

I. INTRODUCTION

1.1. BACKGROUND

With financial support from World Bank, EdC has launched the construction project of two transmission lines from the Laos Border to Stung Treng and from the Vietnam Border to Kampong Cham; this project is a part of the Greater Mekong Sub-region (GMS) Power Project. As clearly defined by the Ministry of Environment, the project is going to be carried out with environmental sustainability of the affected areas along the ROW.

To effectively evaluate the impact of the project, KEPCO has carried out IEE in an attempt to identify the number of local residents affected by the project, the nature and degree of impact on them, measures taken to minimize the effects and compensation, and other assistance to be delivered to affected people for unavoidable impacts.

The social impacts from the transmission lines will be the relocation of households and dwellings and other buildings within the ROW during construction, and land use restrictions within the ROW during operation.

The primary bio-physical impacts, associated with transmission line construction and operation are land use change, vegetation loss, minor habitat loss, wildlife death, and minor erosion.

1.2. PURPOSE OF THE PROJECT

The purpose of this Resettlement Plan is to:

- Identify design, construction and maintenance measures to avoid or mitigate potential adverse impacts, to be incorporated into the final design.
- Identify the people affected by the both transmission lined and all substation sites as those who possess all part of physical and non-physical assets, including homes, homesteads, productive lands, commercial properties, tenancy, income-earning opportunities, social and cultural activities and relationship, and other losses.
- Assist to develop their social and economic potential in order to improve or at least restore their incomes and living standards to pre-project level and are not worse off than they would have been without the project.

1.3. LEGAL AND POLICY FRAMEWORK

There is no specific government policy relating to the details of resettlement and compensation in Cambodia, other than general requirements for compensation to be provided. A policy has been developed for the project taking into account relevant Cambodia and World Bank Laws and Policies.

1.3.1. Cambodia Relevant Laws

Cambodia laws relating to resettlement and compensation include constitution of Cambodia issued on September 24, 1993, Land Law, Electricity Law, Decrees and sub-decrees.

1.3.2. World Bank Operational Policy

World Bank requires that land acquisition and resettlement be minimized as much as possible, and compensation/resettlement be carried out so as to maintain or improve standards of living of project-affected people.

World Bank policy in relation to resettlement and compensation are set out in Operational Policy (O.P.) 4.12: Involuntary Resettlement as include later in this report.

II. DESCRIPTION OF THE PROJECT

2.1. PROJECT AREA

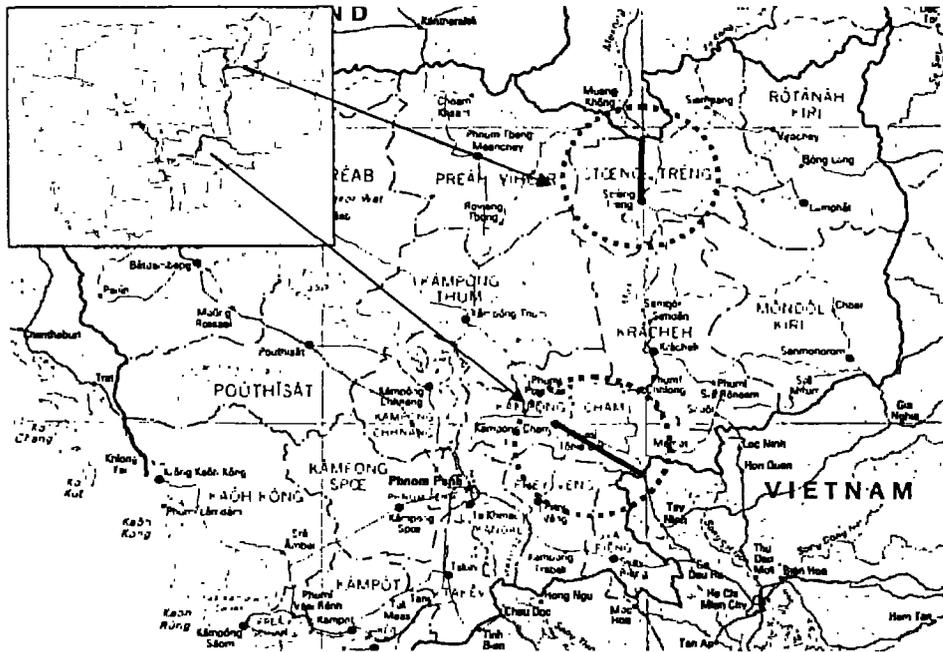


Figure 2.1: Project Area

The project study area encompasses 43 village in 10 communes, Chiro 2, Chub, Mongreav, Suong, Srolab, Agncherm, Kandal Chrum, Kaung Kang, Kraek, Trapaing Phlong, 2 districts namely Tbong Knum District, Ponhea Kraek District, Kampong Cham Province and 6 villages in 1 commune, Samakey, Stung Treng districts, Stung Treng Province.

2.2. SCOPE OF THE PROJECT

The followings are the scope and extent of the project:

- 115kV double circuit transmission line from Vietnam Border - Kraek Substation – Suong Substation - Kampong Cham Substation, 66 km of concrete poles.
- 115kV double circuit transmission line from Laos Border to Stung Treng Substation, 56 km of steel lattice towers.
- Four substations, located in Kraek, Suong, Kompong Cham, and Stung Treng.
- Clearance of a 30 m width along the transmission line (15m from the central line).

- Resettlement clearance of a power line width along the transmission line (6.5~8m from the central power line).
- Three substations at Kampong Cham Province to be cleared are about 70m x 70m and one substation at Stung Treng to be cleared is about 50m x 70 m.

2.3. AMOUNT OF LAND REQUIRED FOR CONSTRUCTION

In general the project will require the following area of land:

- 0.27 ha of land for pole footing based transmission line from Vietnam Border to Kampong Cham Province.
- 0.40 ha of land for tower footing based transmission line from Laos Border to Stung Treng Province.
- 1.88 ha of land for the four substations includes the access roads for the four substations.

Construction of 115 kV transmission lines and substations will require the acquisition of land or, in the case of transmission lines, restriction of land use below the power lines. All substation sites have been identified. The four substations are located on private lands. Towers for the transmission lines include standard lattice towers for which an area of 25 m² (4x4 m plus 1 m) is required per tower. The number and location of towers were determined during detailed design; however, each land owner will lose only a small area for a tower.

There is not much agricultural land within the proposed alignments. When it is necessary to construct transmission lines across agricultural land, the EdC will permanently acquire the land on which the tower is to be situated. In the unlikely event that it is necessary to acquire land for towers, compensation will be provided to the affected persons (APs) on whose land the tower(s) will be located.

2.4. TRANSMISSION LINE ROUTE

- Transmission line from the Vietnam Border to Kampong Cham

It is a 66 km route running mainly on the southern side of National Road 7 (NR7) and parallel to the road in a direct line from Kampong Cham substation to the border. The route is generally set back 15 – 25 m from NR 7 to avoid houses near the roadside and minimize line length. There is major change in direction at a cross line heading towards the border and then the route turns southeast and runs along the road 72.

- Transmission line from the Laos Border to Stung Treng

This route from the Laos Border to Stung Treng, is approximately 56 km, and runs along the west side of NR7. It would be set back from the road by 15 – 25m in order to reduce environment impact. Most trees and plants along the west side of the road have already been pruned, so that the necessary conductor clearance distance will be provided. There are few

settlements and individual houses along the route.



2.5. TRANSMISSION LINE DESIGN

- From the Vietnam Border to Kampong Cham

The chosen nominal voltage level of the 115 kV corresponds to the intended voltage of the interconnection with Vietnam.

This transmission line would be essential to supply power to many customers therefore; it is necessary to determine whether to construct a double circuit transmission line. A double circuit transmission line will be installed i) to maintain N-1 level reliability, that is, in the case of the loss of one element of the power system, the security of the system should not be affected ii) to save 10% in construction cost iii) to avoid a forced outage (one – two months during construction) incurred to install additional circuit in the future, which will affect many households, factories and the public.

- From the Laos Border to Stung Treng

The chosen nominal voltage level of the 115kV corresponds to the intended voltage of interconnection with Laos.

Although demand at Stung Treng may currently be low, MIME emphasized the importance of Stung Treng as the hub in the northeast which is a focus area of a regional development triangle among Cambodia, Laos and Vietnam. Therefore, double circuit transmission lines will be installed to satisfy above similar reasons to those stated in Kompong Cham.

Table 2.1: Transmission Line Design Features

Design Feature	Line	
	VN –Kampong Cham	Laos – Stung Treng
Line Length	66 km	56 km
Type of Support	Pole	Steel Lattice Tower
Number of Tower (Pole)	691	160
Average span between Tower (Pole)	80-100	300-350
Tree Clearance Width (From central power line)	15 m	15 m
Resettlement Clearance Width(ROW) (From central power line)	6.5 m	8 m
Tower (Pole) height	20 m	32 m
Substations	70 m x 70 m	50 m x 70 m

Figure 2.5: Similar 115 kV Pole and Tower

2.6. TREE CLEARANCE

Trees will be either removed or periodically pruned to provide necessary line clearance, whilst minor pruning will be required for insulated distribution lines. The SWER alignment will avoid palm trees (primarily sugar palms) in preference to trees grown for wood and smaller fruit trees as many of these trees can be pruned to provide the necessary line clearance without killing the trees. If growing tip of palm is removed then the tree dies.

Vegetation clearance distances will be maintained by pruning regrowth every 1-2 years. Cuttings will be offered to the local resident if the pruned tree is privately owned, or offered to the community for communal trees, but if cutting are not required then the contractor will be responsible for their disposal. It is proposed that pruning contracts be awarded to local people to maintain line clearances.

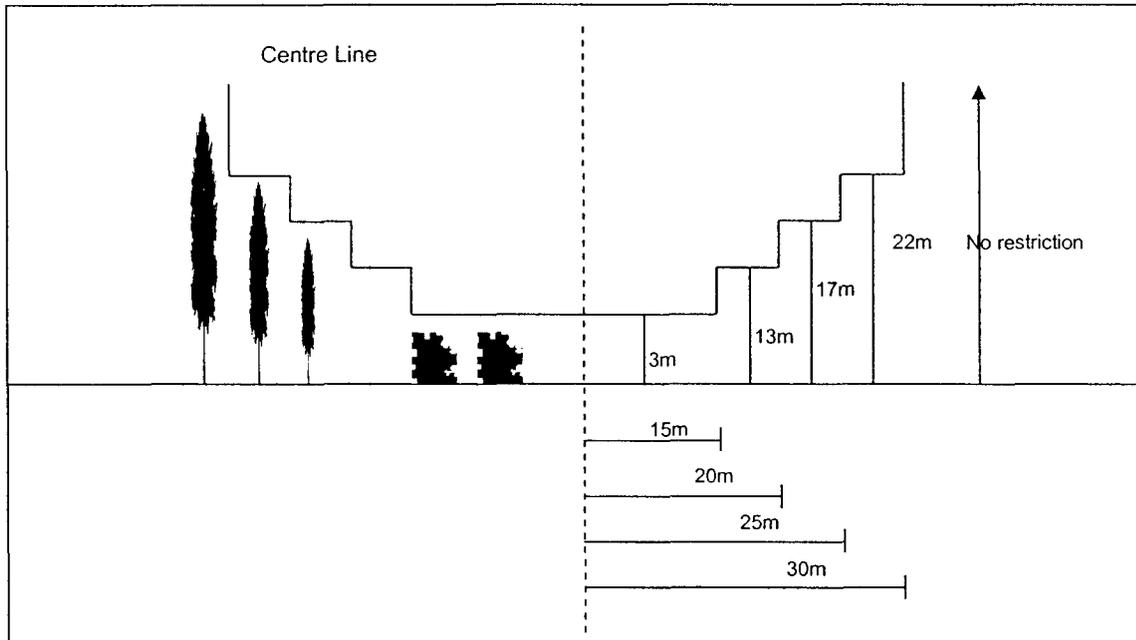


Figure 2.4: Tree Clearance along the ROW

2.7. RESETTLEMENT CLEARANCE (ROW)

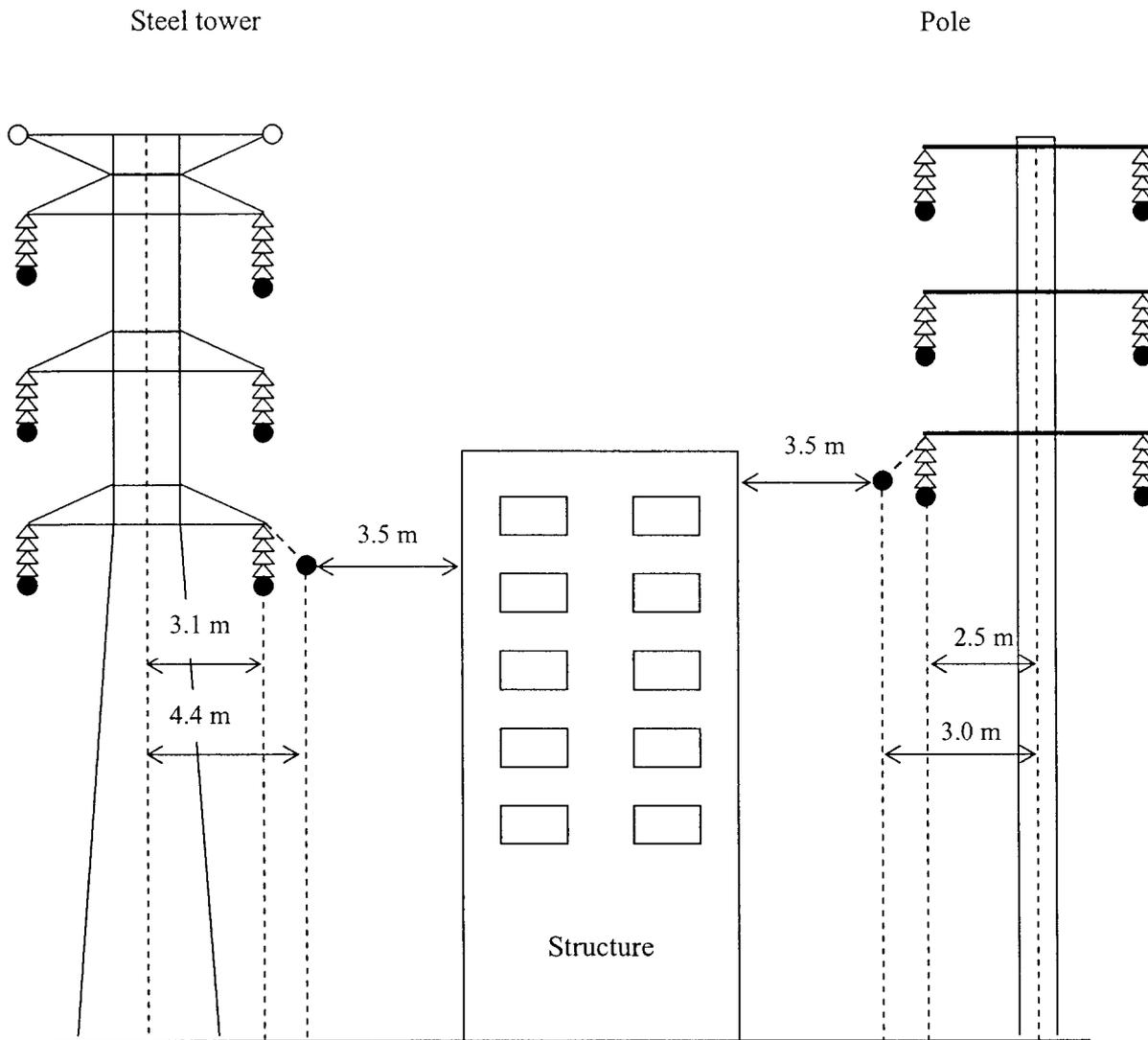


Figure 2.5: Resettlement clearance (R.O.W)
 [Source: Guidebook for power engineers (MIME) category 2.6.46]

