups, NGOs, and others. By involving local stakeholders from the earliest stages, costly misunderstandings can be avoided. Experience also shows that careful consultation and coordination with local groups is essential to develop an appropriate framework for entitlements, and to get people’s acceptance for this framework. The additional administrative and financial cost of undertaking detailed consultation and coordination should be regarded as investments contributing to smoother implementation, greater ownership, and improved project sustainability.
18.5.2 Compensation

As explained in earlier sections, the impacts of most linear projects are generally marginal while the benefits that they may accrue to APs, may be significant. Using this as an argument, many authorities spend most of their time on persuading, encourage, or even bring pressure on APs to forego their entitlements and contribute their assets ‘voluntarily’ in public interest. In most cases, neither such acts are voluntary, nor are such decisions taken by APs with full knowledge of their entitlements. APs have the right to compensation and other assistance provided for in the Resettlement Policy, Decree and the Implementation Regulations, and any attempt to deny these APs their rightful entitlements is unlawful. Further, experience from various projects carried out in Lao PDR suggest that only those without any links to political groups are generally ended up contributing their assets. Voluntary contribution, as a principle may be acceptable only if the following conditions are met satisfactorily:

- APs are only marginally affected such that only their part of land and/or structures affected and the remaining land and/or structures remain viable for continued use;
- APs are not displaced;
- APs are not affected by loss of incomes, businesses or employment;
- APs are fully aware of their losses and their entitlements for compensation, allowances and rehabilitation assistance;
- Affected persons are direct beneficiary of the project; and
- The consultation by project authorities us carried out in an open and transparent manner and decision of voluntary contribution of affected assets by APs is taken without any pressure, direct or indirect, by project authorities.

Project authorities are also required to prepare detailed documentary evidence to demonstrate that the APs have been fully informed of their entitlements, participation of NGOs and civil society during consultation with APs is ensured, and all decisions by APs are taken in an open and transparent manner in the presence of community groups.

18.5.3 Monitoring and Supervision

By its very nature, coordination, monitoring and supervision of implementation activities in linear projects in complex and require vigilance and appropriate mechanism for reporting and recording progress. Selected sample of monitoring procedures in transmission lines is provided in Annex 18.1.

18.6 Good Practice in Planning and Implementation

Screening and Assessments: Minimizing Displacement
The Policy and the Decree on resettlement require that displacement of people be minimized. To ensure minimization in linear projects, it is essential to undertake early ISA and screening of the entire corridor or corridors proposed for the project. Such screening should be carried out in close collaboration with those responsible for engineering designs and overall project management. With early screening, it is often possible to shift the alignment of the proposed road, transmission line or pipeline, thereby minimizing negative impacts. Detailed strip maps documenting existing land usage, economic activities, and environmental concerns should therefore be prepared covering the entire corridor, in order to incorporate the information in the planning and final designs.
Effective screening usually entails consultation with potentially affected local people as well as local officials. To be meaningful, the consultation process should ensure that different stakeholders are given an opportunity to consider options and state their opinion. In the process, it should be documented how views of the affected populations are taken into account in project designs. The consultative screening process can provide valuable information related to issues such as:

- shift of corridor, from marginal adjustments to choice of alternative routes
- whether to construct a bypass around a populated area in a road project
- where to place underpasses or overpasses
- how safety measures can be introduced in particular areas

Census and Surveys
Unlike in most other projects, census and survey procedures for projects with linear resettlement differ in one important respect: it is impossible to determine final alignments, or the precise corridors of impact that project will produce over hundreds of kilometers until after the completion of feasibility studies and final technical designs. The remedy in such circumstances is to extend the census and surveys to include a maximum envelope of impact that is likely to be wider than the final corridor. Identifying and enumerating the total potentially affected population and their assets provides information relevant to the final design process, and establishes a basis for entitlements, protecting the project from fraudulent or opportunistic resettlement claims. Of course, only those actually affected following final design would actually be eligible for resettlement assistance. The partial land acquisition found in many linear projects also poses a challenge to accurate surveys. It often is difficult to assess the economic viability of the remaining area for continued use. While categories of impact (e.g., more than 25% of land taken) can be useful in devising entitlements, case-by-case assessment is highly recommended to ensure that households with particular vulnerabilities are not overlooked.

Determining Entitlements
Early determination of categories of impacts and entitlements to compensation and assistance is important in linear projects with a phased approach to civil works. Though it may be impossible to identify and enumerate the particular persons to be affected by the project, early screening can reliably identify most of the kinds of impacts that will be relevant. In linear projects, the categorical entitlements should also address forms of assistance to be given to people subject to partial impacts on land or structures. In determining entitlements and assistance to the affected population, it is often useful to distinguish between owners of private property; squatters and encroachers on public land, and tenants, whether of agricultural land, houses, or other kinds. Access to village commons or other land subject to traditional forms of tenure also needs to be considered in an entitlement framework.

Phasing of Civil Works
As discussed above, resettlement impacts cannot be determined until final designs specify the corridor of impact. Final designs are unlikely to be complete at project startup; in linear projects, final designs often are completed in stages. Civil works may well start along some areas of the corridor a year or two before designs are complete for the entire alignment. If project implementation is to be phased, it is advisable that actual compensation and resettlement not take place several years ahead of the actual construction phase for any particular segment of the project. There are several reasons for this:
people are likely to resent being asked to move long before the land is actually required
The people displaced, or others, are likely to reoccupy the space required if too much time passes between relocation and construction
if compensation or assistance is paid several years before people actually move, their situation may have changed, and the assistance is likely to be regarded as insufficient. Children will have come of age; the money will have been spent; and prices of replacement land will have risen.

Project authorities should strive for careful coordination to ensure that there are no delays in resettlement activities holding up civil works, or that no civil works take place on any stretch of the corridor before appropriate resettlement activities have been undertaken.

18.7 Summary of Key Elements

- Early and iterative assessment of alternative alignments and technical designs are the most useful tools to reduce displacement to a minimum.
- When displacement is unavoidable, on-site relocation, or reorganization, by pushing structures back often is the simplest and most efficient way to diminish the severity of impacts.
- When on-site reorganization is impossible, relocation to the nearest feasible site often is desirable, since increasing distance is likely to increase socioeconomic disruption.
- Understanding why people live within a right of way or along a corridor often is the most important element in designing successful resettlement operations.
- Finding a compromise between APs’ needs (e.g., access to resources or clients) and projects’ needs (e.g., safe and efficient transport) often is the key to assessing project feasibility and costs.
- When a precise corridor cannot be specified, doing a census/survey over the maximum envelope of impact is the best way to identify categories of impact, estimate resettlement costs, and prevent fraudulent claims.
- Use of non-essential lands within or adjacent to the existing right-of-way to relocate displaced population will lower costs and improve resettlement outcomes.
- Establishing a cut-off date for eligibility as soon as designs are ready is the most efficient way to prevent fraudulent claims for assistance.
- When linear projects displace a small number of people from dispersed areas, provision of replacement houses and plots within available development areas will simplify resettlement process while increasing the satisfaction of each affected family.
- If the affected population is dispersed, negotiation with each family or economic unit may be more effective than community representation.
- Whenever possible, those adversely affected should be made project beneficiaries (e.g., provision of energy in case of transmission lines, access to transport in case of rural roads, access to serviced plots in irrigation projects, or access to water and improved hygienic conditions in water and sanitation projects).
- Distributing resettlement costs among major project beneficiaries through tariffs, user fees, or other devices can reduce the financial responsibility of the project agency while encouraging more equitable development patterns.
- Permitting continued seasonal use of non-essential areas within the right-of-way and in areas under transmission lines may be especially important to poorest segments of the society.
- Incorporation of project bays, parking spaces, etc., within the main designs will greatly facilitate the relocation of street vendors and informal activities while assuring safety standards for roads and railway users.
CHAPTER 19: Resettlement in Urban Projects

19.1 Context of Urban Resettlement

Urban resettlement is characterized by diversity and high density of people and economic activities. High population density also creates concentrated demand for goods and services, concentrated demand for land (and other natural resources), and concentrated problems of pollution and disposal. The consequence of density is that projects requiring relatively little land acquisition in urban areas can generate displacement of a relatively great scale, requiring resettlement at relatively great cost.

The diversity of life in urban areas sustains and promotes urban density; wide disparities in land use; varying income levels, standards of living, length of residence and degree of mobility; or ethnic or regional affiliation. In terms of displacement and resettlement, land acquisition in urban areas can generate a much broader array of adverse impacts. Acquisition of even a small portion of assets may render remaining assets economically unviable and may result in significant direct or indirect impacts on peoples’ incomes and living standards.

To address problems associated with urban displacement, resettlement plans must recognize the dynamic process of urbanization, in which density and diversity increase rapidly, often in uneven, unplanned and unsanctioned ways. Most vulnerable areas are inhabited by squatters, low-income families and new migrants to the cities and are characterized by thriving informal economic activities providing employment and jobs to the inhabitants in proximity to their residence, and a place for residence to the new migrants. These areas are also characterized by unplanned growth, lack of access to basic infrastructure, and mixed land use. In many cities, this rapid and disorganized process of change together with intra-urban movement of middle and higher income groups and changing land use patterns produces an increased need for urban planning - and urban displacement. Urban development, which quite often involves involuntary land acquisition in pursuit of broad social objectives require provision of compensation and rehabilitation assistance to segments of the population lacking legally recognized rights. Approaches recommended for managing or resolving such issues are described below:

19.2 Importance of Initial Planning

Early planning for urban resettlement is especially important in urban projects. Because resettlement costs can be very high in densely populated urban areas, there are simple efficiency reasons to emphasize early planning exercise. Other reasons follow from the fact that urban areas typically are characterized by dense and diverse information flows. Official or unofficial "word" of project plans can provoke a migratory invasion.

Minimizing Displacement

Project design should minimize displacement in urban as well as rural areas. In urban settings minimizing very costly displacement is more likely to simultaneously reduce overall project costs. Shifting project alignments or siting criteria can avoid concentrated pockets of population with only a marginal impact upon technical project performance. Similarly, changes in construction methods or design parameters can reduce displacement.

It is recommended that alternatives in technical design should be sought at the initial stages of project design to minimize adverse impacts, and resultant resettlement costs. The design alternatives should be evaluated against their impacts on the number of people and assets, and costs. The resettlement costs are not directly proportional to the number of people affected. The costs generally depend on the degree and type of impacts i.e. whether the impact of the project is marginal with partial impact on assets or whether it results in
displacement of people. In an urban environment, resettlement costs of a few displacement households is likely to be much higher than payment of compensation to a large number of households affected only marginally and not displaced.

**Fraudulent Encroachment**
Because property rights are uncertain and since the policy requires extension of resettlement provisions to urban squatters living on public lands, the desire to obtain eligibility for compensation or other benefits can spur an invasion into areas slated for land acquisition (or into identified resettlement sites). Especially in urban areas, it is crucial to establish an official cut-off date for eligibility. To prevent fraudulent claims from those arriving after the cut-off date, a census survey of the affected area is essential to identify all eligible residents and structures, and as many compensable fixed assets as is feasible. The census survey should be carried out at the initial stages of project identification and as soon as tentative location and physical boundaries of the project can be established. If final alignments are not known, it is advisable to survey a wider area than may ultimately be acquired. If land acquisition is to affect commercial or industrial enterprises, then it also is important to establish employment and ownership rosters, with wages and incomes if feasible. It may also be possible to discourage fraudulent encroachment by assembling a photographic record of potential sites, or by providing incentives for existing residents to protect sites from invasion.

Because urban land prices often are volatile, identification of resettlement sites can spur land or housing speculation, especially if there are delays between preliminary identification and actual acquisition. In some circumstances, especially where vested interest and speculative forces are likely to take advantage, and where local laws governing land management permit, plans for a temporary freeze on land or housing prices may be advisable.

**Public Responsiveness**
Often project authorities, for technical or economic optimality reasons, are tempted to restrict the flow of project-related information, or to diminish opportunities for public participation. Especially in urban areas, however, it is fallacious to believe that the absence of official project information will squelch public discussion; instead, official silence often tends to breed community suspicion and enhances the value of unofficial information. The consultation and participation ensures a two-way flow of project information, providing opportunities to improve project design, as well as to maintain a civic atmosphere more conducive to successful implementation. Participatory processes should continue throughout the project. But the time and effort invested in early planning stages to solicit the advice and cooperation of those to be affected, and to build community support for project-related benefits, often yields significant dividends in improved project design, reduced displacement, diminished community resistance, and greater community support in operating or maintaining project related facilities or services. Adequate mechanism needs to be developed at the early stages of project design to establish public consultation and participation process. Specific steps that need to be taken include:

(i) Dissemination of information on the project objectives and the types of impacts to the affected community within the delineated project area;
(ii) finalization and public display of the census list;
(iii) dissemination of information on the salient features of the compensation policy and entitlements, and implementation schedule; and
(iv) formulation of community based resettlement coordination committee to liaison with project resettlement agency.
19.3 Resettlement of Urban Squatters

The treatment of squatters is one of the most controversial issues in urban resettlement. From a pure legal point of view, providing entitlements to squatters is illegal by definition, adds enormously to project costs, and encourages further unauthorized occupation of government lands.

Poorly documented property rights in many urban areas make it difficult if not impossible to determine those with rights for occupancy or use. In fact, not all “squatters” are opportunistically invade unoccupied land; instead, many are longtime residents who have purchased or inherited residential lots or other urban parcels, but have not been able to obtain legal title because the process is too expensive or too cumbersome. Most local laws do not recognize usufruct and customary rights of people, and tenants and no provisions are made for compensation. Urban displacement may disproportionately affect these categories of urban poor. Because the resettlement policy embraces poverty alleviation goals, displacement of urban poor should be seen as an opportunity to sustainable urban development of squatter and low-income communities and rationalization of land-use.

Entitlements to People Without Tenure Security

The policy does not insist upon legal entitlement of those squatting upon public land to compensation for land. Instead, it requires compensation for structures or other fixed improvements upon the land, plus any provisions for residential relocation (and economic rehabilitation, if applicable) necessary to restore displaced squatters to their previous living standards. People designated as squatters because they lack title to land they have purchased or inherited should be treated as fully and legally entitled to land compensation and other benefits. In practice, the occupancy prior to an explicit cut-off date should be treated as the basis for entitlement. For purposes of formulating compensation entitlements it is recommended that census should identify the complex nature of tenure and title arrangements of groups of people with weaker titles and tenuous rights and make inventory of all affected assets as follows:

(i) Squatters with or without some proof of ownership (e.g., submission of receipts, payment of taxes, community testimony);
(ii) Squatters on public land such as drains, river banks and footpaths;
(iii) Squatters on residential, commercial or industrial land;
(iv) Tenants;
(v) Persons with usufruct and customary rights, including indigenous people;
(vi) Length of stay in the area;
(vii) Types of tenure right, lease or title arrangement;
(viii) Total and affected area of structures by type;
(ix) Inventory of affected fixed assets; and
(x) Loss of income, if any.

As a good practice, plans should also address longer-term remedies for the resettlement of squatters, including improvements to titling systems, to decrease the likelihood that unplanned settlements are simply transferred to another part of the city. Further, it is advisable to seek endorsements on the census results and identified categories of tenure rights from the affected community.

Adverse Economic Impacts on Small (Mobile) Businesses

The urban commercial areas in most developing countries are characterized by unauthorized economic activities with or without fixed structures on public places such as footpaths & pavements, over drains, and street corners. These small businesses and shops often operate
without recognized rights or licenses. The adverse impacts due to the displacement of such businesses, street vendors and pavement dwellers can be disastrous on the survival of low-income families. Vendors and other businesses with recognized rights and licenses to operate are entitled to resettlement and rehabilitation assistance. However, those without any recognized rights and licenses are often displaced without any compensation. The very fact that such businesses exist and operate successfully testifies the existence of demand for such activities that the formal commercial development is unable to meet. The externalities such as proximity to other businesses, accessibility to potential clients and locational criteria are vital for the operation of such businesses and survival of the families. In view of these factors and the long-term sustainable development objectives it is recommended that the resettlement problem of such businesses should be seen in the broad context of urban development and land use planning. To settle such small-scale businesses, vendors and pavement dwellers provisions should be made for the development of market areas at appropriate locations, in accordance with the urban development plans. Where possible, site for the new market areas should be as close to the original site as possible to maintain existing clientele.

19.4 Marginal Impacts in Urban Linear Projects

Urban linear infrastructure projects such as widening of roads, drainage improvements, distribution lines affect a large number of people although the impact of such projects in terms of acquisition of land and structures may be minor, and may not result in any displacement. The adverse impacts of such projects may be temporary - inconvenience, problem of access during the construction period - or permanent such as the loss of a strip of land or shop front. Often the indirect benefits of such infrastructure improvements outweigh marginal adverse impacts to those affected by such development, mostly in the form of better access and improved environment resulting in the increase of asset values (also see Chapter 18: Resettlement in Linear Projects). It must however, be kept in mind that the benefits of development may too long to take effect and that families may have to sell their assets to derive the benefits. In exceptional cases, the loss of a narrow strip of land or shop front may also render remaining assets unviable for continued use. Persons affected due to severe loss of assets would be entitled to compensation and resettlement assistance in accordance to the Resettlement Policy and Decree. Persons and businesses only temporarily affected by the project may be provided a fixed lump sum amount as compensation for inconvenience or loss of clientele due to the lack of access during the implementation. Persons affected by only marginal loss of assets (narrow strip of land or only a small portion of frontage of structures) may be provided with either a fixed lump sum amount or a standard per unit rate for affected area of assets determined based on the average land values in the area.

Determining Entitlements for Marginal Impacts

In urban infrastructure improvement projects where the impacts on the assets located along the project corridor is marginal but the number of people affected is large, the administrative costs to meet the planning requirements, although excessive, cannot be relaxed. It is recommended to differentiate between people with temporary and permanent losses and those marginally and severely affected. It may also be necessary to conduct detailed socio-economic survey to assess income loss to every business along the project corridor. Steps recommended to determine entitlement for marginal impacts include:

1. Preparation of detailed inventory of asset loss to every person;
(ii) Categorization of affected persons according to asset loss (affected by temporary, marginal, and severe loss);
(iii) Formulation of compensation entitlements for each category of affected persons; and
(iv) Determine average land values along the project corridor as a fixed lump sum compensation for marginal losses.

19.5 Relocation in Urban Projects

Calculating Replacement Cost for Urban Land
In some urban projects, identification of replacement land and provision of replacement housing is a serious constraint. In terms of land, calculation of replacement cost is made more complex by gross disparities in land prices and absence of land market. In principle, asset replacement, or compensation at replacement cost, includes recognition of both the quantity of land acquired and other factors (e.g., location, productive capacity) that contribute to its value. In urban areas, however, location creates gross disparities in land values. For displaced persons however, proximity to place of employment and continued household income is more important than the potential increase in asset values of urban fringe areas. In bigger cities land for resettlement sites in the vicinity of place of work and at locations acceptable to APs is either not available or prohibitively expensive. To comply with the Policy, a provision of a mix of compensation and other benefits that together constitute acceptable replacement or restoration of living standards is recommended. For example, land parcels located at urban fringes, improved tenure security and housing standards, opportunities for income generation activities, and access to improved infrastructure and community services can offset the higher unit value of acquired land.

Resolving Locational Issues in Urban Resettlement
Preferences of urban APs on resettlement sites are more diverse because they want to have different locational advantages. On the other hand, options on resettlement sites are limited by affordability, land-use plans, and by urban zoning or other restrictions. Resettlement sites located away from the place of work may result in increased household expenditures in transport. Resettlement policy should attempt to formulate strategies to mitigate increased transport costs. Further, relocated families may not have the priority for improved services and housing conditions at the relocation site especially if it requires additional expenses. In case of loss of jobs as a consequence of the project the resettlement site must be selected to ensure provision of employment and income generating opportunities in its proximity. Alternatively, sufficient community areas for informal economic activities may be provided at suitable locations within the resettlement site. Therefore, providing multiple locational options helps to meet the diverse preferences of affected families and may encourage more effective utilization of scattered opportunities.

Housing Strategies
Provision of replacement housing often is a crucial ingredient in urban resettlement planning. Remedies usually take some variant or combination of two basic forms - displacement and relocation to new sites (with income-restoration implications), or resettlement on vacant lots or public housing scattered throughout several areas. Available resettlement strategies generally fall in three categories: Alternative Housing, (ii) In-situ Housing Development and (iii) Resettlement Sites.

Alternative Housing
The past experience has shown several problems in alternative housing strategies such as public low-cost housing, rental housing and real estate housing development. Subsidized public housing units offered to low-income groups are sold off to higher income-groups. The problems associated with such strategies include (i) low priority for such housing, (ii) affordability to pay, and (iii) suitability of location of such projects in relation to place of work and proximity to kith and kins.

When replacement public or private housing is to be provided, resettlement plans must address the adequacy and affordability of replacement housing financed or constructed by the project. Typical public housing approaches may include hire-purchase owner occupied private or public low-cost housing, and rental housing. Housing types may include low-rise medium to high-density cluster housing, walk-up flats, or high-rise high-density flats depending on the location and the type of housing programs. Successful resettlement is more likely if housing arrangements reflect the priorities and preferences of APs regarding housing styles, affordability, and location. Often it is advisable to development diverse housing approaches to match diverse priorities and preferences of affected persons.
Detailed socio-economic and attitude survey of affected families on the following aspects are required prior to the formulation of replacement housing strategies:

- Household size and average monthly household income, from primary and secondary sources;
- Tenure status;
- Employment types, both primary and secondary;
- Distance to place of work, and major public facilities;
- Time and amount spent on transport to work and public facilities (school, hospital etc.);
- Average amount spent on housing (including rent where applicable), and services;
- Determine locational advantage to the primary and secondary employment;
- Attitude and preferences, if any, for public housing type and location;
- Determine whether and how much additional amount a household is willing to spend for improved facilities, public services, and improved tenure security, where applicable;
- Available housing finance and mortgage facilities.

**In-Situ Development**

‘In-Situ’ development categories of interventions provide opportunities for “mainstreaming” resettlement into the urban development process with minimum displacement of people. ‘In-Situ’ housing development may include strategies such as slum improvement; ‘urban renewal’ and ‘land-consolidation’. However, due to growing urban development needs and the constraints imposed by shortage of available land for public facilities and services, the ‘in-situ’ development model is not always feasible. The emphasis of both the, urban renewal and land-consolidation, strategies is on minimum dislocation of affected families through reassigning plots to allow provision of public facilities and services which would not otherwise be possible due to irregular shape and sizes of land holdings, and to spread benefits of the projects over larger population. Another strategy that could be applied, although with limited success, is ‘in-fill’ of open spaces that lie unutilized within the existing residential areas. Major factors effecting successful implementation of these strategies include:

1. Extensive public consultation with and participation by all the affected families in formulation of project objectives and during implementation;
2. Generally no involuntary acquisition of assets is involved. However, people are given choice to opt-out of the project with provision for compensation at replacement cost for such assets;
3. The post-development benefits are distributed equitably;
4. Project provides for long-term tenure security to affected squatters and those with weaker titles.

**Resettlement Sites**

Development of resettlement sites may also promote a variety of housing approaches. These include provision of “sites-and-services” where fully serviced plots with long-term security of tenure are offered to affected people; and “shell housing” or “core housing” arrangements with provisions for incremental construction. As a good practice, selection of sites and formulation of housing approaches should be carried out with intensive participation of and consultation with affected persons. Factors that need to be considered for successful urban resettlement based on new relocation sites include (i) distance from place of work and public services; (ii) opportunities for business and income generating activities; (iii) adequacy of infrastructure facilities; (iv) long-term tenure security; and (v) meeting the household priority and affordability criteria.

Resettlement plans should include information on final relocation sites and housing approached. For selection of relocation site and housing approach following
information should be collected through detailed socio-economic and attitude survey of affected families:

- Average monthly household income;
- Employment types, both primary and secondary;
- Distance to place of work, and major public facilities;
- Existing skills of household members and willingness to take up new training and jobs;
- Time and amount spent on transport to work and public facilities (school, hospital etc.);
- Average amount spent on housing (including rent where applicable), and services;
- Determine locational advantage of the present primary and secondary employment;
- Attitude and preferences, if any, for resettlement site location;
- Determine whether and how much additional amount a household is willing to spend for improved facilities, public services, and tenure security, where applicable.

19.6 Economic Rehabilitation in Urban Projects

Restoring the livelihoods of people displaced in urban areas is one of the most complex tasks in resettlement. In fact, even projects designed primarily to improve urban incomes frequently falter because of the complexities presented in the urban setting.

Because economic life in an urban setting is often highly diversified, and because incomes for most of the population derive far more from employment than from utilization of fixed assets, compensatory measures tend to be disadvantageous to a large proportion of the displaced urban population. This is especially true for urban residents engaged in informal economic activities, where investment in fixed assets is slight or non-existent. The prevalence of informal economic activities represents a second major impediment to income restoration in the urban setting. While well-established approaches to income restoration in urban resettlement remain elusive, attention to characteristic physical and socioeconomic issues enhances prospects for satisfactory planning. Some such issues follow:

Distance of Relocation as a Hindrance to Income Restoration

Because affordable and available replacement housing sites are more likely to be found along the urban perimeter or in suburban areas, urban residential relocation frequently involves large distances, especially in large urban centers, making it difficult to maintain employment or business incomes.

For employment: One alternative is to coordinate with public transportation services to ensure that conveyance is available and affordable. In some cities it may be just as sensible to find or provide alternative employment for relocated APs, or to provide them with incentives to find their own income-generating opportunities. In some projects, relocated APs are given preference for public employment. In the informal economy, distant relocation may rupture interdependent relationships between rich and poor, previously living in proximity. Even when satisfactory arrangements are provided to restore formal employment to one or more members of a household following relocation, informal income or subsistence activities may be overlooked or discounted, contributing to further vulnerability and impoverishment.

For businesses: Simple provision of a place at distant relocation site for conducting business may not be sufficient to assure income restoration for a variety of factors. As good practice, business owners should be provided with options allowing them to assess for themselves whether their existing business is restorable or whether new business opportunities should be preferred. In the informal economy, distant relocation may separate hawkers or vendors from established trade, often causing severe risk of impoverishment. If unlicensed and if their
enterprises are entirely mobile, vendors and hawkers suffer no significant losses because no fixed assets have been expropriated. Though they presumably are free to peddle their wares elsewhere, they may be distant from bus stations, major intersections, or other customer concentrations. While project proponents cannot provide indefinite income guarantees, it is good practice to assure that displaced hawkers and vendors, even those with no asset losses, are provided opportunities to restore their incomes. Perhaps the most direct method to achieve that objective is to provide vendor market sites at, or adjacent to, the infrastructure site or the relocation site, or both.

**Obstacles at the Relocation Site to Income Restoration**

Thorough resettlement planning can identify and address a variety of problems that sometimes impede income restoration following relocation. Transition allowances should include all licensing costs; alternative arrangements should be provided if municipal zoning at the new site interferes with small-scale income-generating activities; and private or community plots may be allocated to replace small subsistence gardens. In some settings, it is good practice to identify opportunities through resettlement for improving the position of women (e.g., ensuring joint title to replacement assets).
CHAPTER 20: Vulnerable Groups and Resettlement

The Resettlement Decree places great emphasis on the need for providing special assistance to affected vulnerable groups in a development project. The key vulnerable groups that are identified in the Decree include:

a. Households below the national poverty line and those severely affected by the project and are likely to fall below the national poverty line;
b. Elderly households with no means of support and those with disabled-heads without any able-bodied earning members;
c. Households without tenure security or those with weak tenure status,
d. Landless households without any permanent and sustainable means of support; and
e. Women-headed households with no sustainable means of support.

In all probability, all the above categories of households are likely to have one major characteristic of being falling within poverty groups. Households with no means of support or those with no earning members are not likely to have any sustainable means of income. Household incomes, assets owned, and livelihood standards are the key criteria to determine vulnerability of a household and long-term impact of development project. The section below addresses the issue of poverty groups in development projects and suggests some measure to alleviate poverty among affected groups.