2.8. CONDUCTOR SELECTION

In a transmission line construction, the conductor usually comprises 20% to 30% of the material and labor costs. The selection of conductors is critical since the wind and tension loads that supporting structures must withstand are dependent on the size and type of conductors used. Structure heights are also largely dependent on the conductors selected since

maximum sag of phase conductors under maximum ice or maximum temperature conditions is governed by certain physical, mechanical and dimensional properties of the conductor. Even environmental effects, such as radio noise and audible noise, are heavily influenced by the conductors themselves

2.9. SUBSTATION DESIGN

Transmission lines connected to other country's substations will be operated under the voltage of 115 kV, with double circuits. Three substations connected to the line will be constructed to supply sufficient power to each substation's demand.

The substations to be constructed are as follows:

- 115 kV Kraek substation
- 115 kV Suong substation
- 115 kV Kampong Cham substation
- 115 kV Stung Treng substation

Kraek substation receives power from Vietnam via double circuit 115 kV transmission lines and it is connected to the Suong substation and transfers power to the Suong substation that is connected to the Kampong Cham substation. In the case of the Stung Treng substation, it is interconnected to the substation in Laos with a double circuit 115 kV transmission line.

The design shall comply with Cambodia "Electric Power Technical Standards" and the guidebook for "Power Engineers" issued by the ministry of Industry, Mines and Energy (MIME) and other international standards. The design shall be suitable for operation in Cambodia weather. In the case of matters not stipulated in the technical standards, IEC or ISO standards will be applied.

2.10. PROJECT IMPLEMENTATION

2.10.1. Pre-Construction Activities

Pre-construction activities will involve the final design of the transmission structures and routes, geotechnical investigations, asset verification and acquisition, compensation and relocation measures.

A detail final design will be prepared for the transmission line, towers and substations. Final designs will include tower spacing and a range of foundation and tower types for different ground and flood conditions. A detailed survey of the route will be undertaken based on the previously surveyed route to finalize and peg the transmission line centerline, ROW and tower location.

Asset verification will be completed once the ROW has been pegged, for all privately owned land, buildings, trees and other non-transferable property within the ROW that will be affected by the construction or operation of the line or substations. This will be used to update

the existing asset database. The acquisition of land at tower sites, the relocation of buildings within the ROW and the payment of compensation for trees to be removed will be finalized prior to the start of construction at each related site.

2.10.2. Construction

Sections of the line will be constructed concurrently by multiple work teams to complete the line during this period. Construction will primarily occur during the dry season (November-May), when ground conditions are dry enough to allow heavy machinery access to tower sites for foundation construction and tower erection and to the substation sites for foundation preparation. The only construction that may occur during the wet season will be substation construction after the foundations have been prepared. Line stringing may also occur, although this may be limited by access to the line and thunderstorm activity.

The main transmission line construction activities will be vegetation clearance within the Clearance Width, tower foundation construction, tower erection and line stringing. Vegetation clearance will be undertaken by hand and kept to the minimum required to achieve necessary line clearance distances, restricted to the 30 m Clearance plus nearby large trees that could fall and damage the line. Vegetation less than 3 m high will not be cleared. Land mine or cluster bomb clearance will be required at least at one site along the Clearance prior to any construction in the vicinity.

Tower foundation will be constructed by in drilling each footing point with a mobile drilling unit, then concreting the excavated voids to form footing points. Alternatively, pre-fabricated concreting pile will be driven into the ground to form the foundation points, with the exposed sections of the piles tied together by concrete horizontal beams. On sites subject to deep flooding a concrete support structure will be constructed.

The substations will be constructed by removing and stockpiling topsoil from the area to be land filled, installing the earth mat and land filling to approximately 1 m above original ground level. Topsoil will then be spread over the fill batters and seeded. Construction of the substation facilities will then be undertaken.

2.10.3. Operation and Maintenance

Transmission line operation will generally involve limited maintenance activities. Line maintenance will usually be restricted to periodic, special and emergency inspections. Routine inspections and planned maintenance will be timed to occur during the dry season where possible, whereas emergency line reinstatement may have to occur during the wet season.

Patrolling of the line from the ground will be undertaken periodically before and after the monsoon. The patroller will inspect structure foundations, insulators, conductors, and jumpers, etc. Periodic hand pruning of vegetation within the ROW will be undertaken to maintain line clearance distances.

Special inspections will be undertaken after floods, severe winds, hail storms, earthquakes and fires. Emergency inspections of the affected section of line will be undertaken after each tripping of the line to ascertain the nature of the fault and carry out repairs. Failure of the line involving a wire break is highly unlikely, but it would require line restringing.



III. SOCIO-ECONOMIC CONDITION

The general social environment in the vicinity of the propose transmission line route is described below.

3.1. Administration

The 115 kV transmission line routes from Vietnam Border to Kampong Cham Crosses Tbong Kmum District and Pohnea Kraek District, 10 Communes, total route, 66 km, is located in Kampong Cham Province, while another 115 kV transmission line route from Laos Border to Stung Treng crosses Stung Treng District, 1 Commune, total route 56 km, is located in Stung Treng Province.

3.2. Population and Settlement Pattern

As shown in the Statistic Handbook 1995-2004 of Electricite Du Cambodge, we estimated one year after, Kampong Cham Province has a population of 1,893,138, Kampong Cham Town has a population of 53,366, Ponhea Kraek has a population of 145,763 and Tbong Kmum has a population of 252,722. Stung Treng Province has a population of 96,622, which Stung Treng Town has a population of 29,190, Strung Treng has a population of 14,040, and Samakey has a population of 4,356.

The settlement pattern in the rural areas crossed by the transmission line route is characterized by villages generally consisting between 200-250 households located on land marginally higher than the surrounding paddy fields, either on an isolated feature or along roadsides. Settlement occurs on these sites primarily due to the lower flood hazard and better road access in these respective locations. Single houses or groups of several houses also occur on small areas of higher land surrounded by paddies. Most settlement areas appear to be only 0.5-1.0 m higher than the surrounding fields.

Table 3.1: Affected Areas

Province	District	Commune	Affected Villages	Total House hold	Total Population	Total Female	Total Male
Kampong Cham	Thboug Khmum	Chub	Viel Krodieng	174	1023	538	485
			Chub Chambok	347	1778	910	868
			Slab Kdoung	492	2588	1312	1276
		Mongreav	Cheung Khal	210	1063	526	537
			Poun	174	828	430	398
		Suong	Suong Lech	680	3670	1745	1945
			Chrok Poun	185	786	397	389
		Srolab	Trapaing Ku	208	943	491	452

Ponhea Kraek	Kandal Chrum	Viel Khnach	117	644	359	285		
		Sberk Keu	202	806	432	374		
		Phsar Kandal Chrum	161	657	330	327		
		Kaung Kang	Kandal Kaung	104	423	172	251	
			Steng	192	971	271	700	
			Por Runglech	144	590	282	308	
			Por Srok	298	1458	729	729	
		Kraek	Kraek Thboung	396	1962	1026	936	
			Kraek Cheung	227	1055	544	511	
		Trapaing Plong	Trapaing Plong I	293	1425	730	695	
			Trapaing Plong II	647	2790	1420	1730	
			Thmey	213	998	280	718	
		Total		20 Villages	5,464	26,478	12,924	13,554

Source: Project Area Only

3.3. Land Use

Land use along the proposed route is primarily rural, with small areas of urban settlement and light industry occurring on the right side of the route from Kampong Cham to Vietnam Border (Figure 3.2a, 3.2b). The local farming system is dominated by rice cropping, with tree crops and gardens established on slightly raised areas around dwellings where the water logging or flood hazard is lower.

Each house hold approximately occupies the residential plot from 800 – 1000 m² and holds farmland around 2200- 4000m².

Around 36.73% of the route from the Vietnam Border to Kampong Cham pass through household, where on the other part from the Laos Border to Stung Treng, the majority of the route crosses forest (62.%), which will be cleared. The dominant crop is lowland rain fed (wet season) rice, transplanted from June-October and harvested from October-December. This crop is grown without irrigation, transplanted November-March and harvested February-May. Those areas are irrigated from water diverted out of the Preaek Chik, Boeng Krachap, Trapaing Boeng, Trapaing Tonsaong, Trapaing Plong, and small lakes. Dry season crop yields are higher than wet season yields due to controlled irrigation and additional sunlight.

Rice is grown as an opportunity crop on land that is significantly inundated during the wet season. Other field crops in Kampong Cham Province include mango, sweet potato, rubber tree, flower tree, banana tree, and palm tree, and in Stung Treng include Korkei tree, grown either in the wet or dry season.

Tree crops are mainly grown in house yards, with scattered trees grown in paddy fields. Trees are also grown on Government or community land such as watercourses and roadsides. The main tree crop is the rubber tree, which comprises around 27% of all plantation trees in villages from Vietnam Border to Kampong Cham. The rubber tree is an important tree crop in

Kampong Cham Province, traditionally providing significant income. Other tree crops include mangoes, bananas, coconut palms, jackfruit, papaya, cashew, milk fruit, sapodilla, orange, and bamboo. Tree products including fruit, sugar, wine, building materials and fuel wood are mainly grown along the route from Laos Border to Stung Treng.

Vegetables, cereals, herbs and spices are commonly grown in house gardens, including eggplant, cassava, sugar cane, beans, peanuts, chilly and lemongrass. Other farming activities include small scale livestock production (e.g. chicken, duck, pig and cattle raising), whilst fish, frogs and crabs are collected in paddy fields, drains and watercourses.

Grasslands, consisting of grasses and shrubs, are limited in extent, often occurring on slightly higher land that has not been settled. These areas probably were established voluntarily during an extended fallow period, on these lower quality rain fed paddy fields.

Domestic water is collected from roofs and drawn from private wells, private or communal ponds and public watercourses, and usually stored in large clay or masonry jars at each house. Stock water is mainly derived from watercourses and private and communal ponds.

Table 3.2a: Land Use along the Transmission Line Clearance (Vietnam Border-Kampong Cham)

Land Class	Distance (km)	Clearance Area (ha)	% of Route
Paddy	16.34	49.02	24.68%
Houses / tree crops / gardens	24.31	72.93	36.73%
Plantation trees	22.88	68.64	34.57%
Grassland	2.15	6.45	3.24%
Reverie features / main canals	0.13	0.39	0.19%
Main roads and rail	0.39	1.17	0.59%
Total	66.20	198.60	100%

Source: Project Area Only

Table 3.2b: Land Use along the Transmission Line Clearance (Laos Border-Stung Treng)

Land Class	Distance (km)	Clearance Area (ha)	% of Route
Paddy	9	27	15.76%
Houses / tree crops / gardens	x	x	x
Plantation Trees	10	30	18.00%

Forest trees	35	105	62.00 %
Grassland	x	x	x
Reverie features / main canals	1.2	3.6	2.12%
Main roads and rail	1.2	3.6	2.12%
Total	56.40	169.2	100%

Source: Project Area Only

3.4. Land Tenure

All land belongs to the State under the Land Law 1992, but private property rights regarding possession, use of land and rights of inheritance are recognized by this Law. Under the National Constitution of 1993, the right of private land ownership is recognized and land expropriation is prohibited, except in the national interest and with payment of fair and just compensation.

Few people hold legal land titles in Cambodia, however land tenure is largely recognized by occupation and recognition by ones neighbors. Boundaries are clearly defined in paddy areas where each field is demarcated by an earth bund, whilst residential land in villages is often fenced.

The Certificate of Possession and Use of Land is a form of title, issued by the Department of Cadastre and Geography within the Ministry of Land Management, Urban Affairs and Planning (formerly the Land Titles Department). A Certificate is obtained by a landholder by submitting an Application for Possession and Use of Land to the provincial office of the Department of Cadastre and Geography. The applicant receives a Receipt for the application, then a slow process of issue is commenced that may involve a dispute over ownership where more than one receipt has been issued for the same piece of land. The Receipt is used as evidence of ownership and is passed on when land is sold or ownership otherwise transferred.

Very few landholders in the project area hold any form of land title, with the majority having lodged an Application for Possession and Use of Land. Most landholders obtained their land from distribution by authorities that commenced in 1989. The remaining landholdings were either bought or inherited.