20.1 Poverty Groups

The resettlement decree, while keeping its focus on addressing adverse impacts in a development projects due to acquisition of assets, expands its scope to encompass a wide range of social considerations. The reduction of poverty and enabling affected persons to improve their incomes and livelihood is the overarching goal. Poverty is multi-dimensional, extending from low-income level to consumption, to lack of health and education, and to other non-material dimensions of well-being, including insecurity, powerlessness and social exclusion. In its most basic form poverty implies impoverishment or a general lack of physical, social and psychological assets. In practice however, income level, access to basic education and health facilities, water and sanitation, employment and wages remain practical measures and are seen as important components of comprehensive framework for poverty reduction. While compensation, allowances and other assistance may address the immediate loss of assets in a project, the economic rehabilitation measures are aimed to provide physical investments in a project with greater focus on poverty reduction and achieving the long-term goals of improving the households’ incomes and living standards on a sustainable basis. The provisions of the Resettlement Decree, therefore, can play an effective role in addressing poverty issues in the projects with resettlement issues.

The Resettlement Policy and the Decree specify the need to pay special attention to the needs of the poorest affected persons including those without legal title to assets, female-headed households and other vulnerable groups including ethnic minorities, and provision of appropriate assistance to help them improve their status. The Policy therefore implies additional assistance to vulnerable groups, including those in the poverty group, beyond that is required for restoration of incomes. On the other hand, the GoL PDR also has its poverty reduction strategy to address poverty issues nationwide. There is clearly a need for the resettlement Policy and the procedures to be closely linked to the Poverty Reduction Strategy of the GoL PDR. In parallel with the increased emphasis on poverty reduction, the operational procedures should specify the need for focused efforts to improve status of the poor and other vulnerable groups to a minimum acceptable level. Setting up a measurable target for improvement would help allocation of adequate resources and in formulation of appropriate interventions in a project.

The Policy implies that to target effectively required interventions and to address other social issues in a project, the affected vulnerable groups must be carefully identified, required information collected, and their socioeconomic
profile prepared at the earliest possible stage during the project preparation. The indicators of social and economic risks of displacement should be taken as guide for identification of vulnerable groups and for collection of relevant information. A reliable census and baseline survey for an in-depth analysis of social and economic characteristics of identified vulnerable groups, including poverty groups, would be necessary. To achieve the stated objective of the Policy in a project, proactive interventions, focused to avoid potential social risks, beyond mandatory mitigation measures are required. Such interventions should be organized around the following four broad themes:

i) Reducing barriers to access and expanding the opportunities faced by the poor through greater access to markets, trading and employment opportunities;

ii) Improving access to and delivery of essential social services to the poor;

iii) Empowerment through good governance, sound participatory processes and effective organizations of the poor; and

iv) Reducing vulnerability to poverty through building social assets i.e. asset building strategies such as land-for-land, replacement housing, and increased security of tenure.

Interventions should be designed with greater participation by, and consultation with, the poor to ensure that their needs, priorities and preferences are fully addressed, and in a transparent manner with full involvement of civil society and key stakeholders.

**Recommended Interventions**

Interventions to address poverty issues within the scope of the resettlement Policy will most likely rely on available mechanisms incorporating land based and non-land based strategies in determining entitlements for compensation and allowances, income restoration measures, maintaining existing social ties and cultural practices, and restoring community assets. Land based strategies will focus on ensuring greater security of tenure, provision of minimum acceptable standard of land holding and housing, greater access to public facilities and services of at least minimum acceptable standard, and land-for-land approaches to those severally affected due to the loss of productive land.

In urban setting, the interventions may also involve upgrading of public facilities in urban low-income and squatter areas using squatter upgrading and land consolidation strategies, provision of replacement housing of minimum socially acceptable standard, and security of tenure.

Non-land based strategies may include placing greater emphasis on the customary rights and cultural practices of ethnic minorities, provision of improved or better access to micro-finance and affordable micro-credit facilities; providing appropriate training in new jobs, and improving access to markets and employment opportunities. Following specific development oriented opportunities can help avoidance of social and economic risks that a project may cause, and in integrating resettlement in the development process.

a. In a project resulting in the loss of productive assets, severely affected persons who are likely to lose their entire land holdings should be provided with replacement land of equivalent productivity. Households likely to be marginalized due to the small size of the remaining land should be provided with a land holding of sufficient size and productive capacity that would enable affected household with minimum acceptable level of incomes and living standards on a sustainable basis.
b. Where possible, landless laborers and agricultural tenants should, as a result of the project, be provided with at least a minimum economic viable size of land holdings together with security of tenure. Where provision of land is not possible, measures must be taken to provide income-earning opportunities through creation of new jobs.

c. Projects designed to target urban poverty may cover low-income urban areas or areas with uncontrolled haphazard growth. The strategies to address urban poverty in such projects may include upgrading of public facilities and services through ‘land-consolidation’ or other similar approaches and community-based development. In the projects with focus on improvement of urban squatter areas, the strategies may include in-situ upgrading of public facilities and services and provision of land tenure security.

d. In projects where displacement and relocation of affected squatter families cannot be avoided, compensation at replacement cost for affected structures, in the form of cash or replacement housing, should ensure a minimum acceptable housing standard even if the compensation amount exceeds replacement cost. The strategies should be formulated based on the ‘informed choice’ of the affected people.

e. Where the project includes development of resettlement sites with project built housing, the quality and size of the ready built house and plot should be of at least minimum acceptable local standard, and the relocation site provided with a minimum standard of water and sanitation facilities. Where agreed by the APs, the compensation entitlement amount for affected structures and other fixed assets may be used as down payment for developed plots and project built housing. The relocation sites should, preferably, provide opportunities for employment and income generation activities.

f. To very poor households the non-land based rehabilitation assistance measure should not be limited to income restoration. Instead the project should aim to improve opportunities for employment and income of affected poor households to the levels above the poverty line. Wages should exceed or at least meet the local minimum established rates.

g. In addition to compensation and income restoration entitlements to very poor households in a project, supplemental assistance during the transition period should be provided. These may include providing priority in project related employment.

h. Where a project may cause loss of community assets or risks of social disarticulation, measures must be taken to maintain existing social ties, and restoration of community assets.

All the proposed interventions fall within the scope of the Resettlement Decree. The list of suggested measures is not exhaustive. Specific strategies may vary depending upon the location and type of the project, and its impacts. The formulation of appropriate strategies and options should be developed in consultation with affected persons and the selection of final strategies should be based on informed choices of affected people.
APPENDIX D

LEGAL INSTRUMENTS SPECIFIC TO THE NT2 PROJECT
(SOCIAL AND RESETTLEMENT COMPONENT)

Table of Content

D-1 Decree 193/PM on the establishment of the Nakai-Nam Theun NBCA Corridor Areas, NT2 Project Reservoir Area, and Resettlement and Forest Area for people affected by the Project.................................................................1

D-2 Decree 37/PM of April 12, 2002 on the approval of the allocation of the resettlement and forest area to people and village organizations affected by the Nam Theun 2 Project for carrying out forestry business activities. ............................................................. 5

D-3: Authorization 63/MAF to the Provincial Authority to issue the permit and supervise the establishment of Nakai Plateau Village Forest Association of NT2 Project................................................................. 7

D-4 Regulation 484/KM.GOV on the establishment and management of Nakai Plateau Village Forestry Association................................................................. 9
Appendix D: Legal Instruments Specific to the NT2 Project

D-1 DECREE 193/PM ON THE ESTABLISHMENT OF THE NAKAI-NAM THEUN NBCA CORRIDOR AREAS, NT2 PROJECT RESERVOIR AREA, AND RESETTLEMENT AND FOREST AREA FOR PEOPLE AFFECTED BY THE PROJECT.

(Unofficial Translation (19/1/2001))

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Prime Minister Office No.: 193/PM

Prime Minister Decree
on the establishment of the Nakai-Nam Theun NBCA
Corridor Areas, NT2 Project Reservoir Area, and Resettlement and
Forest Area for people affected by the Project

Reference is made to:
❖ The Forestry Law No. 125/PO, dated November 02, 1996.
❖ The Water and Water resource Law No.126/NA, dated 02 November 1996
❖ The Environment Protection Law No.02/99 NA, dated April 3, 1999
❖ The Project Development Agreement on the development of the Nam Theun 2 Hydroelectric Project between the Government of Lao PDR and Developers of the Nam Theun 2 Hydroelectric Project, dated November 16, 1998

The Prime Minister issues this Decree

Article 1: For the purpose of the implementation of the Nam Theun 2 Hydroelectric Project, this Decree determine the following main areas related to the Project:

1.1 Nakai-Nam Theun National Biodiversity Conservation Area (NBCA)
1.2 Corridor Area between the Nakai-Nam Theun National Biodiversity Conservation Area and the Phou Hin Poun National Biodiversity Conservation Area.
1.3 Corridor Area between Nakai-Nam Theun National Biodiversity Conservation Area and the Phoun Hin Nam No National Biodiversity Conservation Area.
1.4 Reservoir Area at the water Full Supply Level of El 538 for the purpose of electricity generation. The other project areas will be separately agreed between the Government and Developers.
1.5 Resettlement Area and Forest Area for the people directly affected by the NT2 Project.
Article 2:

2.1 The determination of the boundaries is based on the map with a scale of 1:1000,000 by comparing the latitudes and longitudes to the actual geographic areas using the mountains chain, streams, rivers, roads, the lowest level or the highest level as references to enable the detailed survey of the areas, the proper implementation of the project, to facilitate the acknowledgement and understanding of the local authorities, local ethnic peoples to the areas boundaries and to receive good cooperation on the implementation from the local people.

2.2 The boundary and area provided in the article 1 of this decree are shown on the attached map and document to this Decree, which is a part of this Decree.

Article 3:

Area and boundary of the Nakai-Nam Theun NBCA

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<th>Total area:</th>
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<tr>
<td>Area within Khammouane Province</td>
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<td>Area within Bolikhamxay Province</td>
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Article 4:

Area and boundary of the corridor between the Nakai-Nam Theun NBCA and the Phou Hin Poon NBCA (Limestone NBCA).

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Article 5: Area and boundary of the corridor between the Nakai-Nam Theun NBCA and Phou Hin Nam No NBCA.

Total: 3,310 ha

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Article 6: Area and boundary of the reservoir at El 538

Total area: 45,000 ha

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Article 7: Area and boundary of the Resettlement area

Total area: 20,800 ha

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<td></td>
<td>Latitude 17' 46' 25&quot;; 17' 50' 40&quot;</td>
<td>Latitude 17' 46' 25&quot;; 17' 50' 40&quot;</td>
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</tbody>
</table>
Article 8: The main objectives of the corridors and all prohibition measures shall follow article 3 and 4 of the Decree 164/PM dated 29/10/1993 on the establishment of the NBCAs for the whole country.

Article 9: The Resettlement Area will be the new settlement for the resettlers and will be allocated to each family for establishing its new house and will be given to the resettlers for sustainable uses in accordance to the laws.

Article 10: The boundary of the reservoir at the water Full Supply Level of El 538 is determined for the purpose of proper reservoir clearing and removal of trees before filling the reservoir to ensure water quality and environment, and in the areas where there is difficulty in level determination and demarcation of logging areas, the rest of the trees will be cut and removed from those areas after filling the reservoir and when the actual inundated area will be known.

Article 11: The Ministry of Agriculture and Forestry in collaboration with the local Authorities and the Nam Theun 2 Project is hereby assigned to do the detailed survey and clear demarcation on the actual ground and disseminate this decree to government officials and ethnic people in order to make them understand this Decree and implement this strictly, and participate in the implementation of the protection of forest in order to conserve forest for the future.

Article 12: This Decree becomes effective on date of signing.

Vientiane, date 29 December 2000

Prime Minister

Signature

Sisavath Keobounphanh
Appendix D: Legal Instruments Specific to the NT2 Project

D-2 DECREE 37/PM OF APRIL 12, 2002 ON THE APPROVAL OF THE ALLOCATION OF THE RESettlement AND FOREST AREA TO PEOPLE AND VILLAGE ORGANIZATIONS AFFECTED BY THE NAM THEUN 2 PROJECT FOR CARRYING OUT FORESTRY BUSINESS ACTIVITIES.

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Prime Minister’s Office
Vientiane, date: April 12 2002

(Supplementary) Decree on the approval of the allocation of the resettlement and forest area to people and village organizations affected by the Nam Theun 2 Project for carrying out forestry business activities

Reference is made to:
- The Forestry Law No.01/96 dated October 11,1996
- The Notice of the Prime Minister Office No.1550/PMO ,dated September 03,1999, of the endorsement of Resettlement Action Plan for the Nam Theun 2 Project
- The letter of proposal of the Minister of Agriculture and Forestry No. 201/MAF dated March 07, 2002

The Prime Minister issues this decree:

Article 1. This decree is issued as a supplement to the decree No. 193/PM dated December 29, 2000 on the establishment of the Nakai-Nam Theun NBCA, Corridor Areas, NT2 Project Reservoir Area, and Resettlement and Forest Area for people affected by the NT2 project.

Article 2. Forest land and forest should be allocated to people affected by the development and construction of the NT2 hydropower project for use as the area on which their new villages will be settled and they can find sustenance and for carrying out forestry business activities in a sustainable manner. This is a compensation measure to people affected by the development and construction of the project.

Article 3. The ministry of Agriculture and Forestry, the Department for National Land Planning and Development of the Prime Minister Office are authorized in collaboration with local authorities and parties concerned to convert the land from its current purpose of agricultural and forestry land to other purposes and activities to serve the needs of the NT2 project.

Article 4. The location and boundary of forest land to be allocated to the people for forestry management and uses are set out in the article 7 of the Prime Minister’s Decree No.193/PM dated December 29, 2000.
4.1 The Minister of Agriculture and Forestry is entrusted in collaboration with the Provincial Governor, local administrative authorities, the department for national land planning and development and the Resettlement Committee for the determination of the boundary of the land areas and categories of land uses such as the area on which new villages will be established, the area for agricultural production activities, the forest land area for a sustainable forestry business activities, the area for construction and expansion of Nakai District for the future, consistent with the actual local conditions. In parallel to the above, rules and regulations for the establishment and business activities of the villagers forestry association in the Resettlement Area of the NT2 project on the Nakai Plateau have to be prepared and issued to ensure the sustainability of the management and use of forest and forest resources.

4.2 Persons in charge of the NT2 project and the Nam Theun 2 Electricity Consortium (NTEC) are entrusted to prepare a plan, to survey and collect actual data for the detailed planning for the delegation of the management and use right of the forest land and forest resources to the people in accordance with the plan specified (Articles 4 and 4.1) and procedures from time to time on the basis of the agreement between the State and the village organizations or villagers forestry association in order to manage and use the forest land in a sustainable manner in accordance with the laws and regulations issued by the State.

**Article 5.** Ministries, organizations equivalent to the ministries, local administrative Authorities, and armed forces and ethnic people within the NT2 project area shall acknowledge and act strictly in accordance with this decree.

**Article 6.** This decree is effective from the date of its signing.

Prime Minister of Lao PDR

Signature

Boungnang Vorachit
D-3: **Authorization 63/MAF to the Provincial Authority to issue the permit and supervise the establishment of Nakai Plateau Village Forest Association of NT2 Project.**

Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

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Ministry of Agriculture and Forestry
No. 0063/MAF
Vientiane, 29 April 2002

To: His Excellency the Governor of Khammouane Province Chairman of the Committee of the Resettlement of people of the NT2 Project.

Subject: Authorization to the Provincial Authority to issue the permit and supervise the establishment of Nakai Plateau Village Forest Association of NT2 Project.

Reference is made to:
- The Decree no 193/PM dated 29/12/2000 on the establishment of Nakai-Nam Theun NBCA, corridors areas, NT2 reservoir area, the resettlement and forest area for people affected by the NT2 project.
- The (supplementary) Decree 37/PM dated 12/04/2002 on the approval of the allocation of the resettlement and forest areas to people and village organizations affected by the NT2 project for carrying out forestry business activities.
- The Notice of the Prime Minister's Office no 1550/PMO dated 3/9/1999 on the endorsement of the Resettlement Actions Plan of the NT2 project.
- The Decision no 64/PMO dated 4/11/1998 on the creation of the Committee of Resettlement of People affected by the NT2 Project.

In order to concretize and effectively implement the decrees, decision, notice and the resettlement actions plan of the people from the area which will be relocated by the NT2 Project already endorsed by the Government and to encourage the implementation of forestry law and regulations on forest management and business activities, based on the previous agreement between the province and the Ministry of Agriculture and Forestry, the Minister of Agriculture and Forestry authorize the Governor of Khammouane Province, on behalf of local authorities and the Chairman of the Resettlement Committee of people of the NT2 Project, to issue regulations on the establishment and the conduct of operations of the Nakai Plateau Village Forest Association of the NT2 Project. Concerning the steps, method and technical matter to ensure the sustainable management of forest, the Provincial Agriculture and Forestry Office in collaboration with the Department of Forestry is entrusted to be responsible and to give guidance under the strict supervision of the Governor.

During the implementation, if there are problems related to the policy, laws and regulations, the Ministry will work together with the Province to evaluate them, find ways and measures and make proposal to the Government for proper solutions.
Appendix D: Legal Instruments Specific to the NT2 Project

With many respects,

For the Minister of Agriculture and Forestry

Sitaheng RATSAPHON

C.C to:

1. Prime Minister Office (as a report)
2. Forestry Department (for implementation)
3. Khammouane PAFO (for implementation)
D-4 REGULATION 484/KM.GOV ON THE ESTABLISHMENT AND MANAGEMENT OF NAKAI PLATEAU VILLAGE FORESTRY ASSOCIATION

Khammouane Province

No. 484/KM.GOV

Thakhek, June 13, 2002

REGULATION ON THE ESTABLISHMENT AND MANAGEMENT OF NAKAI PLATEAU VILLAGE FORESTRY ASSOCIATION

Reference is made to:

- The Forestry Law no. 1-96 dated 11/10/1996.
- The Decision of the Prime Minister no. 64/PM dated 14/11/1998 on the establishment of the Resettlement Committee of people of the NT2 Project.
- The Decree of the Prime Minister no. 193/PM dated 29/12/2000.
- The Decree of the Prime Minister no. 37/PM dated 12/04/2002.

The Governor of Khammouane Province issues this Regulation

PART 1
ESTABLISHMENT, NAME AND OBJECTIVES OF THE ASSOCIATION

Article 1:
- This Regulation establishes the Association;
- The official name of the Association is, the Nakai Plateau Village Forestry Association of the Resettled Area of the Nam Theun 2 Project or NPVFA, hereinafter referred to as the Association.

Article 2:
Objectives of the Association:

- To gather the resettled villagers impacted by the Nam Theun 2 Project into a single organization, enhancing their solidarity and creating favorable conditions for the improvement of their living standard;
- To raise the awareness on the collective forestry rights of the resettled villagers;
- To manage and use the forests (allocated by the State according to Decree no. 93/PM to compensate the impacts due to the construction of the NT2 Hydropower Project) effectively and sustainably so that they become the permanent base of their livelihood.
PART II
Status, Functions and Rights

Article 3: Status of the Association:

- The Nakai Plateau Village Forestry Association is hereby created by this regulation as a legal corporate entity, operating under the general guidance of the Provincial Agriculture and Forestry Office and other relevant authorities;
- The Association is financially independent and able to contract and enter into other commitments in its own name.

Article 4: Functions of the Association:

- To receive the forest resources as stipulated in Decree 193/PM of December 29, 2000 and Supplemental Decree 37/PM of April 12, 2002;
- To consolidate and strengthen the solidarity among the members;
- To facilitate the coordination with governmental, Nam Theun 2 and relevant agencies;
- To manage and use the allocated forest and forest resources effectively and sustainably;
- To prepare a forestry management plan, an operational plan and a training plan, as directed by the NT2 Coordinating Committee, for approval by the relevant organizations;
- To implement those plans effectively;
- To develop sources of income necessary for the improvement of the living conditions of the members of the Association.
- To share the cost and benefit to the members equitably;
- To establish a social fund for support of vulnerable households;
- To pay tax and other duties to the government;
- To report on the results of the activities of the Association to the General Assembly of the Association;
- To contribute to the socio-economic development of the Nakai District.
- To develop and train labor in relevant skills.

Article 5: Duties of the Association:

- To manage and use for their sole benefit the allocated forest and forest resources according to the forestry management plan;
- To own, use, sell and enjoy the benefits of the trees planted by and allocated to the Association;
- To take appropriate measures to enforce the rules and regulations of the Association;
- To assign tasks and responsibilities to the members;
- To carry out forestry business activities including logging, transformation and marketing of forestry products;
- To enter into agreements with individuals and legal persons;
- To buy, own, exchange and sell tools, equipment, vehicles, buildings and other property of the Association;
- To confiscate logs and other illegal forestry products within the limit of its territory, and bring wrongdoers before the law;
- To open and operate accounts with banks;
- To distribute its net profits to the members, on a regular basis.
PART III
Membership and Organization

Article 6: Membership:

- The membership of the Association shall be open to all households directly impacted and/or resettled by the Nam Theun 2 Project;
- A register of members shall be prepared and maintained by the Association, open to inspection by all members;
- Each household will be considered as one member.

Article 7: Conditions of membership:

Each registered household who wishes to become a member of the Association shall comply with the following conditions:

- Be legally registered as a Project-affected household;
- Agree to comply with the rules and regulations of the Association;
- Submit a written application for membership to the Association.

Article 8: Responsibilities of the Members:

- To support objectives, programs, plans and activities of the Association;
- To comply with the rules, regulations and decisions of the Association;
- To be responsible with the other members for the payment by the Association of its taxes and other charges to the government and its costs and expenses;
- To protect and develop the forest and forestry resources of the Association.

Article 9: Rights of the Members:

- To vote on all matters brought to the Assembly and members meetings;
- To stand for elections to the Boards or Committees of the Association;
- To obtain benefits and social welfare from the Association available to the members;
- To suggest any useful idea to the Board of Management;
- To resign from membership.

Article 10: Articles of Association:

- The Association shall have Articles of Association setting out its internal rules and regulations which shall be prepared by the Association and approved by the Provincial authorities;
- The Articles of Association shall be prepared within 60 days of the date of this Regulation, and shall be discussed with the expected members;
- The Articles of Association once approved by the Province shall be notarized by the Notary Office of the Province and registered with the State Assets Management Office of the Province.

Article 11: Registration of the Association:

- The Association shall be registered with the Provincial authorities.
Appendix D: Legal Instruments Specific to the NT2 Project

Article 12: Funding of the Association:

- The Association shall be funded by its business activities and initially, by a working capital loan.

Article 13: Changes to the Articles and termination of the Association:

- Any change to the Articles of Association shall be reported to and endorsed by the relevant authorities and re-registered by the district financial office;
- The Association may be terminated by a resolution of the General Assembly with the authorization of the District Authority and must be endorsed by the Provincial Authority and reported to the Ministry of Agriculture and Forestry.

PART IV
Main Bodies of the Association

Article 14: Main Bodies:

The main bodies of the Association shall be:
- The General Assembly
- The Board of Management
- The Board of Inspection

Article 15: General Assembly:

- The General Assembly shall meet once a year but meetings may be held at other times as well. Between the formal meetings extraordinary sessions of this General Assembly may be held if the management of the Association determines this to be necessary or if it is proposed by 1/3 of the members;
- To be able to proceed, the number of members present at any meeting of the General Assembly shall not be less than 2/3 of the total members.

Article 16: Functions of the General Assembly:

- Review the implementation of the forestry, operational and training plans;
- Approve new plans as presented by the Board of Management;
- Elect the Board of Management and the Board of Inspection;
- Approve the Articles and any other rules or regulations of the Association;
- Decide on the method and amount of income distribution to the members;
- Annually, approve the financial statements of the Association.

Article 17: The Board of Management:

The Board of Management comprises a Chairman, one or two Deputies, and other members. They are elected by the General Assembly. The term of office of the board is three years.

Article 18: Rights and duties of the Board of Management:

- Formulate policies, strategies, programs and plans for the Association;
- Implement all policies, strategies, programs, plans and decisions of the Association;
• Coordinate with authorities for the smooth implementation of the programs;
• Coordinate with relevant organizations inside and outside the district;
• Enter into legally binding agreements with relevant organizations for the benefit of the Association;
• Take appropriate measures to protect the interest of the Association;
• Resolve all internal problems;
• Prepare and organize all meetings of the Association including all meetings of the General Assembly;
• Be remunerated according to their merit and the regulation of the Association;
• Select a Chairman from among the numbers of the Board of Management;
• To appoint a General Manager and support staff.

Article 19: Rights and Duties of the Chairman:

• Prepare, organize and preside at meetings, including the General Assembly;
• Be responsible for reports and official documents of the Association;
• Sing on behalf of the Association;
• Represent the Association on official occasion;
• Propose the nomination of the Board members;
• Delegate tasks and responsibilities to other Board members.

Article 20: The Board of Inspection:

• The Board of Inspection shall comprise a Chairman, a Deputy and up to three other members;
• They are all to be elected by the General Assembly.
• The normal term of office of the Board of Inspection shall be 3 years.

Article 21: Rights and Duties of the Board of Inspection:

• To review the general management of the Association;
• To monitor and evaluate the implementation of all of the programs and plans of the Association;
• To review the financial situation of the Association;
• Each time there is a Government Authority Supervision or Assistance, the results must be formally reported to the Board of Management and relevant authorities.

PART V
Relations with Government

Article 22: The Governor of Khammouane Province shall be responsible for implementing, supervising, facilitating and monitoring the Association, through the Provincial Agriculture and Forestry Office.

Article 23: The Provincial Agriculture and Forestry Office shall be responsible for advising on the provision of technical assistance and training to the Association according to its management, operational and training plans.

Article 24: Relevant Government agencies shall be responsible for giving assistance and facilitating the management and business activities of the Association according to the Articles of the Association and Lao law.
Appendix D: Legal Instruments Specific to the NT2 Project

Article 25: This regulation can be changed by the Governor only if an article or paragraph contradicts government policy.

Article 26: This regulation is effective on the day of its signature.

The Governor of Khammouane Province
APPENDIX E

IAG AND POE COMMENTS ON THE RAP

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E-1  INTERNATIONAL ADVISORY GROUP (IAG)

The purpose of the 5-person IAG is to “provide an independent assessment of the World Bank’s handling of environmental and social issues in NT2 and of the risks involved for the Bank.” The IAG first visited Lao PDR in May-June 1997, visited for the second time in November 1998, and for a third time in March 2001. During its second visit, the IAG reviewed the July 1998 Resettlement Action Plan. In this respect, the IAG underlined three points. Sub-sections are J-2, J-3 and J-4 are quoted from the IAG December 1998 Report.

E-2  INTRODUCING NEW LIVELIHOOD MODELS

The IAG was pleased with the progress achieved in the Plateau area and in the watershed village of Ban Mak Feuang on developing new livelihood options.

The work being undertaken in developing new techniques (wetland rice, agro-forestry) and new crops and varieties, testing the husbandry practices required and measuring the acceptability of new products among the villagers is an impressive start in the key exercise of weaning the people away from destructive practices and achieving food security. The demonstration farms are an effective way of showing people that new techniques work.

The work must be maintained without a break, for experience suggests that the building of trust and credibility is an essential element of livelihood change activities.

This work will be fundamental to the success of the project in conservation terms and is a contribution to alleviating poverty. A parallel exercise must be the promotion of social development work in the areas of health and education.

If there are to be delays in implementing the Nam Theun 2 Project, it is all the more important to use the extra time available to test and introduce new livelihood options and to start meeting some of the raised expectations of the villagers for better social services.

NTEC Comment: NTEC encourages new livelihood options and techniques for the Nakai-Nam Theun NBCA Plateau.

E-3  RESETTLEMENT

The IAG’s view in 1997 was that despite the sorry record of most resettlements elsewhere, the Resettlement Action Plan (RAP) for Nam Theun 2 appears to provide a sound basis for achieving a successful resettlement. This remains the Group’s view.

The IAG monitored resettlement work and comments as follows:

- The IAG welcomes the fact that the time frame for implementation of the RAP has now been increased from five to eight years;
- The IAG notes that the high expectations of villagers awaiting resettlement continues and that there is the added element of frustration at the delays in implementation of resettlement;
- The GOL’s policy is clear with regard to compensatory issues for resettled families. Only those families registered as residents on the Plateau will receive compensation;
The IAG notes the work of the PCPP on the Nakai Plateau (April-May 1998) and the contribution of villagers to the process. The IAG takes note that the major issues identified are food security, the importance of a diversified livelihood model, detailed modifications to house design proposals, village layout and the importance of appropriate gender-sensitive training;

The IAG notes the structure adopted in the RAP for the Nam Theun 2 resettlement organization. Administrative responsibility for resettlement has been transferred from the central Government to provincial and district institutions;

The IAG proposes that serious consideration be now given to resettling an entire village at a very early date. The IAG believes that such a visible and tangible model will have a greater impact on communities preparing for resettlement and both positive and negative experiences can be utilized by communities and implementing agencies.