3.5. Local Economy and Household Characteristics

The local economy along the length of the ROW is characterized by rural production and the provision of basic goods and services. The most common primary occupation is farming (38% of AP respondents), with rice providing the main source of income. Other occupations and income sources reported in the survey included: small business seller, driver, worker, officials.

Reported annual household incomes ranged from \$13 to \$2,737, with a median income of \$183 and an average of \$249 (*Preliminary Social Economic Survey* results).

The head of the household was identified as the "father/husband" by between 81-91% of respondents in the various household surveys, with the remaining 9-19% identifying the "mother/wife" (not necessarily single, widowed, or divorced).

Household heads were reported as having a median age of 44 years in the Preliminary Socio-economic Survey, and median level of education of seven years. The spouses of the household heads were reported as having a median age of 41 years, and median level of education of four years.

The head of severely affected APs have a level of education above that of the general population from data compiled for the 10 communes along the ROW (Vietnam Border to Kampong Cham) and 1 commune along the ROW (Laos Border to Stung Treng), with almost 14% is illiteracy while 34% is literacy compared to total population in the affected village. These figures not include the kids beyond 6 years old and the people older than 55 years old.

Table 3.3: Percentage of Educated People Affected by the Project

Province	District	Commune	Affected Villages (Adult)	Illiteracy	Literacy
Kampong Cham	Tboung Kmum	Chiro 2	Tuol Vihea	251	1230
			Sre Siem	336	1120
			Andoung Chea	190	754
			Mream Teak	174	802
		Chub	Slab Kdoung	176	709
			Viel Krodieng	53	180
			Chubkroa	65	166
			Chub Chambok	51	500
		Mongreav	Cheung Khal	N/A	N/A
			Poun	10	183
		Suong	Cheoung Long	N/A	N/A
			Suong Lech	N/A	N/A
		Agncherm	Ponareay	N/A	N/A
			Dang Kambet	371	252
		Srolab	Damnak Char	63	117
			Trapaing Ku	0	240
	Viel Knach		34	146	
	Brotheat		79	91	
	Ponhea Krek	Kandal Chrum	Bat Tonlea	92	286
			Sberk Keu	59	87
			Phsar Kandal Chrum	0	92
			Toul Por	41	166
		Kaung Kang	Steng	37	181
			Por Rungleu	129	183
			Por Runglech	81	149
			Kandal Kaung	52	105

			Por Srok	65	412
		Krek	Krek Tboung	529	1527
			Chiman Kandal	182	1718
			Chiman Lech	124	873
			Huoch Lech	77	389
			Huoch Kert	493	616
			Toul Angrong	248	495
			Neay Noy	297	262
			Andoung Chey	296	447
		Trapaing Plong	Trapaing Plong 1	880	537
			Trapaing Plong 2	343	711
			Preah Phdau	430	280
			Tmey	47	236
			Trapaing Pring 1	61	283
			Trapaing Pring 2	419	348
			Tnal Keng	20	108
Stung Treng	Stung Treng	Samakey	Haing Korsuon	350	660
			Haing Korban	230	440
			Tmey	245	440
			Koh Korden	190	474
			Kamphann	126	349
			Kilo Brambey	70	120
Total			49 Villages	8066=14%	19464=34%

Source: Project Area Only

3.6. Energy Use and Electricity Supply

Biomass is the main source of energy in the rural areas along the transmission line route, dominated by the burning of fuel wood, charcoal and agricultural residues. These rural areas have no main electricity supply, however many households consume a small amount of electricity derived from batteries. Rural villages are serviced by small independent power generators that operate battery recharging businesses. Households use 12 V batteries for running a house light or television, whilst smaller batteries are used for hunting and other purposes.

Kampong Cham Town is served by a local generation and distribution system managed by the EdC. This consists of diesel generation and a distribution.

3.7. Transportation and Communications

Road transport in the project area primarily occurs via National Route 7 (NR7) and Route Number 72, the main arterial route in the area, which runs from the Vietnam border to Province and another section from Laos Border to Stung Treng. The section of NR 7 from Kampong Cham to the Vietnam Border is in good condition and from Stung Treng to the Laos Border is under construction.

Local telecommunications are limited in rural areas along the transmission line route. Kampong Cham town is serviced by telephone landlines, but Stung Treng town and rural villages do not generally have telephones.

IV. PROJECT IMPACTS AND MITIGATION MEASURES

4.1. IMPACTS

4.1.1. LAND ACQUISITION AND LAND USE CHANGE

Table 4.1: Estimated Land Acquisition

Transmission Line Component	Land area	Total Area
115 kV Pole	0.27	0.67
115 kV Tower	0.40	
Kraek Substation	0.49	1.82
Suong Substation	0.49	
Kampong Cham Substation	0.49	
Stung Treng Substation	0.35	
Road to Substations	0.06	0.06
Total	2.55	

Source: Affected Area Only

Tai Ninh (Vietnam) to Kampong Cham (Cambodia)

Land acquisition is required to establish the transmission line towers and poles and the substation. Land acquisition for the poles for the 115kV transmission line from Vietnam Border to Kampong Cham, which will depend on the final design, will be 0.27 ha (2x2 m), whilst land to be acquired at the three substation sites in Kampong Cham Province (70m x 70m) will totally be 1.47 ha, with additional 0.045 for the access road to the substations.

Ban Hat in Champasak Province (Loas) to Stung Treng (Cambodia)

Land acquisition for the estimated tower sites for the 115 kV transmission line from Laos Border to Stung Treng will be 0.40 ha (25m²), (4m square tower base plus 1 m), while substation site in Stung Treng Province will be 0.35 ha, with an additional 0.015 ha required for the access roads leading to the substation. Accordingly, total land acquisition is estimated to be 2.55 ha, to be confirmed during the final design.

Very little land uses change will occur on the 0.40 ha of 115 kV tower sites as cropping will be permitted beneath the lattice towers, while 115 kV poles will take up on 0.27 ha.

Most of the 2.55 ha required for the project is private land. All landowners who will have land

acquired for towers or poles will only have a single acquired site. Land acquired in paddy fields for a 115 kV tower form an average "small" landholding. Land acquired for a tower on a house block is likely to make up a more significant proportion of this household land type.

Substation Site(see Appendix)

Unlike the transmission line ROW, the land acquisition for the Sub-Stations can be considered to have a serious affect on the APs involved, as the land take involves a considerable proportion of their agricultural land holdings, though unlike the transmission line no structures will be affected. Altogether **1.88 ha** of land will be acquired from **19 PAPs(exclusive of Stung Sterng)**, plus an additional **0.06 ha** for access roads to those substations, taking a possible one third of median landholdings. Both areas appear rural but are actually peri-urban, and therefore location factors may need to be considered in determination of compensation rates, in addition to land productivity.

This will require an average of 3-4 m² fill at those sites,assuming 1 m depth, that will amounting to total fill volumes of 18,200 m³ (1m x 1.82 ha), fill is required to construct the Suong, Kraek, Kampong Cham and Stung Treng substation. An earth mat will be laid out at each substation, then backfilled, Earth fill may be taken from pond development sites for local households or communities but will probably require payment by the contractors preparing the facility foundations.

Kraek Substation: the Kraek substation will require 0.49 ha of what is currently paddy land (no houses). The Kraek substation will permanently acquire land from 7 APs, in Chimanlech village, within Kraek Commune, under Pohnear Kraek District, Kampong Cham Province. The area of rice land reported among APs surveyed in the Socio-Economic Survey ranged from 1500 m² to 3510 m² (0.15ha to 0.35 ha), with a median of 0.5 ha per land-owning family, so this could take about 50% of an individual AP's rice land holdings.

Suong Substation: the Suong substation will require 0.49 ha of what is currently paddy land (no houses). The Suong substation will permanently acquire land from 10 APs, in Cheung Land and Beoung Snor villages, within Suong Commune, under Tbong Khmum District, Kampong Cham Province. The area of rice land reported among APs surveyed in the Socio-Economic Survey ranged from 2000 m² to 3000 m² (0.20ha to 0.30 ha), with a median of 0.5 ha per land-owning family, so this could take about 50% of an individual AP's rice land holdings.

Kampong Cham Substation: the Kampong Cham substation will require 0.49 ha of what is currently residential land (5 houses). The Kampong Cham substation will permanently acquire land from 2 APs, in Wat Kmuong villages, within Chiro 2 Commune, under Tbong Khmum District, Kampong Cham Province. The area of rice land reported among APs surveyed in the Socio-Economic Survey ranged from 2200 m² to 4000 m² (0.22ha to 0.40 ha), with a median of 0.5 ha per land-owning family, so this could take about 62% of an individual AP's rice land holdings.

Stung Treng Substation: (To be determented in this week)the Stung Treng

substation will require 0.35 ha of what is currently paddy land (no houses). The Stung Treng substation will permanently acquire land from 10 APs, in Cheung Land and Beoung Snor villages, within Samakey Commune, under Tbong Khmum District, Stung Treng Province. The area of rice land reported among APs surveyed in the Socio-Economic Survey ranged from 2000 m² to 3000 m² (0.20ha to 0.30 ha), with a median of 0.5 ha per land-owning family, so this could take about 50% of an individual AP's rice land holdings.

Table 4.2. Substation Land Acquisition(Including access road)

Sub-Station	Land Acquisition (ha)	PAPs	PAPs Percentage
Kraek	0.5063	7	
Suong	0.5063	10	
Kampong Cham	0.5062	2	
Stung Treng	0.3612	--	
Total	1.88	--	

Source: Affected Area

Mitigation Measures

- Fair compensation will be paid for acquired land based on current market rates, taking into account land capability.
- Owners of land acquired for 115 kV towers will be permitted to grow cereal crops under the towers.

4.1.2. BUILDING REPLACEMENT AND HOUSEHOLD RELOCATION

Table 4.3: Affected Area

Province	District	Commune	Affected Villages	Total House hold	Total Population	Total Affected Population	Total Affected Small Business Shop
Kampong Cham	Thboung Khmum	Chub	Viel Krodieng	174	1023	3	3
			Chub Chambok	347	1778	6	6
			Slab Kdoug	492	2588	7	7
	Thboung Khmum	Mongrea v	Cheung Khal	210	1063	5	5
			Poun	174	828	4	4
	Thboung Khmum	Suong	Suong Lech	680	3690	6	6
			Chrok Poun	185	786	8	8
	Thboung Khmum	Srolab	Trapaing Ku	208	943	5	5
			Viel Khnach	117	644	3	3
	Ponhea	Kandal	Sberk Keu	202	806	5	5

	Kraek	Chrum	Phsar Kandal Chrum	161	657	6	6		
			Kaung Kang	Kandal Kaung	104	423	4	4	
		Steng		192	971	5	5		
		Por Runglech		144	590	3	3		
		Por Srok		298	1458	4	4		
		Kraek		Kraek Thboung	396	1962	5	5	
			Kraek Cheung	227	1055	6	6		
		Trapaing Plong	Trapaing Plong I	293	1425	3	3		
			Trapaing Plong II	647	2790	4	4		
			Thmey	213	998	2	2		
		Total			20 Villages	5464	26478	94	94

Source: Project Area Only

The Transmission Line ROW has been located to avoid settlement. 94 small business shops, with an average size of (4m x 4m), then the total for land acquire from this shop will be 1504 m², will be a little affected and will require moving 2 or 3 meters backward. The owners of the shop are affected village population, totally 94 people will be affected. Since the 94 small business shops are located on the roadside, state property, only compensation for land use, loss of income, rebuilding cost will be paid to the affected owners, that was include in the lump-sum amount of \$900 for each shop.

Mitigation Measures

- Compensate the cost for rebuild the small business shops.

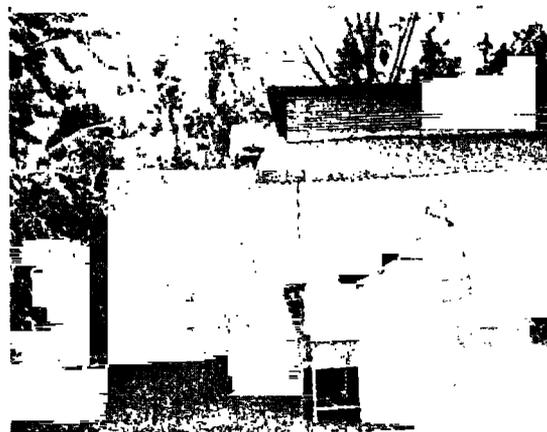




Figure 4.1. Affected Business shop

4.1.3. LOSS OF TREE RESOURCES

Table 4.4: Estimated Trees to be removed from The Clearance

Area	Name of Trees	Number of Trees	Percentage
Vietnam Border -Kampong Cham	Coconut	1684	34.04%
	Slar Tree	1625	32.84%
	Palm Tree	424	8.57%
	Mango	1214	24.55%
	Total 1	4,947	100%
Laos Border – Stung Treng	Kokie	90	6.74%
	Yieng	20	1.49%
	Sdoa	14	1.04%
	Bamboo	81	6.05%
	Palm Tree	45	3.37%
	Mango	105	7.86%
	Coconut	32	2.39%
	Kor	7	0.52%
	Putrea	7	0.53%
	Banana	50	3.74%
	Por	1	0.08%
	Tamarine Tree	16	1.19%
	Sugar Can	10	0.71%
	Jack Tree	10	0.71%
	Forest Tree	849	63.58%
Total 2	1,337	100%	
Total		6,284	100%

Source: Affected Villages Only

Private and communal trees and plants above 3 m height within the 30 m wide Clearance will be either removed or pruned to provide the necessary conductor clearance distance. This will

involve the removal of classes as having economic value, as recorded in the asset survey. Trees up to 3 m in height will be permitted within the ROW, such as banana palms.

In addition, large trees within 30 m of the base of towers and poles will be selectively removed or pruned to reduce the height of trees that have the potential of falling and striking these structures. Tree removal or pruning will also be undertaken immediately outside the ROW to prevent trees from falling and striking the lowest conductor (as low as 8 m above ground level).

Tree removal and pruning will mainly occur in settlement areas, where the majority of trees occur. Trees in the Clearance from Vietnam border to Kampong Cham will be cleared or pruned on 34.57 % (Table 3.2a) of "Plantation Trees" and tree in the clearance from Laos border to Stung Treng will be clear on 18% (Table 3.2b) of "Plantation Trees" and 62% of "Forest trees", which will be cleared. Scattered trees such as sugar palms and coconut palms that are grown on paddy land, canal embankments, riverbanks and roadsides comprise the remaining trees to be removed or pruned.

A large number of replacement trees will be grown by households outside the ROW to offset lost production, therefore the long-term loss of trees will be less than the number of tree removed.

Mitigation Measures

- Trees that can survive pruning to less than 3 m height will be pruned to provide the required line clearance distances, not cleared.
- Vegetation to be cleared will be marked prior to clearance to ensure that minimal clearance occurs. Trees that have mature heights in excess of the required clearances will be clearly marked, and only these trees will be felled or trimmed to meet the clearance requirements.
- Felled trees and other cleared or pruned vegetation (wood, branches and foliage) will be made available/retained by the owner of that vegetation for his/her use, or will be removed if requested by the owner.
- Compensation for removed or pruned trees will be paid at fair market value based on tree type and age.

4.1.4. LAND USE RESTRICTIONS

Land use restrictions will be placed on all land within the ROW. Vegetation will be restricted to a 3 m height, whilst no structures will be permitted to be constructed within the easement. On rural land, this will reduce the agricultural capability of land by denying the growing of most trees in the ROW. On urban or industrial land, land use capability will be reduced by prohibiting structures.

Immediately outside the ROW tree height restrictions will also be applied, as indicated in Figure 2.4. Cereal cropping within the ROW will be permitted as this vegetation is less than 1 m high, whilst garden crops will also be unaffected as they are generally less than 3 m high (e.g. cassava grows to around 3 m).

Mitigation Measures

- A one-off compensation payment may be paid to affected landowners to offset the devaluation of land within the ROW due to reduced land capability. This payment based on government policies the \$ 0.50 rate will be applied for all the land used within the ROW, that will be considered in the Resettlement Plan. No compensation will be paid for vegetation height restrictions applied to land adjoining the ROW.

4.1.5. TEMPORARY IMPACTS DURING CONSTRUCTION

4.1.5.1. Crop and Land Disturbance

Disruption of farming activities and the disturbance of crops, bunds, canals and drains will occur during construction and some line maintenance activities where machinery access has to be gained and no permanent roads exist. Crop disturbance during construction will result from the establishment of a temporary 3-4 m wide access way to each tower site, the construction of each tower site and conductor stringing. Short sections of paddy bunds and drain/canal embankments will be temporarily removed and drains/ canals may be temporarily tilled to establish access, to be reinstated by the contractor once construction has been completed.

Major maintenance activities are likely to have a similar impact, but only at specific sites. Essential maintenance activities will mainly only disturb crops between July-December when wetland rice is grown on approximately 40 % of the ROW. Therefore, total likely crop disturbance during this period would be small.

Spoil will be created from the excavation of tower footings. Approximately 3-4 m² of fill will be excavated to establish voids for poured concrete foundations for each 115 kV tower constructed in this manner. In addition, approximately 18,200m³ (1m x 1.82 ha), (100m x 100m = 1 ha) of fill is required to construct the Suong, Kraek, Kampong Cham and Stung Treng substation foundations, assuming a 1 m depth of fill. Land disturbance may also occur at each temporary concrete batching plant site, with approximately 4,550 m³ (18.200 / 4 Substations) of land required at each substation.

Approximately, 3 ha of land for each transmission line will be temporary affected by the project, with the preference of paddy field, due to the low price than any other types, compensation for all losses and rental will be the contractor's responsibility, which will be consider in term of the land capability, and current market rate at the time of the construction.

Mitigation Measures

- The selection of construction techniques and machinery will consider minimization of ground disturbance.
- Construction activities on cropping land will be timed to avoid disturbance of field crops within one month of harvest wherever possible.
- Established roads and tracks will be used for construction and maintenance access to the line wherever possible.
- Where access is required off existing roads and tracks, access will be restricted to a single carriageway width within the ROW unless more direct and lower impact access can be gained.
- The temporary placement of fill in drains/canals will not be permitted where impeded drainage could cause flooding or damage.
- Fill temporarily placed in drains/canals will be removed, whilst excavated drain/canal embankments will be reinstated, immediately following the required access.
- Compensation for lost production will be paid for crops disturbed prior to harvest based on area of disturbed crop, market price and agreed yield
- Spoil excavated from tower footings will be disposed of by placement along roadsides, or at nearby house blocks if requested by landowners, to improve these features.
- Winning of fill for the substation foundations by creating or improving local ponds or drains, undertaken with the agreement of local communities.
- Temporary concrete batching plants will be located on disturbed sites or areas of low production potential (e.g. grassland) where possible.

4.1.5.2. Damage to Field Crops, Bund Walls, Communal Property, Temporary Relocation, Business Loss, Occupation of Storage Areas

Temporary damages can be multiple for instance damage to fields, bund walls (highly localized and small), communal property, temporary relocation, business loss, and occupation of storage areas and will be the financial responsibility, as per contract agreement, of the contractor(s).

This is important to provide incentive to contractor to keep this damage as minimal as possible. Similarly, compensation for on-going impacts during maintenance activity is not included in the RP, as this is outside the scope of the project implementation. Cost of ongoing maintenance is expected to be small, consisting of possible damage to crops and ground while accessing the line. As with the construction phase, this will be built into the Maintenance Contract by requiring the contractor to make good any damage caused.

Although paying for temporary damage and financial (business) losses and replacing communal and other infrastructure is the responsibility of the contractor(s), damage to fields, bund walls, etc has been estimated for reference, but not for inclusion in the RP budget. The estimation was based on the farm labor rate for manual earthworks of 3,500R/m³, which converts to the same amount per linear meter for bund walls of 1m height and 1depth, or approximately US\$30 for a bund wall across the 30m width along the ROW.

The contractor's responsibility tries not including damage to the growing area of the field itself as it is assumed that the ploughing normally done each year by the farmer will address this. The contractor will carry out repairs to other infrastructure. These provisions will be built into the contract requirements.

Mitigation Measures

- Bunds, canals or other features disturbed during construction will be reinstated by the contractor as soon as activities at each site have been completed.
- Construction activities on cropping land will be timed to avoid the disturbance of field crops within one month prior to harvest wherever possible.
- Creating or improving local ponds or drains to win fill material for substation foundations, undertaken with the agreement of local communities.
- Marker balls or similar will be considered in final design at key locations to improve the visibility of conductors and thereby lower the aviation hazard.
- Construction activities involving significant ground disturbance (i.e. substation land forming) will not be undertaken during the monsoon season.
- Substation embankments and other sites with an erosion hazard will be top soiled and re-vegetated immediately following site construction.
- Construction activities will only be undertaken during the day and local communities will be informed of the construction schedule in advance.
- Temporary concrete batching plants will be located away from residences where possible.

Measures will also be sought to maximize project benefits to the communities in the project

area, such as through facilitating local employment and training in construction. This is outside the scope of this RAP but effort should be made in association with the design and construction.

4.2. INCOME RESTORATION STRATEGY

4.2.1. Sub-Station Land

Severely Affected Persons (SAPs) are identified as the **19 APs** losing land to the four substations, Kraek substation (7 APs losing 0.49 ha paddy land), Suong substation (10 APs losing 0.49 ha of paddy land), Kampong Cham substation (2 APs losing 0.49 ha of residential land) and Stung Treng substation (12 APs losing 0.35 ha rice land). Sub-Station land acquisition will be fully compensated and allowances given for income losses (see Entitlement Matrix, Table 5.2). Severely affected farmers (losing 20% or more of total productive landholding) will be entitled to other rehabilitation assistance, including advice and technical assistance to improve productivity on remaining land or to develop alternative livelihoods.

4.2.2. Structure Relocation

94 small business shops are required relocating their structures from the 115 kV transmission line ROW. As with land acquisition for substations, all land acquisition along the transmission line ROW will be fully compensated and allowances given for income losses (see Entitlement Matrix, Table 5-2).

4.2.3. Trees

The requirement of moving trees from the transmission line ROW may be the largest direct income loss for individual PAPs. However, it is very difficult at this stage to assess the income loss, either more broadly or for an individual PAP. This can be done once the line are “pegged out” upon finalization of the design and the carrying out of the Detailed Measurement Survey (DMS) that will update and finalize in the information about PAPs and the specific Project impacts.

4.2.4. Temporary Disturbance

In addition to the income losses from permanent land acquisition, there will be income losses from temporary disturbances during implementation. Most of these will be compensated for by the Project, such as crop losses due to construction activities, and by the contractors, as according to contract provisions, where the impacts are directly caused by their activities. It is important for the contractors to take this responsibility so that they will have ample incentive to keep such impacts at a minimum.

V. LEGAL AND POLICY FRAME WORK

5.1. RESETTLEMENT OBJECTIVES AND PRINCIPLES

The Project's resettlement and compensation are to be in accordance with World Bank requirement and Cambodian law. The World Bank has advised that it is a condition of funding that the Bank's requirements are met in relation to resettlement and compensation.

The objectives and principle for resettlement and compensation to be adopted to implement the Bank's policies for the project are as follows:

(a) Resettlement Objectives:

The Resettlement Action Plan aims to ensure that the losses incurred by affected people are redressed such that Affected Persons shares project benefits, are assisted to develop their social and economic 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.

(b) Resettlement Principles:

- Acquisition of land and others assets and resettlement of people will be minimized as much as possible by identifying possible alternative project designs, and appropriate social, economic, operational and engineering solutions that have the least impact on populations in the Project area.
- The populations affected by the Project are defined as those who may stand to lose; as a consequence of the Project, all or part of physical and non-physical assets, including homes, homesteads, productive lands, commercial properties, tenancy, income-earning opportunities, social and cultural activities and relationships, and other losses that may be identified during the process of resettlement planning.
- All APs who will be identified in the project impacted areas as of the date of the updated census and inventory of losses, will be entitled to be compensated for their lost assets, incomes and businesses and full replacement cost and provided with sufficient rehabilitation measures or assistance to at least maintain their pre-project living standards, income earning capacity and production levels.
- All affected populations will be equally eligible for compensation and rehabilitation assistance, irrespective of tenure status, social or economic standing, and any such factors that may discriminate against achieving the objectives outlined above.
- The rehabilitation measure to be provided are: (i) cash compensation for houses and other structures at replacement cost of materials and labor without deduction for depreciation or salvageable materials;(ii) full title to replace agricultural land for land of equal productive capacity acceptable to the AP; full title to replace residential and commercial land for equal sizes acceptable to the AP; or, at the informed decision of the

AP, cash for replacement land at replacement cost at current market value;(iv) cash compensation for crops and trees at current market value; and (v) relocation allowances and rehabilitation assistance.

- There will be no deduction in payment for salvage value, depreciation, taxes stamp duty, fees, or any other payments
- Sufficient time will be allowed for replacement structure to be built before construction.
- Temporarily affected land and communal infrastructure will be restored to pre-project conditions.
- The compensation and resettlement activities will be satisfactorily completed and rehabilitation measures in place and all encumbrances removed on a contract area before the Government and World Bank will approve commencement of civil works for that contract area.
- The EA will see that institutional arrangements are in place to ensure effective and timely design, planning, consultation and implementation of the land acquisition, compensation, and resettlement rehabilitation program.
- Existing cultural and religious practices shall be respected and, to the maximum extent practical, preserved.
- Adequate budgetary support will be fully committed and be made available to cover the costs of land acquisition and resettlement and rehabilitation within the agreed implementation period.
- Special measures shall be incorporated in the RP and complementary mitigation and enhancement activities to protect socially and economically vulnerable groups such as, women-headed families, children and elderly people without support structures and people living in extreme poverty.
- Grievance procedures shall be established and APs placed in project and commune offices for the reference of affected people as well as any interested groups.
- Appropriate reporting, monitoring and evaluation mechanisms will be identified and set in place as part of the resettlement management system and an external monitor hired before commencement of any resettlement activities.

5.2. LEGAL AND POLICY FRAMEWORK

There is no specific government policy relating to the details of resettlement and compensation in Cambodia, other than general requirements for compensation to be provided. A Policy has been developed for the project taking in account relevant Cambodian, World Bank laws and policies. This section describes the legal and policy background to the Policy.

5.3. CAMBODIAN LAW AND POLICY

Cambodian law relating to resettlement and compensation includes:

- Constitution
- Land Law
- Electricity Law
- Decrees and sub-decrees

5.3.1. National Constitution

The national constitution of 1993 prohibits land expropriation, except in the nation interest and with payment of fair and just compensation.

5.3.2 Land Law

Cambodia has experienced severe social, economic and political disruption during the past 20 years. In 1975, all private property was abolished and all records were destroyed. After 1979 when people began to return to the urban areas and due to the lack of defined property rights, began occupying vacant land and structures, a system based on usufruct rights was established. In rural areas, the Government assisted groups of families to form unites based on the collective ownership of land and assets with a village head. Land was distributed according to fertility.

Private possession and use rights to land are recognized in the 1993 Constitution and were also recognized in the Land Law 1992, with provision for land acquisition by Government with fair compensation in advance when required in the national interest. Although there is a process for obtaining a formal land title, progress has been slow with very few titles being issued.

The current legislation governing land ownership is the Land Law, August 2001. This new Land Law has replaced the former Land Law, enacted October 1992. The new Act contains some provisions that are relevant in relation to a current national resettlement policy that is presently in the process of formulation.

Article 5: "No person shall be deprived of their ownership unless this action is for the public interest consistent with formalities and procedures provided by laws and regulations, and after just and fair compensation is provided."

Article 6: "...All transfers or changes of rights ownership shall be made under the rules of general procedures of sale, succession, exchange, or donation, or by the court decision."

Article 19: "Any person having titles or real situation under the influence of Article 19 of this law cannot claim any compensation or cost for maintenance or development made under immovable property which is illegally possessed. Any illegal and intentional or deceitful acquisition of the public domain of the State or public legal entity shall be punished as provided in Article 259 of this law. For possession of public domain that damages or delays work in favor of the common interest, especially the possession of land necessarily reserved for maintaining roads,

the penalty shall be double. In all cases where the offender does not cease possession within the period of time determined by the competent authority, the authority can proceed to evict that offender."