NTEC Comment: The IAG’s proposal – the early resettlement of a pilot village – has been agreed to by NTEC. See Appendix B on Pilot Village progress.

E-4 POST-RAP PERIOD

The IAG looks beyond the RAP implementation time period, and is concerned that at a time when the private sector withdraws from Nam Theun 2, there is a danger that insufficient capital will have been set aside to maintain services, nor sufficient invested in the development of human resources necessary for delivery of services to communities. Social disruption may follow.

The IAG sounds this cautionary note in order to underline the importance of ensuring:

- That transfer of skills and information from NTPC to GOL personnel occurs at provincial, district and local level;
- That revenues generated from Nam Theun 2 are invested in sustainable activities involving resettled communities;
- That sufficient revenues from the Project are set aside for long term maintenance of roads, schools and hospitals for resettled communities.

NTEC Comment:

- Transfer of skills from NTPC to GOL will take place at all levels of government and at all phases of the Project.
- Revenues generated from the Project will pay for the operation and maintenance costs of the community water and irrigation systems, as well as GOL-owned assets provided, budgeted at $300,000 per year for 25 years. The smooth functioning of these systems and facilities will contribute to sustainable agricultural activities as well as food security by way of paddy production. GOL revenues generated by the Project will be used by GOL in support of its overall socio-economic development programmes.
- While the RAP provides for the construction of all physical community infrastructure, the responsibility for the operation of schools, clinics, village roads, etc. rests with GOL.
E-5  THIRD IAG REPORT – APRIL 2001

The IAG concluded that the July 1998 Resettlement Action Plan “if faithfully and yet flexibly carried out provides a sound basis for successful resettlement”

The IAG also reviewed the section of the draft Concession Agreement dealing with resettlement and concluded that “this is an extremely comprehensive and binding document…..representing a huge step forward in spelling out the respective obligations of the parties, and especially the company, for achieving successful resettlement.”

Then the report goes on to say that “it (the RAP) does not appear to envisage the signature by government and the developer of performance contracts with individual families and the community, specifying entitlements, delivery schedule and recourse procedures. “

NTEC Comment: Households have signed survey booklets that record their assets. Their entitlements are contractually laid down in the Concession Agreement, and in the NT2 Resettlement Policy as adopted by GOL and NTPC.

The IAG questioned if future household incomes targeted to be above the rural poverty level would be measures on an average village-by-village basis, or would reflect individual households.

NTEC Comment: The NT2 Resettlement Policy is clear on this point. Article 1.5 states that “individual household incomes should be above the national poverty line within four years after physical relocation and should be supported in the interim.” The Concession Agreement details two targets: The household target, as mentioned above, and the village target to be attained at the end of the resettlement period. See Section 8.9.2 of the RAP.

The IAG wondered why electrical service was to be brought to the exterior of the houses, but not inside.

NTEC Comment: This must be a misunderstanding: the RAP cost estimates show that interior service will also be provided, including basic outlets and basic fixtures fitted with light tubes. However, the cost of the energy is to be borne by the consumers, on a basis to be determined by EdL. An affordability analysis has been carried out.

On the downstream areas, the IAG concluded that “downstream of the power station there will be some negative impacts of the inter-basin transfer of Nam Theun waters, most notably on riverside gardens and (probably) on fisheries. There will also be substantial benefits in the potential for stimulating dry season rice and other production through irrigation.”

NTEC Comment: Appendix I shows the results of Downstream Surveys undertaken to shed more light on the downstream conditions.

E-6  PANEL OF EXPERTS (POE)

The purpose of the three member POE is “to provide (on behalf of GOL) independent review of and guidance on the treatment of environmental and social issues associated with the NT2 Project”. The POE has visited the Project five times: in January and July 1997, and in January 1998, 1999 and 2001.
E-7  POE – FOURTH REPORT JANUARY 1999

The following comments / conclusions / recommendations are extracted from the fourth POE report to GOL (January 24, 1999) reflecting the Panel's review of the RAP, their attendance at the RAP National Public Consultation Workshop, and their visit to the Project Area.

The Nakai Plateau

“The Resettlement Action Plan (RAP) continues to evolve as a world class document. While the POE was in the field it was reviewed first with district and then with provincial officials.

A major change in regard to resettlement with development activities has been the increasing incorporation of district personnel from five districts covering three provinces into their planning and implementation. The POE recommends that this effort be accelerated to the extent possible, with the major qualification that more emphasis be placed on district planning “with” the villagers as opposed to planning “for” the villagers.”

NTEC Comment: A review of the extensive PCPP activities undertaken by GOL and NTEC clearly shows that planning “with” villagers has been very much the philosophy of the Project over the years. With the core of the RC now in the Provinces, there is added assurance that provincial, district and village staff and the villagers themselves will play an increasingly larger role.

“Other important developments include increasing the resettlement period from five to eight years starting in 1999 and the September-October 1998 village notification and registration survey. The current RAP livelihood model is more diversified, with a better balance and more flexibility between the major components. The range of options appears feasible. The greatest risk continues to be associated with the forestry component. The POE is pleased to note that the revised RAP contains considerably more detail than earlier versions on the forestry component. It was informed that district forest officials will be available to assist implementation.

Especially important, in the POE’s opinion, has been the decision to proceed with the selection of a pilot resettlement village. As emphasized in the December 1998 report of the IAG, the high expectations that villagers have for the NT2 Project require prompt initiation of key development activities. A pilot resettlement village is such an activity.

The POE visited one of the villages that district personnel have selected for probable incorporation within the Pilot Village. Though the district’s intention was to commence pilot activities within the next few weeks by allowing villagers to prepare and plant fields in rice at the new village site during the 1999 rainy season, those villagers have already begun to clear new swiddens at their current sites. They also remain unaware of their possible pilot status.

While emphasizing the importance of initiating pilot activities as soon as possible, the POE recommends that district personnel further incorporate villages within the decision-making process as to Pilot Village selection and the timing and nature of Pilot Village activities.”

NTEC Comment: The development of the Pilot Village is being carried out on a consultative basis - see Appendix B.

“Of special concern to the POE was the apparent district emphasis on consolidating a number of small villages into units of at least 50 households – that figure being related to the provision of primary schooling. Universal primary education is, of course, essential. However, the POE recommends that the primary reasons for determining the size of resettlement villages must be the preference of the villagers themselves linked to the capacity of the resettlement sites to provide the necessary economic opportunities.”
NTEC Comment: NTEC agrees with this POE recommendation; its PCPP and site planning activities have and will be based on the villagers’ own preferences.

Additional Comments for POE

1. **The need for benchmark (pre-resettlement) nutritional surveys.**

“The need for further nutritional surveys is for two major reasons. First, there is an inadequate profile of the pre-project health status of the population to be resettled. In the latest and most comprehensive health status report important indicators such as height, weight and skin folds were not measured. The initial benchmark surveys should be completed before relocation. The second reason relates to the importance of benchmark nutritional surveys for monitoring health status following removal.”

NTEC Comment: NTEC recognizes the need for information on nutritional status of the plateau population and has included collection of this information as part of further survey work on the Plateau.

2. **Ensuring that the pre-resettlement demographic and socio-economic surveys are adequate benchmarks for monitoring post-resettlement project impacts on living standards.**

“The NTPC will not be able to prove that a majority of resettling households have benefited from the project unless they can convincingly show with internationally acceptable indicators (including health indicators) that conditions have indeed improved since before the project.”

NTEC Comment: A census and socio-economic Plateau survey was carried out in October 1998 in accordance with the methodology outlined in Appendix G. Health and nutritional status of a significant sample of the Resettler population will be established by surveys well before actual resettlement. Monitoring of resettlement outcomes will be an aid to any policy or implementation adjustments required. Target incomes have been set and will be monitored. The 1998 baseline incomes of the 319 sample households are presented in Appendix G.

3. **Length of the monitoring period.**

“Although it is too early to recommend a time span, monitoring must extend well beyond the end of the eight year resettlement period.”

NTEC Comment: The length of the monitoring period will extend until it can be unquestionably demonstrated that the objectives set out in the NT2 Resettlement Policy have been achieved. The livelihood projections show that the area should reach full development by year nine or ten.

4. **Departees**

“If one-time payments are given for those wishing to leave the district, there is always the danger that the head of the household will use the cash at the expense of other family members. To protect against this both spouses should have access to a bank account in which the money is held, and both must sign for withdrawals over a certain amount.”

NTEC Comment: This suggestion has been brought to the attention of the Resettlement Committee which has approved covering regulations.

5. **Relationship to the Nakai-Nam Theun NCBA**

“The RAP states “No establishment of households other than bona fide relocatees should be permitted in the Resettlement Area”.

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“Some flexibility is needed here to allow for relatives to return, for example, female headed households following a divorce or death in the Nakai-Nam Theun NBCA where the household is a daughter, sister, etc. of resettling households.”

| **NTEC Comment** | NTEC agrees that some flexibility is required in the implementation of this principle. |

### 6. Capacity Building

“While the RAP makes frequent reference to the importance of capacity building, more concise attention is needed to chart current staffing for various RAP activities versus required staffing.”

| **NTEC Comment** | The suggested activity will be carried out as part of implementation planning, in advance of actual implementation. Chapter 14 of the RAP deals with the capacity issue. |

### E-8 POE – FIFTH REPORT JANUARY 2001

The fifth report makes a number of specific recommendations relative to the RAP.

"Because of risks associated with each component of the livelihood model, an implementation period of up to ten years should be considered essential".

| **NTEC Comment** | According to the CA, the Resettlement Implementative Period is 9 years, starting from the Financial Closure Date. The POE, under the CA, will have an opportunity to advise GOL on any extension of the Period in the event objectives have not been met. |

"Implementation of the resettlement program should expand the number of livelihood options available to each household and village to the greatest extent possible".

| **NTEC Comment** | The preparation of specific forestry, livestock, agriculture and fisheries development plans, as scheduled, should provide additional suggestions for livelihood options. |

"Adequately funded fishery surveys should commence this year and continue until the NT2 projects is operational. Thereafter they should continue once every two years for a 7-8 year period".

| **NTEC Comment** | NTEC has engaged a fisheries consultant for the downstream area to carry out a 5-year monitoring program of the existing situation, starting in 2001. |

"The extend and importance of river bank gardens to the households involved should be surveyed along the entire length of the XBF".

| **NTEC Comment** | The results of the 2001 survey of the downstream villages are reported on in Appendix I. |
APPENDIX F

NATIONAL PUBLIC CONSULTATION AND PARTICIPATION WORKSHOP ON THE RESETTLEMENT ACTION PLAN

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F-1 INTRODUCTION

On January 21 and 22, 1999 a National Public Consultation on the RAP took place in Vientiane. It was organized by the NT2 Resettlement Committee, with support from STENO (now the Science, Technology and Environment Agency (STEA)) and NTEC. In attendance were 136 persons, representing a wide range of stakeholders. The Workshop was an essential activity of the NT2 Public Consultation and Participation Process (PCPP). This process is discussed in detail in Chapter [13] of the RAP.

According to the participating World Bank PCPP mission, the January 21-22, 1999 National Public Consultation Workshop.

“…was very well organized and managed by STENO, with valuable assistance from NTEC, and was jointly chaired by the governor of Khammouane Province and STENO. Given the critical role of the province in implementing the RAP, this is a welcome development. Additionally, the Workshop was opened by Mr. Xayxengly Tengbliacheu, the Minister to the Prime Minister’s Office and President of Central Leading Committee for Rural Development. The workshop was attended by over 100 people, many from the relevant districts. There was a good presentation on how public consultation had changed the RAP design. The level of discussion was very interesting, both in terms of the level of detailed questions (demonstrating a greater understanding of the overall plan) and in terms of the open and transparent debate on policy and principles.”

The evaluation of the Workshop indicated that 82 percent of the audience felt that the RAP was adequate and 88 percent felt that the Workshop had served its purpose. Ninety percent were in favor of the resettlement proceeding.

A complete Record of Workshop proceedings was subsequently distributed to all participants, as well as to many non-attendees, either in Lao or English. This gave them an opportunity to review the post-workshop responses that had been prepared to answer the questions asked in the small groups discussions. Since there were three discussion groups, this provided everyone with an insight into the discussions of the other groups. The full Workshop Record was made available on request in both Lao and English, in electronic or hard copy form, from STENO and NTEC in Vientiane. In addition to all the presentation, the Workshop Record contains a list of 150 questions asked during the group discussion sessions and the post-workshop responses provided by NTEC to each question.

Selected Workshop Documents – January 21-22, 1999

- Letter of Invitation
- Agenda
- List of Attendees
- Evaluation Questionnaire and Response
- Opening Address
- Concluding Address
- NT2 in the perspective of international resettlement experience
F-2 LETTER OF INVITATION

LAO PEOPLE’S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

-------------------------------------------------------------------------------------
Science Technology and Environment Organization - STENO
PO Box 2279 Vientiane, Lao PDR

No:……………………/STENO

December . . .1998

Subject: Invitation to attend the National Public Consultation and Participation Workshop to
discuss the final Resettlement Action Plan for the Nam Theun 2 Hydroelectric Project,
Vientiane, 21 – 22 January 1999

Dear Sir or Madam,

Your organization is cordially invited to attend the National Public Consultation and Participation
Workshop on the final Resettlement Action Plan (RAP) for the Nam Theun 2 Hydroelectric Project.

This workshop will be held on 21 – 22 January 1999 at the Lane Xang Hotel, in Vientiane.

Please find attached a copy of the executive summary and the table of contents for the July 1998
Resettlement Action Plan for the Nam Theun 2 Project. Also attached are a tentative agenda for the two
day workshop, a Nam Theun 2 Project Overview update and a document answering Commonly Asked
Questions on the RAP.