Article 259: "infringement upon the public domain shall be punished with a fine from 5,000,000 Riel (five million Riels) to 50,000,000 Riels (fifty million Riels) [between US\$1,250 and US\$12,500] and/or imprisonment from one (a) to five (5) years. The perpetrator has an obligation to immediately vacate such a public domain. The perpetrator has no right to any indemnity for works or improvement made on such public property. In the event that the current occupant of public property prior to this law taking effect has documents as proof and a certificate that states she/he purchased it from a person, [the occupant] may report to competent authority to enforce legal measures on such a person who sold public property illegally and for his/her own interest [and the occupant is] injured by such an act. In any event, such injured party has no right to possess the public property"

Ministry of Economy and Finance Prakas No. 961 (April 6, 2000): An Order declares that, in order to implement Proclamation No. 6 (below), the RGC will not spend the national budget to make payment for structures or other items located on the RGC claimed right of way.

Royal Government of Cambodia's Proclamation No. 6 (September 27, 1999): an Order by RGC entitled "Measures to Crack Down on Anarchic Land Grabbing and Encroachment." prohibits private ownership on State lands. In particular, it required a cessation to encroachment on public and private properties as well as State lands, including public gardens, reserved lands for roads and rail sites. This order directs the municipal provincial authority, and the Royal Cambodian Armed Forces, National Police and Military Policy, and all relevant ministries and institutions, to participate in solving problem of anarchic land grabbing and encroachments.

It is noted that under this new Land Law, those who have illegally occupied a right of way or public properties are not entitled to any compensation or social support, regardless of their being an AP or member of a vulnerable group. This is also in accordance with Decision No 961 (above, where the RGC inform that it will not make payments for structures or assets on a right of way. Moreover, under the new Land law, person having assets on a right of way to be punished more heavily if a failure to relocate results in delays of works of public interest. Thus, this provision is in direct contrast to World Bank's Involuntary Resettlement policies being implemented in Cambodia.

This has been a serious issue with regards to multilateral agency-financed road projects in Cambodia but is not likely to be a serious consideration for the transmission line ROW, which by in large does not follow within a, as yet, State-owned ROW or cross substantial areas of public property.

While the individual's rights to ownership and compensation are protected in the new Land Law, there is now a clearly defined mechanism for land acquisition and amounts of compensation. The national-level Ad-Hoc Committee on Resettlement determines

entitlements, land values and appropriate compensations. Under these circumstances, individuals have no right of appeal and are obliged to sell their assets at the values determined by the Government. As of December 2002, legislation governing the expropriation of land was expected to go before the parliament. This will set up the processes to be followed and give guidelines for compensation.

5.3.3. Electricity Law

The *Electricity law* of January 2001 covers right easement in Article 55:

- A licensee may lay, put in position, construct, or install, under or over any land, such electrical facilities and equipment that are necessary to satisfy its electric power supply services responsibilities under this Law.
- The licensee shall take reasonable commercial efforts to acquire necessary rights of entry, rights of way, and/or easements through negotiations with the owners of the lands and by paying appropriate compensation.
- In the event a licensee is unable to obtain such rights through reasonable commercial efforts, and the need arises to acquire easement compulsorily, the Authority, upon request by the licensee, may certify the acquisition to be in the public interest, to enable the relevant authority of the Government to proceed with the compulsory acquisition of the easement or land for the Licensee.

5.3.4. Decrees

Prime Minister's Edict, 27 September 1999, Measures to Eliminate Anarchical Land Grabbing, declares public land on the verge of roads and railways that must not be occupied, as follows:

- National Road 2, 3, 6 and 7: 25m from centre-line
- National Road 1, 4, 5: 30m from centre-line
- National Road 11, 22, 64, 78: 25m from centre-line
- Commune roads: 15m from centre-line
- Not applicable in towns
- Railways 20m from centre-line in urban areas, 30m in rural areas, 100m where there is threat of avalanche or in old growth forest.

Thus the edict does not recognize private ownership in these zones adjacent to roads and railways. However the World Bank requires that any people relocated from such areas for the Project shall be eligible for compensation.

The World Bank's Policy, in Op 4.12, Para 15/16, that "Displaced persons who have no recognizable legal right or claim to the land they are occupying are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary to achieve the objectives of the 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."

5.4. WORLD BANK POLICY AND DIRECTIVE

World Bank requires that land acquisition and resettlement be minimized as much as possible, and that compensation/resettlement be carried out so as to maintain or improve standards of living of project- affected people.

World Bank policies in relation to resettlement and compensation are set out in World Bank Operational Policy (O.P.) 4.12: Involuntary Resettlement, attached as appendices to this report. The objective of the Banks' policies is that the displaced population should receive benefits from the project. The Banks' policy objectives are summarized as follows:

- Involuntary resettlement should be minimized
- Resettlement plans should be developed
- Community participation in planning and implementing resettlement should be encouraged
- Resettlers should be integrated into host communities
- Affected people should be compensated and assisted in rehabilitation, to ensure they are no worse off than before.

Other World Bank policies and directives related to resettlement and social impacts are as follows:

- OD4.20 Indigenous Peoples

No action is required under Operational Directive 4.20 as none of the people interviewed in the APs inventory identified themselves as belonging to any preparation the social assessment or the indigenous or other ethnic minority.

- OP4.11 Cultural Property

No action is required under Operational Policy 4.11 as the sitting of the project has been such as to avoid cultural property such as temples and graves.

5.5. CONSISTENCY BETWEEN CAMBODIAN LAW AND BANK POLICY

At present there is no resettlement policy in Cambodia. As a result, the RP is guided by the World Bank's policies on Involuntary Resettlement (see Appendix C).

Table 6-1 compares RGC policy with World Bank.

Cambodian law requires that land can only be compulsorily acquired where it is in the national interest and that in such case fair compensation must be paid in advance. This is consistent with the Bank's policies, which go beyond this and have further more specific requirements. Although Cambodian law does not recognize private ownership in certain cases, such as in existing ROW, this does in any case not prevent compensation being provided to meet with the Banks' policies, through other means than direct compensation under the law.

Table 5.1: Summary of Comparison between the Laws of Cambodia and Bank's Policy

Resettlement Policy, Land Law and Legislation in Cambodia	Bank's Policies on involuntary resettlement
At present there is no resettlement policy. However, some provision in the new Land Law is relevant.	Involuntary Resettlement Policy is applied to all development programs, resulting in (i) relocation of loss of shelter; (ii) loss of assets of access to assets; or (iii) loss of income sources or means of livelihood.
Article 5 [Land Law]: "No person shall be deprived of their ownership unless...for the public interest...and after just and fair compensation is provided,"	The Bank's policies provide that compensation for lost assets must be made on the basis of replacement cost.
Article 6 [Land Law]: "...All transfer or changes of right of ownership shall be made under the rules of general procedures of sale, succession, exchange, or donation, or by the court decision."	Customary and formal right is recognized equally in providing assistance and in devising criteria for entitlements and procedures for compensation other resettlement assistance.
Article 19 [Land Law]: "...any illegal and intentional or deceitful acquisition of the public domain of the State of public legal entity shall be punished..."	the Word Bank's Policy, in Op 4.12, para 15/16, that "Displaced persons who have no recognizable legal right of claim to the land they are occupying are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary to achieve the objectives of the 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,"
The RGC will not spend national budget to make payment for structures of other items located on the RGC claimed rights of way.	When Involuntary Resettlement is avoidable under a Bank-financed project, the responsibility rests with the borrower country to follow the Banks' policies and laws, the Banks' policies shall be applied, as per the RP. The RP is viewed as a legal commitment in this regard.
Proclamation No. 6 defines that the right of way is 25 m from each side of National Roads, with all two-digit roads being National Roads.	Proclamation No. 6 is not applicable in the Transmission Line ROW.

5.6. ELIGIBILITY AND ENTITLEMENTS

5.6.1. Eligible Parties

Eligible parties for the purpose of this project are identified as Affected Persons (APs). This term refers to a collective unit of entitlement, and is used in this document to refer to families, other households, individuals and businesses and any other group affected by the project. APs eligible for compensation shall be those who experience negative impacts on their assets or livelihoods as a result of the Project. Measures will be incorporated in Project design to minimize adverse impacts.

APs eligible for compensation shall include the following:

- . For land required to be permanently acquired for the Project (transmission towers, substations, roads):
 - Owners with Formal Legal Title
 - Owners/ occupiers who are eligible for Formal Legal Title under Cambodian law
 - APs with other recognized Land Use Rights

- Occupiers who are not eligible for Formal Legal Title
- . For permanent removal within the ROW, of houses, other structures and improvements, and land based assets such as trees
 - Owners of houses and other structures (whether with land title or not)
- . For temporary effects such as disturbance to crops during construction:
 - . Farmer/land users/owners of infrastructure within the ROW
- . For effects on businesses
 - Owners of businesses
 - Employees who have lost income as a result of the Project.

Types of APs and their proposed eligibility for compensation are detailed in the Entitlements Matrix.

It is a World Bank requirement that compensation is not restricted to those with Formal or Legal Land Title. All recognized landowners, occupiers and users will be eligible for compensation.

In the case of APs living in or using land within the ROW of roads or railway lines, APs shall be fully eligible for compensation.

Those eligible are identified in the AP Census, prepared as part of the Project.

5.6.2. Non-Eligible APs and Cut-off Date

APs that move into the Project area after the *Cut-Off Date* will not be eligible for land acquisition compensation, though any such APs would be eligible for compensation caused by Construction activities. The cut-off date for determining eligibility for compensation shall be at the time of undertaking the AP Census that will take place after Detailed Design and pegging of the ROW and substation sites. This will be done at the same time as the official Detailed Measurement Survey/Inventory of Losses, which will be the basis for compensation, and at which time the APs and local authorities or their representatives on the Survey Teams will sign the Survey Forms agreeing to Detailed Measurement Survey/Inventory of Losses for each AP, after detailed design and pegging. A formal indication of the completion of this process will be the approval by World Bank and RGC.

The purpose of the Cut-Off Date is to minimize the incentive for land speculation, and minimize the incentive for people to move into the Project area in the hope of gaining compensation.

However, it may be possible that some APs may have been missed in the Census. Therefore those who can demonstrate that they are eligible will also be included in the AP Census.

5.6.3. Entitlements Matrix

The Entitlements Matrix (Table 5.2) summarizes the types of impacts, APs who shall be eligible for compensation, what their entitlements shall be, and provides comments on

implementation issues.

Table 5.2: Entitlement Matrix

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
1. Land Acquisition			
1.1 Permanent acquisition of arable land (required for transmission towers, Substation and roads).	<ul style="list-style-type: none"> ▪ Owner with formal legal title, of land required to be acquire for the Project ▪ Owner/ occupiers, eligible for formal legal title under Cambodian law. ▪ Owner/ Occupiers with other evidence (land use certificates, application for land use certificates etc) of ownership/ use rights. ▪ Other recognized locally as having ownership/use rights. <p>Occupiers of land owned by other. Whether, tenants, or renters and other possessory land users.</p>	<ul style="list-style-type: none"> ▪ Compensation: preferably as equivalent replacement land nearby, including the cost of land fill if needed, or cash equivalent to replacement cost at the current market rate for buying same. (If less than 20% of total productive landholding affected, then cash is acceptable). ▪ Impact on viability of remaining land, due to fragmentation or reduced size, also needs to be considered. Therefore where the remaining land is not viable for its current use, compensation shall be provided for the entire parcel of land. ▪ Full Replacement Value of structure and improvements. ▪ Severely affected farmers eligible for income rehabilitation assistance (agricultural extension assistance to increase productivity on remaining land or training in a new livelihood) and cost of living allowance during the transition period. 	<ul style="list-style-type: none"> ▪ Replacement value shall be agreed at DMS stage, through consultation. ▪ Land replacement or payment shall be made before construction being, with sufficient time allowed for re-establishment of affected people. ▪ Replacement land to be free from taxes, registration and transfer costs
	<ul style="list-style-type: none"> ▪ Owner of land, not used by Themselves 	<ul style="list-style-type: none"> ▪ Market value of land 	
	<ul style="list-style-type: none"> ▪ Agricultural laborers 	<ul style="list-style-type: none"> ▪ Cash compensation equivalent to 3 months salary and assistance in obtaining alternative employment 	

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
<p>1.2 Permanent acquisition of residential of commercial and (Require for transmission towers, substation and roads).</p>	<ul style="list-style-type: none"> ▪ Owners with formal legal title, of land require to be acquired for the Project ▪ Owners / occupiers, eligible for formal legal title under Cambodian law. ▪ Owners / occupiers with other evidence (land use certificates, applications for land certificates, etc) of ownership / use rights ▪ Others recognized locally as having ownership / use rights ▪ Occupiers of land owned by other, whether possessory land users, tenants, or renters. 	<ul style="list-style-type: none"> ▪ Compensation: in cash at full replacement cost or, at APs choice, where more than 8 houses in one village want to locate to a group site, replacement land of a plot of standard size on a fully serviced resettlement site. ▪ When the affected premises are larger than the replacement plot, cash compensation at replacement cost to cover the difference in area. ▪ Impact on viability of replacement land, due to fragmentation or reduced size, also needs to consider. Therefore where the remaining land is not viable for its current use, then compensation shall be provided for the entire parcel of land. ▪ full Replacement Value of structures and improvements. ▪ Under the Cambodia Law the ROW is public state land . So, the compensation for land in the ROW is compensated for land use only, which equals to \$0.50/m² . 	<ul style="list-style-type: none"> ▪ Replacement value shall be agreed at DMS stage, through consultation. ▪ Land replacement or payment shall be made before construction begins, with sufficient time allowed for re-establishment of affected people. <p>Replacement land to be free from taxes, registration and transfer cost</p>
<p>1.3 Permanent acquisition of arable, residential and commercial land for transmission towers, substation and roads (Land in road ROW).</p>	<ul style="list-style-type: none"> ▪ Owners with formal legal title, of land require to be acquired for the Project ▪ Owners / occupiers, eligible for formal legal title under Cambodian law. ▪ Owners / occupiers with other evidence (land use certificates, applications for land certificates, etc) of ownership / use rights ▪ Others recognized locally as having ownership / use rights ▪ Occupiers of land owned by other, whether possessory land users, tenants, or renters. 		