During the last two years, the Government of Lao PDR has collected many opinions and view points on
resettlement for the NT2 Project. Major examples were the national and regional consultations which
took place in Vientiane on June 2-3, 1997 and in Khammouane Province on June 5, 1997 after the release
of the Draft RAP in May 1997. Further direct inputs resulted from the local public consultation and
participation conducted in April-May this year, during which the villagers of the Nakai Plateau reacted
and commented on different aspects of the resettlement plan and livelihood models as they had been
modified after earlier villager input. The present RAP document is intended to reflect the various opinions
received on these important subjects from all stakeholders. At the workshop, speakers will report on how
previous inputs have been included in this RAP.
Complete color copies of the RAP are available for public access and also for purchase at the following locations:

- Nam Theun 2 Public Information Center, STENO, Vientiane
- Nam Theun 2 Electricity Consortium (NTEC)
  26 Khun Boulom Road, Vientiane
  Lao PDR
  Tel: (856-21) 217 421/2, 218 607/8
  Fax: (856-21) 217 420
  e-mail: ntecvte@loxinfo.co.th

Also available free of charge by e-mail from ntecvte@loxinfo.co.th are full copies (without maps and pictures) of the Resettlement Action Plan and the 1998 Report on PCPP with villagers on the Nakai Plateau.

We would be very pleased if you could confirm, at your earliest possible convenience, your intention to attend this workshop, which would be at your own expense.

Should you be interested, could you kindly provide the following information:

- Name of participant or participants, address, telephone and fax number. [e-mail address if available]
- The nature of your organization, in particular as it relates to the topic of this Nam Theun 2 study.

It would also be helpful to know the qualifications of the participants so as to effectively plan this workshop and provide interesting discussion for all concerned. Could you please advise the nature of your participants’ experience in Lao PDR and the aspects likely to be of greatest interest to them.

For those participants coming from abroad, STENO will make the necessary entry visa arrangements upon arrival at Vientiane airport, the ‘Friendship Bridge’ or at any other appropriate or convenient location. The following information is required for the issuance of a travel visa to Lao PDR:

- Full name and address of participant
- Citizenship and date of birth
- Passport number and date of expiry
- Expected arrival date in Vientiane and flight information

We would be grateful for your early reply to the following address.

Tel: (+856-21) 217 421, 217 422
Tel: (+856-21) 218 607, 218 608
Fax: (+856-21) 217 420, 218 610, 213 472

e-mail: ntecvte@loxinfo.co.th
Attn: Mr. S. Phanousith
Director of Cabinet
STENO
PO Box 2279
Vientiane, Lao PDR
Any queries should be directed to:

Ms Viengsavanh Douangsavat  Deputy Director,
Department of Science, Technology & Environment Data
Information, STENO

Mr Ketkeo Salichanh  Department of Science, Technology &
Environment Data Information, STENO

If you have received this Invitation and Agenda by facsimile, a hard copy with all four attachments has been separately mailed to you.

Yours Sincerely,

Somphone Phanousith
Director of Cabinet
National Public Consultation and Participation Workshop
on Resettlement Action Plan
for Nam Theun 2 Hydroelectric Project
Vientiane, 21 – 22 January 1999

Agenda

Chairmanship Committee:
- H.E. Mr. Xayxengly Tengbliacheu, Minister to Prime Minister’s Office & President of Central Leading Committee for Rural Development
- H.E. Mr. Khen Phalivong, Governor of Khammouane Province, Chairman of NT2 Resettlement Committee
- H.E. Mr. Somphong Moungkhounvilay, Vice President, State Planning Committee
- H.E. Mr. Noulinh Sinbandhit, Vice-President, STENO
- Mr. Bouathong Phounsalith, General Secretary, Domestic Investment Promotion Committee, CIC. Former Chairman of NT2 Resettlement Committee
- Mr. Somboun Manolom, Deputy Director of Electricity Department, Ministry of Industry and Handicrafts
- Mr. Done Somvorachit, Director Press Department, Ministry of Foreign Affairs
- Mr. Bouasone Phongphavanh, Director Mass Media, Ministry of Information and Culture
- Mr. Somdy Douangdy, Director Planning Department, State Planning Committee

Day 1 Thursday 21, January 1999.

8:00-8:30 Registration. Hand-out Final Agenda. Invitation papers and other documents available on request

8:30-8:40 Opening remarks from the Chairman

8:40-9:00 Opening address H.E. Mr. Xayxengly Tengbliacheu, Minister to Prime Minister’s Office & President of Central Leading Committee for Rural Development

9:00-9:10 Explanatory address by the Independent Facilitator

Jean-Christophe Delvallet
Project Director, NTEC


H.E. Mr. Khen Phalivong
Governor Khammouane Province & Chairman Resettlement Committee

9:40-10:10 Coffee Break


Martin ter Woort
Senior Resettlement Consultant, ACRES

Stephen Sparkes
Senior Social Scientist, NORPLAN

11:00-11:10 Explanation of aims/format for Small Group Discussions

Independent Facilitator

Hand-out speech notes to facilitate Small Group Discussions, Session 1

11:10-12:00 Small Group Discussions, Session 1

12:00-13:00 Lunch Break

(Buffet Lunch available at Lane Xang)

13:00-13:40 Reporting back from Small Group Discussions, Session 1


Loy Chansavat
General Manager, Resettlement, NTEC

Martin ter Woort
Senior Resettlement Consultant, ACRES

14:30-15:00 Coffee Break. Hand-out speech notes to facilitate Small Group Discussions

Session 2

15:00-16:30 Small Group Discussions, Session 2

DAY 2 FRIDAY 22, JANUARY 1999.

8:00-8:30 Reporting back from Small Group Discussions, Session 2

8:30-8:45 GOL NT2 Implementation Program. Organization Framework and Responsibilities

Mr. Bouathong Phounsaliith
General Secretary, Domestic Investment Promotion Committee, CIC
Former Chairman, NT2 Resettlement Committee
Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

8:45-9:30 Resettlement experience in the Lao PDR.  
*H.E. Mr. Xayxengly Tengbliacheu*  
Minister to Prime Minister’s Office  
& President of Central Leading Committee for Rural Development

9:30-9:45 Coffee Break

9:45-10:15 NT2 in the perspective of international resettlement experience  
*Professor Thayer Scudder*  
Anthropologist, California Institute of Technology  
*Member of NT2 International Environmental & Social Panel of Experts*

Hand-out speech notes to facilitate Small Group Discussions, Session 3

10:15-11:45 Small Group Discussions, Session 3

11:45-12:00 Completion of Workshop Evaluation Forms by all Participants

12:00-13:00 Lunch Break *(Buffet Lunch available at Lane Xang)*

13:00-13:45 Reporting back from Small Group Discussions, Session 3

13:45-14:15 Plenary Discussion – Questions and Comments

14:15-14:30 Report on Participants’ Evaluation Analysis  
*H.E. Mr. Noulinh Sinbandith*  
Vice President, STENO

14:30-14:40 Summary and Conclusions by Chairman, followed by Closing Afternoon Tea  
Hand-out typed-up Questions raised in Small Group Discussions, Sessions 1 & 2

**Note:** All documents handed out were available in both Lao and English.
# List of Attendees

## PCPP Workshop on NT2 RAP
**Vientiane, 21-22 January 1999**

### List of Actual Attendees

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td><strong>Central Government Representatives &amp; Agencies</strong></td>
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<tr>
<td><strong>Prime Minister’s Office</strong></td>
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<tr>
<td>Xayxengly Tengbliacheu</td>
<td>Minister, President Central Leading Committee for Rural Development</td>
<td>Prime Minister’s Office</td>
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<tr>
<td>Philavanh Nasoukkoum</td>
<td>Officer CLCRD</td>
<td>Prime Minister’s Office</td>
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<tr>
<td><strong>STENO</strong></td>
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<tr>
<td>Noulinh Sinbandith</td>
<td>Vice President</td>
<td>STENO</td>
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<tr>
<td>Viengsavanh Douangsavanh</td>
<td>Deputy Director, Department of Data &amp; Information</td>
<td>STENO</td>
</tr>
<tr>
<td>Sayaveth Vixay</td>
<td>Head of Division</td>
<td>STENO</td>
</tr>
<tr>
<td>Ketkeo Salichan</td>
<td>Officer</td>
<td>Dept. of Data &amp; Information, STENO</td>
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<tr>
<td>Phimpha Outhachack</td>
<td>Officer</td>
<td>Dept. of Data &amp; Information, STENO</td>
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<tr>
<td>Somdeth Souvannaphasy</td>
<td>Officer</td>
<td>Dept. of Data &amp; Information, STENO</td>
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<tr>
<td>Somsanouk Phommakhot</td>
<td>Officer</td>
<td>STENO</td>
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<tr>
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<tr>
<td>Soumboun Manolom</td>
<td>Deputy Director</td>
<td>Electricity Department, MIH</td>
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<tr>
<td>Bounsalong Southidara</td>
<td>GOL NT2 Project Office, Resettlement Committee Member</td>
<td>Ministry of Industry &amp; Handicrafts</td>
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<tr>
<td>Phalim Daravong</td>
<td>Officer</td>
<td>Ministry of Industry &amp; Handicrafts</td>
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<tr>
<td>Vichit Daradsavong</td>
<td>Officer</td>
<td>GOL NT2 Office, MIH</td>
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<td><strong>Ministry of Foreign Affairs</strong></td>
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<td>Done Somvorachit</td>
<td>Director</td>
<td>Press Dept., Ministry of Foreign Affairs</td>
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<td><strong>State Planning Committee</strong></td>
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<tr>
<td>Somphong Moungkhounvilay</td>
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<td>State Planning Committee</td>
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<td>Somdy Douangdy</td>
<td>Director</td>
<td>Planning Dept., State Planning Committee</td>
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<tr>
<td>Sirivanh Konthapan</td>
<td>Economic Research Institute</td>
<td>State Planning Committee</td>
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<tr>
<td>Vixay Homsombath</td>
<td>Officer</td>
<td>State Planning Committee</td>
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## Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

### November 2004 Nam Theun 2 Project – Social Development Plan – Volume 1

<table>
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<tr>
<th>NAME</th>
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<tr>
<td><strong>Committee for Investment &amp; Cooperation</strong></td>
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<tr>
<td>Bouathong Phousalith</td>
<td>General Secretary</td>
<td>Domestic Investment Promotion, CIC</td>
</tr>
<tr>
<td>Khamleuang Sayarat</td>
<td>Director, GOL NT2 Project</td>
<td>Committee for Investment &amp; Cooperation</td>
</tr>
<tr>
<td>Sichat Bounsakittilat</td>
<td>Director</td>
<td>Hydropower Division, CIC</td>
</tr>
<tr>
<td>Bounmy Thepsimeuang</td>
<td>Director</td>
<td>Theun 1 Hydropower Project, CIC</td>
</tr>
<tr>
<td>Hoy Phomvisouk</td>
<td>Manager of Resettlement Management Unit NT2</td>
<td>Domestic Investment Promotion, CIC</td>
</tr>
<tr>
<td><strong>Ministry of Information &amp; Culture</strong></td>
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<tr>
<td>Bouasone Phongphavanh</td>
<td>Director</td>
<td>Mass Media, Ministry of Information &amp; Culture</td>
</tr>
<tr>
<td>Bounhom Chanthamat</td>
<td>Acting Director</td>
<td>Dept. of Museums &amp; Archaeology, Ministry of Information &amp; Culture</td>
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<td><strong>Ministry of Agriculture &amp; Forestry</strong></td>
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<tr>
<td>Bounthong Saysida</td>
<td>Deputy Director</td>
<td>Department of Forestry, MAF</td>
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<td><strong>MTCPC</strong></td>
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<tr>
<td>Phouangphan Souvannabout</td>
<td>Head of Technical Division/Liaison Person</td>
<td>Ministry of Transport, Communication, Post &amp; Construction</td>
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<td>TICA</td>
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<td><strong>Ministry of Justice</strong></td>
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<tr>
<td>Bounheng Phimmanivong</td>
<td>Legal Specialist</td>
<td>Ministry of Justice</td>
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<td>Phitthanousone</td>
<td>Deputy Head, Environmental Division</td>
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<tr>
<td>Bouasy Lovanxay</td>
<td>Vice Chairman</td>
<td>Economic &amp; Finance Commission, National Assembly</td>
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<tr>
<td>Samane Souvannasao</td>
<td>Senior Officer</td>
<td>National Assembly</td>
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<tr>
<td>Phonesavanh Khotsouvanh</td>
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<td>Bank of Lao PDR</td>
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<td>Thongma Khamsenenam</td>
<td>Chief of Cabinet</td>
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<td>Pheng Lasoukanh</td>
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<tr>
<td>Onesy Saengmouang</td>
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### Lao Youth Union

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<tr>
<td>Khamla Xaytha</td>
<td>Representative</td>
<td>Central Lao Youth Union</td>
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### Lao Media

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<tr>
<td>Anoulack Khammalavong</td>
<td>Journalist</td>
<td>Vientiane Times</td>
</tr>
<tr>
<td>Sisay Vilaysack</td>
<td>Sports Reporter, Photo Journalist</td>
<td>Vientiane Times</td>
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<tr>
<td>Bounta</td>
<td>Journalist</td>
<td>Lao Channel 3</td>
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<td>Daoheuang</td>
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<td>Manilay</td>
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<td>Lao National Radio</td>
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<td>Phonephet Sittivong</td>
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<td>Vongdeuane Somphanthong</td>
<td>Journalist</td>
<td>KPL</td>
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<tr>
<td>Douangta Manokoun</td>
<td>Rédacteur en chef</td>
<td>Le Rénovateur Newspaper</td>
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<tr>
<td>Michel Leroy</td>
<td>Writer</td>
<td>Le Rénovateur Newspaper</td>
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### Lao NGOs and Other Organizations

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<tr>
<td>Bountheung Menvilay</td>
<td>Head of Disaster Preparedness-Relief Dept.</td>
<td>Lao Red Cross</td>
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<td>Kongphachanh</td>
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<td>Dongnasok Tai Village</td>
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<tr>
<td>Darouny Rattanavong</td>
<td>Managing Director</td>
<td>Vientiane International Consultant</td>
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<td>Khambone Thirphouth</td>
<td>Head of Documentation Dept.</td>
<td>Institute of Cultural Research</td>
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<td>Maninout Saming</td>
<td>Independent</td>
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<td>Soulivanh Sithprasay</td>
<td>Independent</td>
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### Province, District & Village Representatives