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
2. Removal of Structures, Trees, Etc (Not Necessary Involving Land Acquisition)			
<p>2.1 Removal of houses and other structures from ROW (required to be removed for safety reasons) – where house can be relocated on same block of land</p>	<p>Owners of houses and other structures (well pond, fence, latrine, shed kiosk or shop, etc) (whether with land title or not)</p>	<ul style="list-style-type: none"> ▪ Full Replacement Value of structures (no reduction for depreciation or salvage value) ▪ Where structure only partly within ROW, but whole structure needs to be moved, then compensation shall be due for whole structure ▪ Reinstatement of equivalent improvements and infrastructure including other buildings, fences, wells, ponds, etc. <p>Relocation Expenses and Cost of Living Allowance during the transition period</p>	<ul style="list-style-type: none"> ▪ Replacement value shall be agreed at DMS Stage, on basis of formula for type of house and area, and a competent technical survey ▪ Materials shall be available for salvage by owner, with no reduction in payment ▪ Replacement of payment shall be made before construction begins, with sufficient time allowed for re-establishment ▪ Any Permits needed for building shall be arranged by Implementing agency ▪ AP retains ownership of the affected land, but with restricted use <p>Sufficient time shall be allowed for re-establishment of houses and infrastructure before construction begins</p>

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
<p>2.2 Removal of house structure from ROW-where house cannot be relocated on same block of land, requiring owners to relocate to another residence.</p>	<p>Owners of houses and other structures (well, pond, fence, latrine, shed, kiosk or shop, etc) (whether with land title or not)</p>	<ul style="list-style-type: none"> ▪ Full Replacement Value of structures (no reduction for depreciation or salvage value) plus: <ul style="list-style-type: none"> ▪ Equivalent Replacement Land within the same village as a priority, or if replacement 1 and cannot be provided, cash sufficient to buy replacement land, or cost thereof. Land to be equivalent in terms of area, access, within same village, above flood level, etc. ▪ Where structure only partly within ROW, but whole structure needs to be moved, then compensation shall be due for whole structure ▪ Reinstatement of equivalent improvements and Infrastructure including other buildings, fences, wells, ponds, etc. ▪ Relocation Expenses and Cost of Living Allowance during the transition period 	<ul style="list-style-type: none"> ▪ Replacement Value shall be agreed at DMS Stage, on basis of formula for type of house and area and a competent technical survey ▪ Materials shall be available for salvage by owner, with no reduction in payment ▪ Replacement or payment shall be made before construction begins, with sufficient time allowed for re-establishment ▪ Any Permits needed for building shall be arranged by Implementing Agency ▪ AP retains ownership of the affected land, but with restricted use. ▪ Sufficient time shall be allowed for u establishment of houses and infrastructure before construction begins
<p>2.3 Removal of rented houses from ROW</p>	<ul style="list-style-type: none"> ▪ Tenants paying rent on houses owned by others. 	<ul style="list-style-type: none"> ▪ Relocation Expenses and Cost of Living Allowance during the transition period. Three months' rent allowance 	<ul style="list-style-type: none"> ▪ Sufficient time shall be allowed for re-establishment of houses and infrastructure before construction begins ▪ Assistance shall be provided to ensure that an equivalent replacement house acceptable to the Affected Person is obtained.

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
2.4 Cost of Living Allowance during the transition period	<ul style="list-style-type: none"> ▪ All relocating households and farmers losing 20% or more of their total productive landholding 	<ul style="list-style-type: none"> ▪ Cost of Living Allowance during the transition period US\$40 or equivalent to 40 kg of rice per household for three months, whichever is greater. 	<ul style="list-style-type: none"> ▪ Cost of living allowance shall be paid on a monthly basis in advance during the transition period.
2.5 Relocation costs of transporting new and salvaged materials and personal possessions.	<ul style="list-style-type: none"> ▪ Relocating households and businesses. 	<ul style="list-style-type: none"> ▪ Cash payment of \$40 per household. 	<ul style="list-style-type: none"> ▪ This amount is reportedly sufficient to transport possessions from Phnom Penh to Kampong Cham, Phnom Penh to Stung Treng and should therefore be sufficient to transport within or between villages.
2.6 Special assistance for social or economically vulnerable households	<ul style="list-style-type: none"> ▪ APs belonging to vulnerable groups, including households who are very poor (earning less than \$14 per month), headed by the aged, women, disabled, or otherwise vulnerable, such as ethnic minorities 	<ul style="list-style-type: none"> ▪ A US \$20 allowance plus additional cash and other assistance as needed, based on identified needs and priorities. Household with more than one factor. For example, households that are very poor and headed by a woman would be entitled to \$40, etc. 	
2.7 Removal of trees and standing crops from ROW (requiring to be removed for safety reasons)	<ul style="list-style-type: none"> ▪ Owner of trees and standing crops 	<ul style="list-style-type: none"> ▪ Full replacement value, for type, size, age, and productive value of trees or crops or replacement of trees by planting at cost. ▪ Owners severely affected by loss of 20% or more of household income due to loss of trees shall be entitled to income restoration assistance, through a revolving micro-enterprise loan fund and assistance to increase productivity on remaining land or to learn a new livelihood. 	<ul style="list-style-type: none"> ▪ Trees shall be available for salvage by owner, with no reduction in payment ▪ An income restoration strategy is being designed in coordination with existing livelihood programs already in operation in the project areas.

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
3. Business Impacts			
3.1 Removal and relocation of business premises from the ROW.	<ul style="list-style-type: none"> ▪ Owner of business 	<ul style="list-style-type: none"> ▪ As above for replacement of houses, structures and infrastructure. 	<ul style="list-style-type: none"> ▪ As above for removal of houses, structures, structures and infrastructure.
3.2 Disruption Allowance	<ul style="list-style-type: none"> ▪ Owner of business unable to carry out normal activities during the transition period. ▪ Owner of house that interrupted during the transition period. 	<ul style="list-style-type: none"> ▪ Allowance paid in cash and/or in-kind equivalent to \$40 per APs. 	<ul style="list-style-type: none"> ▪ Payment shall be made before construction begins.
3.4 Lost salaries and wages while business interrupted during reestablishment period.	<ul style="list-style-type: none"> ▪ Employees of business that is interrupted. 	<ul style="list-style-type: none"> ▪ Payment of allowance equivalent to lost salary/wage income during the transition period of US\$40 or equivalent to 40kg of rice per employees the business for three months, for business that will be required to close down during the relocation period. 	<ul style="list-style-type: none"> ▪ Payment shall be made before relocation begins.

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
4. Temporary Construction Impacts			
4.1 Damage to crops during construction (temporary impact).	<ul style="list-style-type: none"> ▪ Owner of crops 	<ul style="list-style-type: none"> ▪ Compensation for lost production in cash at market price (value of lost production within ROW) for the period of construction. This will be a minimum of one harvest where damage occurs during growing season. 	<ul style="list-style-type: none"> ▪ Every effort will be made to schedule construction outside of growing season (including field preparation, planting harvesting and other agricultural activities). ▪ Construction will be carried out so as to minimize damage. This will include preparation of a construction Environmental Management Plan (EMP), including social aspects, incorporating environmental and social requirements in the contract, and monitoring to ensure compliance, and financial penalties on the EDC or contractor for non-compliance. Consideration will also be given to minimizing the use of heavy machinery (this is also likely to have benefits in terms of employment generation). ▪ Construction will be required by contract to stay within ROW. ▪ Contractor will be responsible for these costs, liable through supervising engineer.
4.3 Damage to fields, and associated infrastructure including bund walls, drains and canals.	<ul style="list-style-type: none"> ▪ Person using the field 	<ul style="list-style-type: none"> ▪ Cash payment of \$40. 	
4.4 Damage to any other assets or infrastructure during construction (including communally owned resources such as roads, drainage and irrigation facilities)	<ul style="list-style-type: none"> ▪ Owners of the assets or infrastructure damaged. 	<ul style="list-style-type: none"> ▪ Repair of damage, or cost of repair at replacement cost in cash. 	

Type of Impact	Type of Eligible Person	Compensation Entitlement	Notes on Implementation
5. Ongoing Impacts Due to Maintenance Activities			
5.1 Damage to crops during maintenance activities.	<ul style="list-style-type: none"> ▪ Owner of crops disturbed or damaged. 	<ul style="list-style-type: none"> ▪ Compensation for lost production (value of lost production within ROW for the period of construction). 	<ul style="list-style-type: none"> ▪ Every effort will be made to schedule construction outside of growing season (including field preparation, planting harvesting and other agricultural activities).
5.3 Damage to fields, and associated infrastructure including bund walls, drains and canals.	<ul style="list-style-type: none"> ▪ Person using the field 	<ul style="list-style-type: none"> ▪ Cash payment of \$40. 	<ul style="list-style-type: none"> ▪ Construction will be carried out so as to minimize damage. This will include preparation of a construction Environmental Management Plan (EMP), including social aspects, incorporating environmental and social requirements in the contract, and monitoring to ensure compliance, and financial penalties on the EDC or contractor for non-compliance. Consideration will also be given to minimizing the use of heavy machinery (this is also likely to have benefits in terms of employment generation).
5.4 Damage to any other assets or infrastructure during construction (including communally owned resources such as roads, drainage and irrigation facilities)	<ul style="list-style-type: none"> ▪ Owners of the assets or infrastructure damaged. 	<ul style="list-style-type: none"> ▪ Repair of damage, or cost of repair. 	<ul style="list-style-type: none"> ▪ Maintenance activities will be required by contract to stay within the ROW. ▪ EDC or contractor will be responsible for these costs, liable through supervising engineers.



VI. RESETTLEMENT BUDGET AND FINANCING

6.1. BASIS OF COMPENSATION COST ESTIMATE

The compensation rates for the various categories were based on the Estimated Cost for Resettlement Plan activities Project along the National Road No. 7 from Kratie-Stung Treng to Laos-Cambodia Border. These are 2006 cost estimates only and will be adjusted upward at the time of a Detailed Measurement Survey to reflect the current market value at the time of compensation.

6.1.1. Business Impact

All affected shops or businesses will be compensated at full replacement cost without deduction for depreciation or salvageable materials for affected structures and other fixed assets. A rate of US\$ 40 or the equivalent to 40kg of rice per household for three (3) months, for business that will be required to close down during the relocation period will be provided in a lump sum amount to any small shops while big businesses have to provide their business income statement. For employees, cash compensation for lost wages for each day they cannot work while business is reorganizing at new site.

6.1.2. Temporary Construction Impact

Crop damage during construction and interference with field preparation and planting: The rate used for compensation for rice crop damage is depending on a number of factors, especially the yield of rice (tones per hectare) and the market price for the rice.

- a. Rice yields vary with soil type, farming practices (such as irrigation, fertilizer, and field preparation) and quality of seed. A rice yield of 2.5t/ha of paddy rice, with one crop per year, has been adopted for the compensation estimate for the wet season lowland rice growing, which is the main form in the project area. There is some dry season recession rice growing practiced in the far southern part of the project area, for which a higher yield of 5t/ha has been adopted.
- b. A crop value of US\$ 200/t has been used in the cost estimate. A range of prices has been reported, which may be due to variability between times of year.
- c. Construction activity will damage crops and interfere with field preparation and related farm work, depending on the timing of construction with respect to timing of farm work. It is possible that construction could be timed to avoid damage; however this would be difficult to manage and may increase the cost of construction. In addition the cost and complexity of monitoring would significantly increase.

1. It is inevitable that the contractor will damage fields, bund walls, etc during construction. However, the contract will require that the contractor make good any damage incurred during construction.
2. The contractor will carry out repairs to other infrastructure. This will be built into the contract requirements. For local public roads, such as the transport of heavy equipment such as transformers into the substation.

The estimate has been based on conservative assumptions that construction of every tower will impact the growing season in one year and that the contractor will create a 3 m wide access road the full length of the 115kV line and occupy for one growing season. Realistically, the contractor will carry out the majority of the tasks that will impinge on farm land in the fallow season so that little compensation will be required.

- d. Compensation for on-going impacts during maintenance activity has not been included in the costing as this is outside the scope of the project implementation. Cost of ongoing maintenance would be expected to be small, consisting of possible damage to crops and ground while accessing the line. This should be built into the maintenance contract by requiring the contractor to make good any damage caused.

6.2. TPTAL ESTIMATED COST OF RP IMPLEMENTATION

Total estimated costs of implementation of the RP are US \$ 563,694 including all entitlements, implementation and contingencies and Incremental Administrative Costs of implementation are set out below.

6.2.1 Incremental Administrative Costs

The incremental costs of administration related to the preparation and implementation of the RP are set out below.(Proposed by Ministry of Economy and Finance)

Table No 6.1: Estimated Cost of RP Implementation and Monitoring

Item	Unit	Nr	Rate	Cost in US \$
1- Kampong Cham Province				
Replacement Cost Study	Day	20	500.00	10,000.00
Detail Measurement Survey	Month	2	10,000.00	20,000.00
RP Implementation	Month	4	15,000.00	60,000.00
Community Consultation	Month	3	5,000.00	15,000.00
Monitoring- PMU, EDC/RU,MEF	Month	10	1,000.00	10,000.00
Evaluation- PMU, EDC/RU,MEF	Month	5	2,000.00	10,000.00
Reporting	Month	5	500.00	2,500.00
Administration	Month	10	1,000.00	10,000.00

Grivance Committee	L/S	2	4,000.00	8,000.00
SubTotal				145,500.00
2- Stung Treng Province				
Replacement Cost Study	Day	10	500.00	5,000.00
Detail Measurement Survey	Month	1	10,000.00	10,000.00
RP Implementation	Month	2	15,000.00	30,000.00
Community Consultation	Month	1.5	5,000.00	7,500.00
Monitoring- PMU, EDC/RU,MEF	Month	5	1,000.00	5,000.00
Evaluation- PMU, EDC/RU,MEF	Month	2.5	2,000.00	5,000.00
Reporting	Month	2.5	500.00	1,250.00
Administration	Month	5	1,000.00	5,000.00
Grivance Committee	L/S	1	4,000.00	4,000.00
SubTotal				72,750.00
External NGO Monitoring				
Supervisor/Team leader	Month	8	3,700.00	29,600.00
Enumerators	Month	16	500.00	8,000.00
SubTotal				37,600.00
Total				255,850.00

6.2.2 Compensation Cost Estimated

The total costs of compensation for the Project are estimated at US \$ 256,674 with a 20% contingency.

As mentioned earlier, the compensation rates and kinds of lands for the various categories are based on the Government Recommendation from Ministry of Economy and Finance (see Appendix). These are 2006 cost estimates only and will be adjusted upward at the time of a Detailed Measurement Survey to reflect the current market value at the time of compensation.

Table 6.2: Compensation Cost Estimated

Category	Item	Market Rate	No. of	Cost
		Estimates	Units	Estimates
		2006 Rates (US\$)		2006 (US\$)
I	Structure			
	Small business shop (lump sum: land use, loss of income, rebuilding)	900.00	94	84,600.00
	Sub-Total I			84,600.00
II	Land			
	Kampong Cham Province			
	A. Transmission Poles 115kV line			
	- Area of land for Poles			
	- Agriculture Land	1m ² / \$1.00	1022	1,022.00
	- Residential Land	1m ² / \$2.00	1740	3,480.00
	B. Land for substation			
	+ Kampong Cham Substation			
	- Agriculture Land	1m ² / \$1.00	1670	1,670.00
	- Residential Land	1m ² / \$2.00	3230	6,460.00
	- Area of land for access road to K.Cham Substation			
	- Agricultural Land	1m ² / \$1.00	0	0
	- Residential Land	1m ² / \$2.00	163	326.00
	+ Suong Substation			
	- Agriculture Land	1m ² / \$1.00	1290	1,290.00
	- Residential Land	1m ² / \$2.00	3610	7,220.00
	- Area of land for access road to Suong Substation			
	- Agriculture Land	1m ² / \$1.00	0	0
	- Residential Land	1m ² / \$2.00	163	326.00
	+ Kraek Substation			
	- Agriculture Land	1m ² / \$1.00	850	850.00
	- Residential Land	1m ² / \$2.00	4050	8,100.00
	- Area of land for access road to Kraek Substation			
	- Agriculture Land	1m ² / \$1.00	0	0
	- Residential Land	1m ² / \$2.00	162	324.00
	Sub-Total			31,068.00
	Stung Treng Province			
	A. Transmission Tower 115kV line			
	- Area of land for Tower			
	- Agriculture Land	1m ² / \$ 1.00	2000	2,000.00
	- Residential Land	1m ² / \$2.00	2062	8,124.00
	B. Land for substation			

	- Stung Treng Substation			
	- Agriculture Land	1m ² / \$ 1.00	0	0
	- Residential Land	1m ² / \$2.00	3500	7,000.00
	- Area of land for access road for Stung Treng Substation			
	- Agriculture Land	1m ² / \$1.00	0	0
	- Residential Land	1m ² / \$2.00	112	224.00
	Sub-Total			17,348.00
	Sub-Total II			48,416.00
III	Fruit Trees			
	Vietnam Border-Kampong Cham			
	Coconut	\$15.00	1684	25,260.00
	Palm tree	\$8.00	424	3,392.00
	Mango	\$25.00	1214	30,350.00
	Slar Tree	\$7.50	1625	12,187.50
	Sub-Total		4947	71,189.50
	Laos Border-Stung Treng			
	Sdoa	\$5.00	14	70.00
	Bamboo	\$5.00	81	405.00
	Palm Tree	\$8.00	45	360.00
	Mango	\$25.00	105	2,625.00
	Coconut	\$15.00	32	480.00
	Kor	\$5.00	7	35.00
	Putrea	\$5.00	7	35.00
	Banana	\$5.00	50	250.00
	Por	\$5.00	1	5.00
	Tamarine Tree	\$5.00	16	80.00
	Sugar Can	\$5.00	10	50.00
	Jack Tree	\$10.00	10	100.00
	Forest Tree	\$5.00	959	5,195.00
	Sub-Total		1337	9,690.00
	Sub-Total III			80,879.50
	Sub-Total (I+II+III)			213,895.50
IV	Administrative Cost			255,850.00
	Sub-Total (I+II+III+IV)			469,745.50
	Contingency (20%)			93,948.50
	Total as per 2006 rate			563,694.00



VII. CONSULTATION

7.1. Objective of the Consultation

Information dissemination to consultation with participation of affected villagers, involved agencies and stakeholders reduce the potential for conflicts, minimize the risk of Project delays, and enable the Project to design resettlement and rehabilitation as a comprehensive development program to suit the needs and priorities of the affected villagers, thereby maximizing the economic and social benefits of the investment. Specific objectives of the public information campaign and public consultation are as follows:

- ▶ To establish a clear, easily accessible and effective complaints and grievance procedure.
- ▶ To share fully the information about the proposed Project, its components and its activities, with the affected villagers.
- ▶ To obtain information about the needs and priorities of the affected villagers, as well as information about their reactions to proposed policies and activities.
- ▶ To inform about various options for relocation and rehabilitation measures available to the affected villagers.
- ▶ To obtain the cooperation and participation of the affected villagers and communities in activities required to be undertaken for resettlement planning and implementation.
- ▶ To ensure transparency in all activities related to land acquisition, resettlement and rehabilitation.
- ▶ To assist affected villagers relocating to replacement houses.

7.2. Methodology

During the site survey in February and March, 2006, the study teams conducted interviews and consultations with villagers, head of villages, and head of communes for Vietnam Border-Kampong Cham and Laos Border to Stung Treng transmission line Project. The study teams directly visited houses of head of village, head of commune, and invited affected villagers to attend the consultation meeting.

According to data sheets, general information of the villages, specific information of affected land, villagers' attitudes and comments towards the project's impact were collected by interviews.

7.3. Date of Consultation

- | | |
|----------------|--|
| - Stung Treng | February 05, 2006 to February 11, 2006 |
| - Kampong Cham | March 14, 2006 to March 18, 2006 |
| - Kampong Cham | May 05, 2006 to May 09, 2006 |

7.4. Participation

In the context of resettlement, public participation includes both the information exchange (dissemination and consultation), and collaborative forms of decision-making (participation). Dissemination refers to transfer of information from Project authorities to the affected population. Consultation, on the other hand, generally refers to joint discussion between 40 Project authorities and the affected population serving as a conduit for transfer of information and sharing of ideas. Public participation is an ongoing process throughout resettlement planning and implementation, not an event, the level of information which is disseminated of the issues on which consultation takes place vary with the progress in the Project process and resettlement activities.

Table 7.1: List of Consultation information

No	Province	Date	Village Names	Head of Commune	Head of village	Affected Villager
1	Kampong Cham Province	March 15, 2006	Andoung Chea	Mr. Vong Seang Heang	4 heads of village	Including Affected Villagers
2		March 16, 2006	Chubkroa	Mr. Kan Kuhly	4 heads of village	Including Affected Villagers
3		March 16, 2006	Poun	Mr. Som Hey	2 heads of village	Including Affected Villagers
4		March 17, 2006	Suong Lech	Mr. Chhuong Pherom	2 heads of village	Including Affected Villagers
5		March 18, 2006	Dang Kambet	Mr. Nov Oun	2 heads of village	Including Affected Villagers
6		March 18, 2006	Viel Knach	Mr. Bul Ean	4 heads of village	Including Affected Villagers
7		May 05, 2006	Phsar Kandal Chrum	Mr. Sok Kimchann	5 heads of village	Including Affected Villagers
8		May 06, 2006	Steng	Mr. Men Be	5 heads of village	Including Affected Villagers
9		May 07, 2006	Chiman Kandal	Mr. Suon Ty	8 heads of village	Including Affected Villagers
10		May 08, 2006	Trapaing Pring I	Mr. Hem Phat	7 heads of village	Including Affected Villagers
11	Stung	February	Koh Korden	Mr. Hao Phorn	6 heads of	Including

	Treng Province	08, 2006			village	Affected Villagers
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7.5. Main Discussion

Summary of project description was explained to the participants. Project Impacts, this particularly applied to the limited extent of the land acquisition requirement, permanent land acquisition, which is require for the tower, pole based and substation, compensation entitlement, and Economic Benefits were raised by the survey team as well as participants' feedbacks also requested. Since the impact of the project will be minimized and mitigated, the participants basically agreed the implementation of the project. As all villagers were well aware of the project by comparing to the benefit resulting from the project, they expressed no concern with respect to adverse impacts.

Discussions were also held with village head about land availability, recent land transactions and market rates and with contractors and suppliers about replacement costs for structures, materials and labor.



VIII. INSTITUTIONAL ARRANGEMENT

8.1. Implementation Organisation and Responsibility

Nine key parties will be responsible for the implementation of the EMP. These are:

- EdC - including Project Management Offices (PMO)
- Inter-ministerial Resettlement Committee (IRC)
- Design and Construct Contractor (DCC)
- Project Implementation Consultant (PIC)
- Independent Monitoring Organization (IMO)
- RP / Environmental Coordinator (RPEC Consultant)
- Local Authority Sub-Committees (LASC)
- Commune Councils (CC) and
- Grievance Redress Committee (GRC)

8.1.1. EdC

EdC will be directly responsible for the implementation of the project, managing and supervising the project, including the RP requirements and taking the necessary actions of environmental issues. This state-owned enterprise is jointly owned by the Ministry of Industry, Mines and Electricity (MIME) and the Ministry of Economy and Finance (MEF), hence it is under their overall supervision and joint control. MIME will have overall responsibility for implementation of the Project.

Project Management Offices

Project Management Office (PMO) within EdC will have overall responsibility for the preparation, design and construction of the project including the collection (analysis) of the data, updating, management and implementation of the RP and report some environmental issues to be solved to EdC. The PMO will be staffed on a full time basis and will be dissolved after the project is handed over to the EdC. Figure 8-1 shows the organizational structures of the PMO within EdC. The official supervision of the contractors will be the responsibility of the Resident Engineers, representing the PIC.

The specific responsibility for land acquisition, compensation payments and resolution of individual grievances lies with the Project Manager for the project. Project Implementation Consultant (PIC) experts, including Resident Engineers and other technical, resettlement, and environment staff will support the Project Manager. An RP and Environment Coordinator (RPEC Consultant) will be appointed to coordinate the activities required under the RP. The RPEC will report directly to the Project Manager of the PIC. As the RPEC Consultant is a part-time function, a Local Counterpart RPEC will be appointed by EDC as a full time member of the team.

8.1.2. Inter-ministerial Resettlement Committee

An Inter-ministerial Resettlement Committee (IRC) was established in January 2001 to investigate and assess the impact on the private structures, households and land within the

transmission line ROW. The IRC will oversee the social and environmental requirements of the project, including approving compensation rates determined by the Contractor and reporting activities to the RGC and requesting approval where necessary. The Committee consists of MEF, Provincial Governors, EdC, MIME, MOE, Ministry of Land Management, Urban Planning and Construction, and Industry of the Council of Ministries.

8.1.3. Design and Construction Contractor

The Design and Construct Contractors (DCC) will prepare the final project design and construct all proposed structures, and will be responsible for ensuring that the RP and EMP are adhered to.

The DCC survey and design teams will be responsible for preparing a final design that minimizes adverse impacts, consistent with the technical and economic objectives of the project. The DCC will initially hire the RPEC and the IMO in the design phase to ensure that EMP activities and studies required in this phase are undertaken correctly and that there is a smooth transition into project implementation. The DCC Project Manger will supervise the RPEC and provide technical assistance and logistical support to the IMO as required.

8.1.4. Project Implementation Consultant

A Project Implementation Consultant (PIC) will be appointed by EdC on approval of the project and assume overall responsibility for the project. The Project Implementation Consultant will be responsible for ensuring that the RP and environmental requirements are fully implemented including ensuring the resolution of any issues that may arise between this and other aspects of the project. The PIC will appoint and supervise the RPEC. It will also provide technical assistance and logistical support to the IMO as needed to do its work.

8.1.5. Independent Monitoring Organization

The Independent Monitoring Organization (IMO) will be appointed to monitor and verify that the resettlement and compensation process has been implemented in accordance with the implementation of RP measures, and to verify that compensation, resettlement and rehabilitation. The IMO will also be involved in the complaints and grievance procedures to ensure concerns raised by APs are addressed. The IMO will be under the budget of the supervising engineer Project Manager (DCC and PIC), who will hire the IMO and to whom the IMO will directly report to, through the RPEC.

8.1.6. Resettlement Plan Environmental Coordinator (the RPEC Consultant)

An RPEC Consultant (RPEC) will be appointed to coordinate the activities required under the RP and implementation of environmental requirements. The RP Consultant shall report to the Project Manager (PIC or Project Engineer).

As most of the implementation social and environmental issues will revolve around the resettlement issues and operation of the various Resettlement Sub-Committees and the GRC, the RPEC will need to be a specialist in involuntary resettlement and will provide ‘hands on’

capacity building training to EdC in implementing the RP and to the independent NGO involved in monitoring and evaluation activities. The RPEC shall, among other activities:

- Update, implement and monitor the RP
- Establish and implement a resettlement data management system including procedures for the accurate recording of all land and properties of the APs and other collected in the detailed measurement survey DMS, entitlements and census data
- Liaise and coordinate local authorities to ensure that APs are informed of their entitlements, and implement information campaigns and stakeholder participation
- Establish and implement procedures to minimize adverse social impacts from land acquisition and loss of other assets throughout the planning, design and implementation phases
- Establish and implement procedures for undertaking and completing census and detailed measurement survey (DMS)
- Contract an independent asset appraiser to determine compensation unit rates at replacement cost for all categories of losses,
- Prepare budgets for RP activities
- Organize and carry out specific studies, such as a “Trees Costs and Production Losses Assessment”
- Establish and implement procedures for the coordination of compensation, relocation of houses, and rehabilitation activities of the various RP components
- Design and implement any detailed income restoration or agricultural assistance programs for APs severely affected by loss of income (i.e. loss of 10% or more of household income from tree crops)
- Arrange suitable assistance programs and supervise the implementation of such rehabilitation measures
- Establish and implement procedures for tracking compliance to project policies
- Establish and implement suitable procedures for the prompt implementation of corrective actions and the resolution of grievances from APs in coordination with concerned local Resettlement sub-Committees and government agencies
- Coordinate local resettlement authorities and the GRC to assure that grievances about resettlement activities are satisfactorily redressed and related are correspondence reported
- Establish and implement liaison mechanisms to ensure proper technical and logistical support to PMOs, Project Manager and teams and local resettlement sub-committees occur
- Establish and implement procedures for ongoing internal monitoring of RP
- Supervise the external Independent Monitoring Organization (IMO) activities and ensure that the Terms of Reference are properly and effectively achieved.