#### Khammouane Province

<table>
<thead>
<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>Khen Phalivong</td>
<td>Governor, Chairman of NT2 Resettlement Committee</td>
<td>Khammouane Province</td>
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<tr>
<td>Thayaphone Singthong</td>
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<td>Khammouane Province</td>
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<td>Sivixay Soukkalat</td>
<td>Director</td>
<td>Agriculture &amp; Forestry Dept., Khammouane</td>
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<td>Oneta Thiemchanda</td>
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**Lao Youth Union**

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<tr>
<td>Somkouane Inthalangsy</td>
<td>Provincial President</td>
<td>Lao Youth Union, Khammouane</td>
</tr>
</tbody>
</table>

**Lao Women’s Union**

<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>Keo Oula Souliyadeth</td>
<td>Vice President</td>
<td>LWU, Khammouane Province</td>
</tr>
<tr>
<td>Phengsy Damkhamdy</td>
<td>District President</td>
<td>LWU, Nakai District</td>
</tr>
<tr>
<td>Keota Phengsavat</td>
<td>District President</td>
<td>LWU, Mahaxai District</td>
</tr>
<tr>
<td>Vongvilay</td>
<td>District President</td>
<td>Khamkeut District</td>
</tr>
<tr>
<td>Khamsy</td>
<td>Village President</td>
<td>LWU, Ban Sop On</td>
</tr>
<tr>
<td>One</td>
<td>Village President</td>
<td>LWU, Ban Nakai Neua</td>
</tr>
<tr>
<td>Khamkhiene Xayavongsouk</td>
<td>Village President</td>
<td>LWU, Ban Nam Phit</td>
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**Savannakhet Province**

<table>
<thead>
<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>Dr. Phengta Philakhphone</td>
<td>Director</td>
<td>Industry &amp; Handicraft Dept., Savannakhet Province</td>
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**Bolikhamxay Province**

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<tr>
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<tbody>
<tr>
<td>Leuam Somsivisay</td>
<td>Chief of Cabinet</td>
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**Nakai District**

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<thead>
<tr>
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<tbody>
<tr>
<td>Xat Songsavanh</td>
<td>Deputy Chief</td>
<td>Nakai District</td>
</tr>
<tr>
<td>Bounpone Chanthalath</td>
<td>Chief of Division</td>
<td>Agriculture &amp; Forestry Division, Nakai District</td>
</tr>
<tr>
<td>Banchong</td>
<td>Chief of Village</td>
<td>Ban Nakai Neua</td>
</tr>
<tr>
<td>Phone Phetoudone</td>
<td>Chief of Village</td>
<td>Ban Done</td>
</tr>
<tr>
<td>Tone</td>
<td>Elderly Person</td>
<td>Ban Done</td>
</tr>
<tr>
<td>Nonh</td>
<td>Chief of Village</td>
<td>Ban Phongsavang</td>
</tr>
<tr>
<td>Khouane</td>
<td>Chief of Village</td>
<td>Ban Sop Phene Village</td>
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<tr>
<td>Xiengkeo</td>
<td>Chief of Village</td>
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**Gnommalat District**

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<tr>
<td>Gna Boutsida</td>
<td>District Governor</td>
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<tr>
<td>Chard Lennalat</td>
<td>Chief of Cabinet</td>
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</tr>
<tr>
<td>Thongdy</td>
<td>Chief of Village</td>
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**Mahaxai District**

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<tr>
<td>Bouansone Sengdavong</td>
<td>District Chief</td>
<td>Mahaxai District</td>
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**Diplomatic Corps and Foreign Community in Vientiane**

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<tr>
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<tr>
<td>Renaud Lévy</td>
<td>Ambassador</td>
<td>French Embassy</td>
</tr>
<tr>
<td>Bouasvan Bouasy</td>
<td>Commercial Attaché</td>
<td>French Embassy</td>
</tr>
<tr>
<td>Felicity Volk</td>
<td>First Secretary</td>
<td>Australian Embassy</td>
</tr>
<tr>
<td>Alan Bowman</td>
<td>Second Secretary</td>
<td>Canadian Embassy</td>
</tr>
<tr>
<td>Tran Tho Ghi</td>
<td>Commercial Attaché</td>
<td>Vietnamese Embassy</td>
</tr>
<tr>
<td>Gérard Larose</td>
<td>Director</td>
<td>Agence Française de Developpement</td>
</tr>
<tr>
<td>NAME</td>
<td>TITLE</td>
<td>ORGANISATION</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Catherine Larose</td>
<td>Director</td>
<td>ORSTOM</td>
</tr>
<tr>
<td>Santi Sayarath</td>
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<td>ORSTOM</td>
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**International Organizations**

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<thead>
<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>Linda Schneider</td>
<td>Liaison Officer</td>
<td>World Bank</td>
</tr>
<tr>
<td>Lars Lund</td>
<td>Senior Social Scientist</td>
<td>World Bank</td>
</tr>
<tr>
<td>Kathryn McPhail</td>
<td>Social Policy and Resettlement Division</td>
<td>World Bank</td>
</tr>
<tr>
<td>Lee Talbot</td>
<td>Professor of Environmental Science, International Affairs and Public Policy, George Mason University</td>
<td>International Environmental and Social Panel of Experts</td>
</tr>
<tr>
<td>Thayer Scudder</td>
<td>Professor of Anthropology, California Institute of Technology</td>
<td>International Environmental and Social Panel of Experts</td>
</tr>
<tr>
<td>Tim Whitmore</td>
<td>Tropical Botanist, University of Cambridge</td>
<td>International Environmental and Social Panel of Experts</td>
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<tr>
<td>Jeffrey Avina</td>
<td>Deputy Resident Representative</td>
<td>UNDP</td>
</tr>
<tr>
<td>Mikiko Tanaka Sasaki</td>
<td>Assistant Resident Representative</td>
<td>UNDP</td>
</tr>
<tr>
<td>Laetitia van Haren</td>
<td>Consultant, Social Anthropologist</td>
<td>UNDP</td>
</tr>
<tr>
<td>Ratna Manivannan</td>
<td>Portfolio Manager</td>
<td>UNDP</td>
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<tr>
<td>Stuart Chape</td>
<td>Director, Lao Office</td>
<td>IUCN</td>
</tr>
<tr>
<td>John Baker</td>
<td>Project Manager</td>
<td>IUCN</td>
</tr>
<tr>
<td>Jiddo van Drunen</td>
<td>Representative</td>
<td>UNHCR</td>
</tr>
<tr>
<td>Yang Bao Ping</td>
<td></td>
<td>World Health Organization</td>
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<tr>
<td>Dr. Joachim Metzner</td>
<td>Senior Environmentalist</td>
<td>GTZ</td>
</tr>
<tr>
<td>Michael Hedemark</td>
<td>Country Program Coordinator</td>
<td>Wildlife Conservation Society</td>
</tr>
<tr>
<td>Philavanh Khamphanthong</td>
<td>Representative</td>
<td>Bahai Development Agency</td>
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**International Media**

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<tr>
<td>Frederik Balfour</td>
<td>Correspondent</td>
<td>Agence France Presse</td>
</tr>
<tr>
<td>Timo Sipola</td>
<td>Journalist</td>
<td>Finnish Broadcasting Co.</td>
</tr>
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**International Consultancy Firms, Scientists & Others**

<table>
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<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>Martin ter Woort</td>
<td>Senior Consultant</td>
<td>ACRES International Limited</td>
</tr>
<tr>
<td>Stephen Sparkes</td>
<td>Senior Social Scientist</td>
<td>NORPLAN</td>
</tr>
<tr>
<td>Alex Arter</td>
<td>Managing Director</td>
<td>ENTEC</td>
</tr>
<tr>
<td>Maria Aycrigg</td>
<td>Social Development Scientist</td>
<td>Environmental Resource Management</td>
</tr>
<tr>
<td>Dana Clark</td>
<td>Senior Attorney</td>
<td>Center for International Environmental Law</td>
</tr>
<tr>
<td>Elif Kendirli</td>
<td>Ph. D. Student</td>
<td>University of Melbourne</td>
</tr>
<tr>
<td>Miron Michel</td>
<td>Consultant</td>
<td>E.I.A. (Hydropower)</td>
</tr>
<tr>
<td>Bruce Shoemaker</td>
<td>Independent Researcher</td>
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### Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

November 2004  Nam Theun 2 Project – Social Development Plan – Volume 1

<table>
<thead>
<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>Alexandra Tissot</td>
<td>Social Scientist</td>
<td></td>
</tr>
<tr>
<td>Chanthy Phansavath</td>
<td>Country Manager</td>
<td>ATLAS COPCO</td>
</tr>
<tr>
<td>Charles Jeanneret</td>
<td>Chief Technical Adviser</td>
<td>State Planning Committee</td>
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**Developer (NTEC)**

<table>
<thead>
<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>J-Ch. Delvallet</td>
<td>Project Director</td>
</tr>
<tr>
<td>Peter Goldston</td>
<td>Technical Director</td>
</tr>
<tr>
<td>Loy Chansavat</td>
<td>General Manager, Resettlement</td>
</tr>
<tr>
<td>Patrick Dye</td>
<td>Operations Manager</td>
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<tr>
<td>Steve Kirby</td>
<td>Manager, Technical Support</td>
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**Independent Facilitators**

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<tbody>
<tr>
<td>Mary Flipse</td>
<td>Independent Facilitator</td>
<td>Dirksen Flipse Doran &amp; Lê</td>
</tr>
<tr>
<td>Somsanouk Mixay</td>
<td>Independent Facilitator</td>
<td>Vientiane Times</td>
</tr>
<tr>
<td>Maliphet Soukhaseum</td>
<td>Independent Facilitator</td>
<td>UNICEF</td>
</tr>
<tr>
<td>Bouakhaikhone Savengseuksa</td>
<td>Independent Facilitator</td>
<td>National University of Laos</td>
</tr>
<tr>
<td>Khamkhong Kongvongsa</td>
<td>Independent Facilitator</td>
<td>Ministry of Information &amp; Culture</td>
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**Translators**

<table>
<thead>
<tr>
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<th>Organisation</th>
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<tbody>
<tr>
<td>Soradeth Bannavong</td>
<td>Translator</td>
<td>KPL</td>
</tr>
<tr>
<td>Dethmahinh Souphanh</td>
<td>Translator</td>
<td>National Library</td>
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</table>

**Total Attendees**: 136
### Evaluation Questionnaire and Response

**22 January, 1999**
**Nam Theun 2**

Public Consultation and Participation Process on Resettlement Action Plan

Participants Evaluation of Workshop

Please take a few minutes to answer these questions.

There is no need to sign your name.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Any Comments</th>
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<tbody>
<tr>
<td>1.</td>
<td>Do you consider the workshop well organized?</td>
<td>71</td>
<td>1</td>
<td></td>
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<tr>
<td>2.</td>
<td>Was the RAP well explained?</td>
<td>70</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Did you find the small group discussions useful?</td>
<td>70</td>
<td>2</td>
<td></td>
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<tr>
<td>4.</td>
<td>Did you make any comments or ask questions during the sessions?</td>
<td>53</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Did you receive an adequate response or explanation?</td>
<td>59</td>
<td>10</td>
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</tbody>
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### Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

#### Social Development Plan – Volume 1

<table>
<thead>
<tr>
<th>No.</th>
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<th>YES</th>
<th>NO</th>
<th>Any Comments</th>
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<tbody>
<tr>
<td>6.</td>
<td>Did you find the printed material provided useful?</td>
<td>71</td>
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<tr>
<td>7.</td>
<td>Do you now feel that you understand the RAP better than before?</td>
<td>69</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Based on what you now know, do you think the RAP is adequate?</td>
<td>59</td>
<td>8</td>
<td></td>
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<tr>
<td>9.</td>
<td>Do you think the workshop has served its purpose?</td>
<td>63</td>
<td>1</td>
<td></td>
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<tr>
<td>10.</td>
<td>Are you in favor of NT2 and the RAP proceeding?</td>
<td>65</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

This space for any additional comments and suggestion:

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This space for any additional comments and suggestion:
Opening Address
H.E. Xaixengly Tengbiacheu,
Minister to the Prime Minister’s Office,
President of Central Leading Committee for Rural Development,
At the Inaugural Session of the Public Consultation Workshop & Public Consultation on the Final Draft of RAP for NT2
Vientiane, January 21-22, 1999

- Mr. Khen Phalivong, Governor of Khammouane Province,
  Chairman of the NT2 Resettlement Committee
- Ladies and Gentlemen,

I am honored and very pleased to represent the Lao government at this inaugural session of the Public Consultation and Public Participation on the final draft of RAP for NT2, being opened here today. On this occasion, I would like to express my pleasure in warmly welcoming the participants coming from the grassroots, local communities and representatives of the government’s institutions for having kindly accepted the invitation to this consultation. I also like to welcome members of the diplomatic corps, representatives of the international organizations, international scientists and experts, the officials of the NGOs for having shown interest in the social and environmental aspects of the NT2.

Distinguished delegates,

In the present Asian economic crisis, the Lao PDR needs to strive even more to receive export income. The NT2 Hydropower Project is considered to be highly efficient from technical as well as from economic stand points. The NT2 price can compete in the market. Being as it is, the Project can attract foreign investment. Hence, this Project is one of the few available options for the country as far as export is concerned.

The NT2 is one project that can bring the Lao Government with a significant amount of hard foreign currencies. Almost half of the net revenue from selling electricity will go to the Government in the form of taxes on resources (royalties), income tax and dividends. The revenue derived from the project will permit the Lao Government to alleviate poverty in the country through developing socio-economic infrastructure such as roads, irrigation, schools and hospitals and others.

One particular and direct benefit among others which the project affected people will receive has to do with the Resettlement Action Plan whose true nature can be said to be an integrated rural development plan. In effect, the Resettlement Action Plan clearly reflects the policy and prioritized programmes of the government. The plan, in addition, also takes into account the policy and Operational Guidelines of the World Bank, thus providing the plan an international standard in quality.
The NT2 Project will provide a good opportunity to Lao entrepreneurs and construction service providers to participate in the undertaking by providing construction materials and subcontracting services. Additionally, the project will provide jobs to Lao technicians, professionals and workers in general during the construction and operational phases. Equally important is that during the construction phase as well as throughout the concession period, the project will provide funds for the protection and conservation of the NT2 catchment area, which has special international value due to its unique biodiversity features.

Because of the extensive beneficial nature of the NT2 which the Lao PDR will gain from the project, the Lao Government has decided to make NT2 its top priority hydropower export project.

Ladies and Gentlemen,

The Lao people and government traditionally have exercised consultation and public participation in decision making process in matters related to the well being and the future of the people, and this process is not neglected in the case of NT2. We are very pleased to see that within the framework of NT2 some fundamental studies related to the project have been carried out and in this connection, we are glad to say that the designing of the resettlement plan has been developed through the process of consultation with and participation of the affected people.

The rich pool of opinions, and constructive criticism expressed at the various consultations and public participation, held nearly two hundred occasions at the grassroots, regional and national levels, were studied and incorporated to improve the quality of the RAP. Hence, the public consultation and public participation process required by the Bank goes along well with the country’s community decision-making tradition which has facilitated the said process in a systematic manner.

Lastly, I would like to hope that this public consultation workshop will make an added contribution to improving the resettlement action plan, and this in turn will meet the aspiration of the people affected by the NT2 Project. This is to say that the RAP will acquire an internationally accepted standard required by the World Bank’s policy and directives.

I would like to wish the workshop every success!

Thank you.
F-7  CONCLUDING ADDRESS

Concluding Speech
by H.E. Mr. Khen Phalivong, Governor of Khammouane,
Chairman of the Nam Theun 2 Resettlement Committee
at the National Public Consultation and Participation Workshop
on Resettlement Action Plan for Nam Theun 2 Hydroelectric Project

Vientiane, January 21-22, 1999

- Respected members of the Presidium,
- Ladies and Gentlemen,

This workshop, which was attended by 136 persons, 35% of whom were from the grassroots and villages, approaches the end of its second and last day.

The workshop has listened to the presentation of the final draft of the Resettlement Action Plan (RAP) by the representatives of the Government, independent consultants and experts and by representatives of NTEC. Following the presentation, the workshop’s participants extensively discussed issues related to the papers in small group discussion during which a rich pool of ideas and comments have been forwarded, and we would like to say these comments are very much appreciated.

Our workshop was honored by the presence of H.E. Xayxengly Tengbliacheu, Minister to the Prime Minister’s Office, President of the Central Leading Committee for Rural Development and we heard him speaking about rich lessons in rural development in the country. In addition, the workshop heard extensive and precious experience drawn from international lessons on resettlement by Professor Thayer Scudder, member of the International Environmental and Social Panel of Experts on NT2. Compared with these international experiences, we are proud to hear his positive evaluation of the NT2 Resettlement Action Plan and the related extensive resettlement work prepared by the Government of Laos and NTEC. Professor Scudder, we will carefully pay special attention to your valuable comments. Having said that, we hope that your International Environmental and Social Panel will continue providing us with ideas and advice so that we can implement the NT2 Project, particularly the RAP, with success.

Many questions have been raised and opinions expressed at this workshop. They were raised with a purpose to better understand the issue. We consider them constructive and useful for improving the RAP.

Ladies and Gentlemen,

As a result of this workshop and the previous ones as well, we are pleased to observe that consensus has been reached. The NT2 Project Affected People as well as the authorities at all levels unitedly approve the NT2 Project, the number one priority of the Government. They welcome and agree to the RAP.

In the next few weeks, the Resettlement Committee and NTEC will study and add opinions and comments expressed at this workshop into the resettlement plan that we have been talking about. Then the plan will be submitted to the Government for approval. The Public Consultation and Participation Workshop on Resettlement Action Plan for NT2, conducted for the last two days is about to close. But the public consultation and participation will go on with people who will be affected by the project. That is to say detailed consultation at household level on how to achieve the plan.
The Resettlement Committee considers that this plan has every condition for success. These favorable factors for successful resettlement include the following:

1. Clear Government NT2 policy on resettlement,
2. Good natural resource base,
3. Good relocation sites acquired, following the decision by villagers,
4. Good economic prospects,
5. Adequate financial resources,
6. Appropriate resettlement organization,
7. Active support from:
   - The Government,
   - The Project, and
   - The resettlers.

Based on the above-mentioned factors, the Resettlement Committee, the other concerned Government institutions, as well as the administrative authorities at provincial and grassroots level, have a strong belief that we will be able to execute the plan with success.

Finally, on behalf of the workshop’s presidium, I would like to express my wholehearted thanks to the participants for having sacrificed your time and expressed your keen interest from the beginning till the end of the two day workshop. I would like to wish you the very best of health and success.

Thank you for your attention!
Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

F-8   NT2 IN THE PERSPECTIVE OF INTERNATIONAL RESETTLEMENT EXPERIENCE

The POE attended the January 1999 National Public Consultation on the RAP. One of its members, Professor Thayer Scudder of the California Institute of Technology and a recognized authority on resettlement, was kind enough to address the Workshop on how the NT2 proposed resettlement can be viewed in the context of international experience. There are a number of valuable lessons that can be learned through this comparison. Hence Professor Scudder’s remarks are presented here in full.

Introduction

Implementing a successful resettlement program has proved to be the most difficult task associated with hydropower projects.

Sustainable success cases are few in spite of the existence of international guidelines, which were first pioneered by the World Bank.

I think the major reason for this situation is an inadequate understanding of the nature of what I call the resettlement process. Since the 1950s there have been over 50 studies of dam resettlement around the world. Some began before removal and have followed people for many years after resettlement. It is because of this international experience that we can generalize about the impacts of resettlement on people, and on their responses to those impacts. And we can apply that knowledge to the NT2 situation.

I would like to briefly describe this process as it relates to planning and implementation to a SUCCESSFUL resettlement program. Please note the emphasis on success. That means internationally I am only talking about a small number of projects since the majority – as analyzed by various researchers including the World Bank’s former sociological adviser – unfortunately end up impoverishing a majority of resetting households.

I define success in terms of program implementation that is environmentally, economically, institutionally and culturally sustainable. Granted the fact that the NT2 resettlers belong to ethnic minorities, the emphasis on cultural sustainability is important. By institutional sustainability I mean ensuring that the resettled population develop sufficient institutional capacity to compete for, and manage, their share of national resources. The time frame for successful resettlement is two generations and the process is divided into four stages. As I describe these, I will relate them to NT2 resettlement and the RAP.

Stage 1

The first stage is the pre-relocation planning stage. It requires accurate identification of the population to be removed, a careful pre-resettlement benchmark demographic, epidemiological and socio-economic survey against which subsequent changes in living standards can be compared. And it requires a plan for implementation.

By international standards, the NT2 resettlement planning process is good. There are two major reasons for this.

Rarely completed on time elsewhere, in the NT2 case adequate demographic and socio-economic benchmark surveys have been carried out. On the other hand, further public health (especially nutritional) surveys are needed in my opinion. As for the evolving Resettlement Action Plan that is world class – simply excellent.

Since our last visit a year ago, a series of important planning events have taken place. Especially important has been increasing decentralization of the planning process from Vientiane to the provincial
Appendix F: National Public Consultation and Participation Workshop on the Resettlement Action Plan

and district levels. Our Panel is especially supportive of the re-organization of the Resettlement Committee with the Governor and Vice-Governor of Khammouane Province as chair and vice-chair. Also important is the increasing incorporation of district personnel into the planning process although more emphasis is needed on planning “with” the villagers as opposed to planning “for” them. Selection of a Pilot Village for a trial implementation of the resettlement plan starting in the next few months is also a major step forward.

The RAP, of course, must continue to evolve as the comments of the four working groups at the January 21-22, 1999 Public Consultation and Participation Workshop have already indicated. Monitoring, especially longitudinal nutritional monitoring will be required beyond 2006. At the above Workshop, NTEC consultant Martin ter Woort referred to the challenge of administering the budget effectively and efficiently. A Joint Trust Fund, with UNDP assistance, like the UXO and HIV/AIDS Trust Funds I suspect would be the best way to proceed. Wider community and village trusts should also be considered.

Stage 2

The second stage commences the implementation phase. It includes the physical removal of people and their initial adaptation to new conditions. The world experience is that this stage is very difficult for those resettled. Not only do they have to complete new houses and prepare new fields, but they also have to adjust to new economic opportunities – RAP’s livelihood system in the NT2 case. And they have to adjust to an increased government administrative presence which will inevitably curtail some of the resettlers’ previous freedom of action; hunting for example. As with Lao resettlement of hill people to the lowlands in recent years, rates of illness and even death rates may go up.

World wide, the living standards of a majority of resettlers tend to drop during this stage which can be expected to last for at least two years following in most cases. Indeed, there is a tendency of project related – living standards to be begin dropping even before removal. In anticipation of resettlement, that is because project affected people defer investments like clearing new fields or starting new businesses which they would have otherwise done. This situation is not sufficiently understood by planners who are apt to expect their plans to restore or even improve living standard during the first year. Will the NT2 case be an exception here? Perhaps it will for several reasons. First, most people – partly because of the war – are very poor to start with. Second, resettlement will be within culturally familiar areas – in many cases only a few kilometres from their current villages.

Third and very important the RAP is designed to significantly improve living standards by providing a range of opportunities. To compensate for the trauma and stress associated with this stage, even to restore pre-project living standards, it is essential to improve them. Designed to cover an eight-year period starting this year, the RAP intends to first restore and then improve living standards. Its intentions therefore are to exceed World Bank Guidelines. While World Bank Guidelines emphasize that resettlement projects must be development projects, and that resettlers should be project beneficiaries, the Bank’s guidelines nonetheless give governments a fallback position of merely restoring living standards. That I believe to be a major mistake since the international experience is that mere restoration actually tends to leave a majority of resettlers worse off. So the emphasis in the RAP on improving living standards not only is essential but is receiving increasingly international attention. Examples are the Guidelines of the private sectors’ International Commission on Large Dams, the national policy of the People’s Republic of China, and a recent evaluation of dam projects by the World Bank itself.

Despite the RAP’s excellence, there is no basis, however, for optimism. Many things can go wrong during those first eight years. Even if the development program proceeds as intended some households will find an initial drop in their living standards. I suspect, for example, that it will take a number of years for villagers with large buffalo herds to restore their living standards since they will only be allowed to take a portion of their buffaloes to resettlement sites. There is also evidence that even today some Nakai Plateau villagers are putting their lives on hold because of the project. During the recent visit of the World Bank’s Independent Advisory Group, for example, villagers in Ban Done are said to
have told the mission that they had stopped such activities as house construction and house repair, and new cultivation.

A more immediate problem may be an attempt on the part of government officials to increase the size of resettlement villages. World wide that temptation to increase administrative control is a constant threat to resettlement sustainability; indeed it is a recipe for resettlement failure. During our visit to a probable pilot resettlement community on the Nakai Plateau, of special concern to our Panel was discussion among officials about consolidating a number of small villages into units of at least 50 households. That figure of 50 households was related to the provision of primary schooling. Universal primary education is, of course, essential. However, the primary reasons for determining the size of resettlement villages MUST not be the preference of officials. Rather it MUST be the preference of the villagers themselves linked to the capacity of the resettlement sites to provide the necessary economic opportunities.

The mid-1970s resettlement in Ban Tha Moang in the Nakai-Nam Theun NBCA illustrates the costs resulting from consolidating villages for the primary purpose of increasing administrative and social services. There unacceptably high death rates occurred during the initial years, and today there are inadequate forest products in surrounding areas, while the inhabitants continue finding it difficult to undertake cooperative activities.

**Stage 3**

The third stage in a successful resettlement process is the stage of economic and community development. If the RAP is effectively implemented I would expect this stage to begin accelerating during the third and fourth years. What characterizes this stage is a fascinating shift in the development strategies of a majority of resettling households from a risk-adverse position to a risk taking one. It has been best analyzed for 35,000 people resettled in what is now Zambia because of the first mainstream dam on the Zambezi and the 50,000 Egyptian Nubians resettled in connection with Egypt’s Aswan High Dam.

In both cases Stage 3 was characterized by rapid development that involved a majority of households. While that development has been sustainable in the Egyptian case, it was unsustainable in the Zambian one so that twenty years after their removal the majority has fallen back into extreme poverty.

What is interesting about the third stage is that it shows that a majority of resettling households will respond to new opportunities once they have adjusted to their resettlement sites. Commencing over three years after removal, in both the Egyptian and Zambian cases the third stage was characterized by economic development, by greatly increased levels of education, and by a blossoming of culture. In the Egyptian case, the resettlers came to dominate the political economy of the primary location to which they were moved.

However for Stage three to occur major development opportunities must materialize in the Resettlement Areas.

The NT2 RAP is supposed to provide those opportunities through revenue from agriculture (including livestock), forest management, a reservoir fishery, handicrafts, and wage employment. Though the resettling households may appear conservative to outsiders, the world experience is that if realistic opportunities are present a majority of resettling households will seize them.

**Stage 4**

Stage 4 brings the process for a successful resettlement program to an end. It entails two activities. One is handing over an improved livelihood to the second generation of settlers. For that livelihood to be sustainable, that second generation, at the very minimum, must have the institutional capacity to compete for their share of national, provincial and district resources.
The second activity involves the project authority, the NTPC in the NT2 case, successfully handing over its responsibilities to the resettled communities, the line ministries and other involved agencies such as the Lao Women’s Union. To deal with ongoing project related impacts, there also should be a Trust Fund, preferably financed with revenue from the sale of project electricity.

Such a fund has been pioneered very successfully since the 1980s in China where it is called a “Remaining Problems Fund”. There will always be remaining problems which exceed the capacity of resettled communities and the budgets of line ministries. A probable example in the NT2 case would be replacement of the ferry boats that will be required to connect the Nakai Plateau across the full reservoir with the Nakai-Nam Theun NBCA.

In summary, successful resettlement involves dealing with a complicated process lasting more than a generation and characterized by different constraints and opportunities at different times.”
APPENDIX G

BIBLIOGRAPHY
Appendix G: Bibliography

[Note: this bibliography covers texts and documents used up until early 2002. The extensive materials used to continue to refine the plans since that date - early 2002 to end 2004 - will be added to this bibliography, and the bibliography reorganized in the final version of the SDP]

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