Successful implementation of the RP will require close coordination between the PMO and the Provincial, District and Commune Resettlement Sub-Committees and authorities. These together may be deemed to be an RP Working Group, and the RPEC will have the responsibility for facilitating the coordination between these various groups and authorities.

8.1.7. Local Authority Sub-Committees

Local Authority Sub-Committees will be established in each project province to assist the PMO resettlement team. Each Sub-Committees will be headed by the Provincial Governor with members comprising District Governors, Chief of Communes and village heads along the ROW. The Sub-Committees will: carry out a public information campaign, public participation and consultation; finalize compensation and entitlement forms for each AP; pay compensation and allowances; plan and implement all resettlement and rehabilitation activities at the district and commune level; establish the GRC at the commune level; address all grievances in the communes; and maintain records of all public meetings, grievances and actions taken to address them.

8.1.8. Commune Councils

Commune Councils in each affected Commune will be utilized to assist with EMP implementation by organizing public meetings and consultation, guiding the EMP team during the Detailed Measurement Survey (DMS) revalidating inventory, facilitating conflict resolution and witnessing the agreed of the villager in constructing the project.

8.1.9. Grievance Redness Committee

A Grievance Redress Committee (GRC) will be established for the consideration of complaints and grievances from the APs. A procedure shall be set up which protects and the rights of the APs, and its implementation will be monitored by the IMO. The GRC will have as members, representatives of the following:

- PMO / EdC
- IRC
- IMO
- Commune or local leaders for each villages and local areas
- Nominated NGO representative, as an advocate of APs.

The community consultation program will provide APs with the contact details for submission of complaints and grievances. This shall include a phone contact and address for written submissions. However, as this is not a practical means of communication for many people in remote areas. It will also be necessary to establish an appropriate alternative avenue for people who are illiterate or for whom these are not appropriate avenues including use of an approved NGO as their advocate. People shall also have the option of contacting the IMO directly should they wish or registering their grievance with a local authority or their local Member of Parliament.

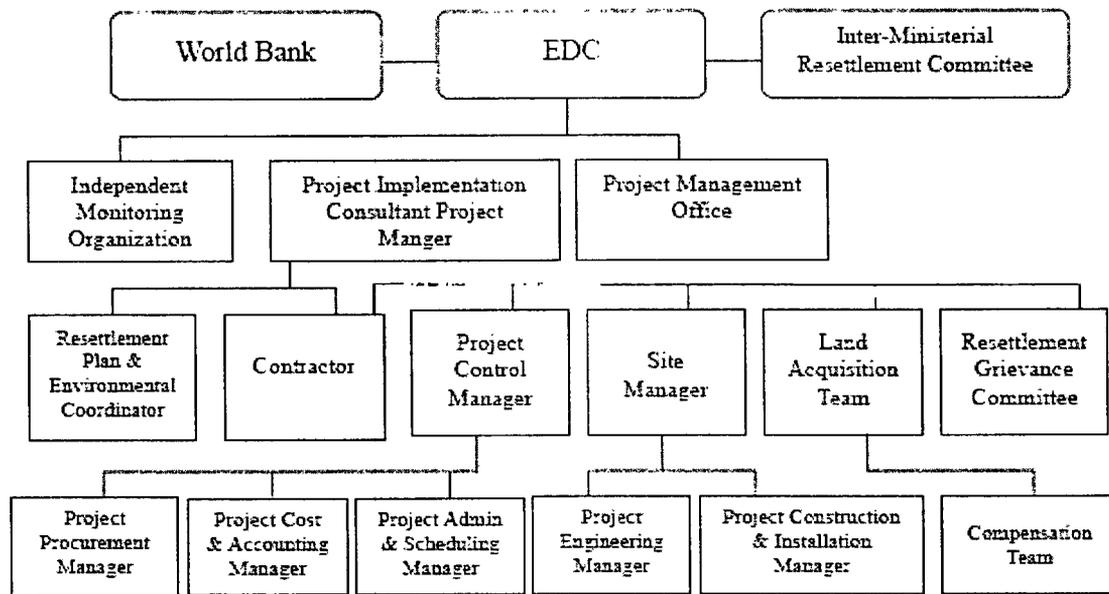


Figure 6.1: Overall Operation Interaction

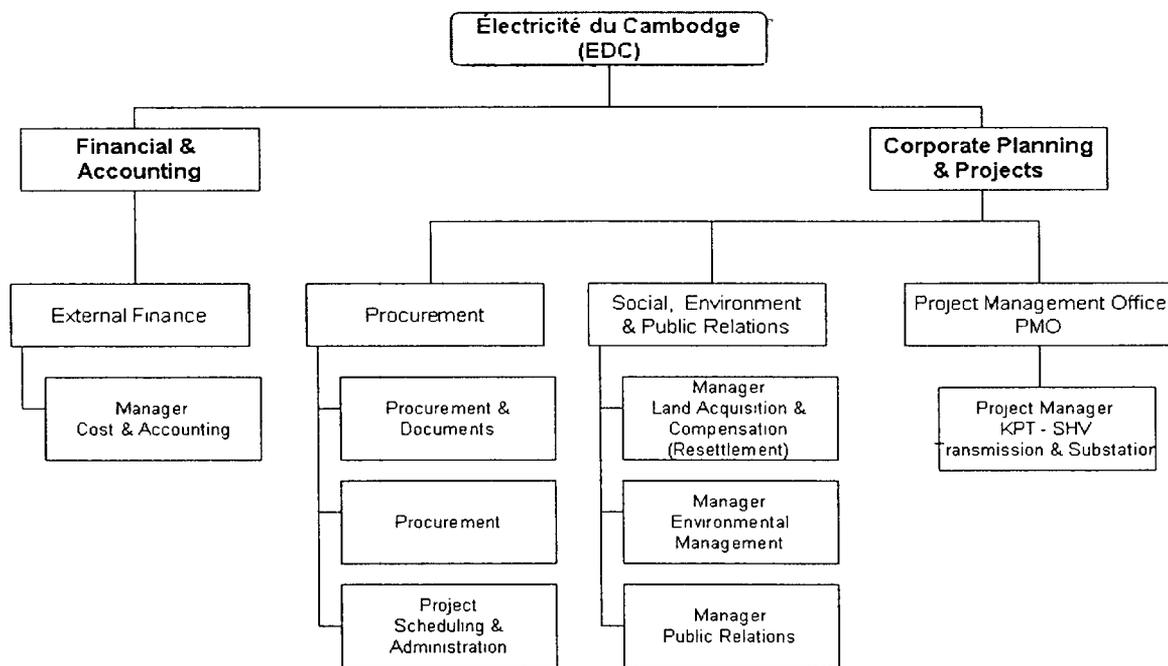


Figure 6.2: Overall Project Management Organization



IX. IMPLEMENTATION SCHEDULE

The implementation of the resettlement and compensation actions and environmental requirements shall be part of the overall implementation of the project. The process for implementation of resettlement and compensation activities includes the following steps:

- Formation of IRC for the project
- Appointment of staff, consultants and contractors
- Develop training plan for capacity development in the implementing agency and the IMO and other relevant organizations.
- Appointment of IMO.
- Formation of a Grievance Committee for the project. This would include representation from the IMPO and affected communities.
- Confirmation of project effects based on the detailed engineering survey, detailed construction plan to be carried out. In this phase, review the transmission line alignment and design to further reduce the impact, particularly in regard to the need to remove house.
 - Preparation of Construction of EMP by the Design and Construction Contractor, detailing how the Contractor will achieve the requirements of the RP and environmental requirements. This shall address the specific project design and construction details of the project.
 - The Construction EMP shall be forwarded to the Bank prior to its implementation.
- Carry out final survey and prepare revised inventory of PAPs based on the detailed engineering survey, design and construction plan.
- Declaration of Cut-off-Date for inventory of PAPs. After this time no further people will be accepted onto the list of PAPs unless they can demonstrate that they were inadvertently missed in the surveys and are genuine.
- Carry out further community consultation in conjunction with the preparation of the revised inventory of PAPs.
- Revise and finalize the RP.
- Formal process for acquisition of ROW and land. This is based partly on experience in the construction of the 115 kV transmission line around Phnom Penh, as there is currently no general procedure for land acquisition for public project in Cambodia. This should be reviewed prior to implementation if there is any national procedure issued in the meantime.
 - Carry out liaison with PAPs including informing them in person and in writing about the project, effects and compensation and other entitlements and monitoring and grievance procedures. This could be done in conjunction with the final survey and preparation of revised inventory of PAPs described above.
 - Carry out negotiation and agreement of compensation entitlements with PAPs. These activities will include involvement of the IMO. Due to the high rate of illiteracy in rural Cambodia it needs to be ensured that PAPs understand the process.
 - For the majority of the transmission line route, the effects are limited to tree removal and temporary construction impacts on cropland. Here it is necessary

to acquire land or remove structures. It is only necessary to establish a ROW for the purpose of constructing and maintaining the line and preventing trees and structures from being built under the line. The steps are as follows:

- Notify PAPs of the project, effects and compensation and other entitlements and monitoring and grievance procedures, as described above.
 - Due to the large number of people and the minor nature of the effects for this category, negotiations about compensation rates would be limited, as they would be set in consultation with the IMO to ensure the pre-project living standards are maintained.
 - PAPs may appeal against the offer of compensation, within 30 days. If there is an appeal, then negotiation shall be carried out, with IMO as observer. If compensation value cannot be agreed by negotiation then an independent mediator shall be appointed to make a determination. The selection of the independent mediator is to be acceptable to the IMO.
- Voluntary Acquisition Process:
 - Issue a formal Notice of Intention (NoI) to acquire land or remove and replace houses or other property. This will be delivered to PAPs as part of the consultation activities described above, and include communication in person and in writing.
 - Allow 30 days for affected people to seek further information about the project, land acquisition and their entitlements. Land can be acquired by voluntary agreement in this time, based as a minimum on replacement cost at the current market value.
 - Allow a further 30 days in which PAPs may object to the proposal. Land can be acquired by voluntary agreement in this time.
 - Allow a further 30 days for land to be acquired by voluntary agreement. After this time, institute compulsory acquisition procedures.
 - During the above voluntary acquisition process, negotiations will be carried out which will include the IMO as observer.
 - When land is acquired by voluntary agreement then the compensation package is to be delivered within 14 days.
 - Compulsory Acquisition Process:
 - This process can commence from 90 days after NoI to acquire land or relocate houses or other property.
 - Issue a formal Notice of Acquisition (NoA) that land is to be compulsorily acquired or houses or other property relocated. This will include the Offer of Compensation (OoC), which will be determined in consultation with the IMO to ensure the compensation package is sufficient to enable the PAPs to regain their pre-project standards in accordance with World Bank requirements. This will be communicated to PAPs in person and writing.
 - PAPs may appeal against the offer of compensation, within 30 days. If there is an appeal, then negotiation shall be carried out, with IMO as observer. If compensation value cannot be agreed by negotiation then

an independent mediator shall be appointed to make a determination. The selection of the independent mediator shall be acceptable to the IMO.

- Acquisition of replacement land to compensate for land acquired for substations and for houses to be moved from the ROW.
- Provision of monetary compensation where applicable: for small area of land (less than 20% of land holding), crop losses, and other allowances. This shall be monitored by the IMO.
- Construction of replacement houses and associated infrastructure. Two months notice shall be given to people prior to commencement and three months allowed for construction.
- Relocation of people to replacement houses. Two months to be allowed for this.
- Follow up monitoring by the IMO to ensure objectives met.

The schedule for implementation of resettlement and compensation activities and environmental requirements is tied to the implementation schedule for the Project as a whole.



X. MONITORING AND EVALUATION

Implementation of the RAP will be regularly supervised and monitored by the EDC through its PMO. Overall supervision and internal monitoring of RP implementation will be carried out by the Design and Construction Contractor initially and then with the Project Implementation Consultant, with day to day supervision the responsibility of the RP/Environmental Coordinator (RPEC), who will report to both and will work day to day in close conjunction with the 'IRC Resettlement Working Group' from PMO, local authorities, and the representative from IRC. For external monitoring an Independent Monitoring Organization (IMO) will be contracted. The contracted IMO will establish contact with local authority sub-committees in each District for external monitoring of RAP implementation. Key stakeholders, represented by APs, and vulnerable groups as members of the contracted IMO, will be involved in the process. Both internal and external monitoring will be important for providing feedback of monitoring findings to management to take necessary action.

10.1. Internal Monitoring

The objective of the internal monitoring and supervision is to (i) verify 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 policies of World Bank and the RP, (ii) oversee that the RAP is implemented as designed and approved, and (iii) verify that funds for implementation of the RAP are provided by the Provided by the Project authorities in a timely manner and in amounts sufficient for their purposes, and that such funds are used in accordance with the provisions of the RAP. The RPEC will, with his/her domestic counterpart

10.2. Monitoring Indicators

The main indicators that will be monitored regularly are:

- The PAP's entitlements 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 PAPs in the various categories according to the level of compensation described in the RAP.
- Public information and public consultation and grievance procedures are followed as described in the RAP
- Relocation and payment of subsistence and shifting allowances are made in timely manner
- Restoration of public facilities and infrastructure affected by the Project
- Job creation, as feasible (number of persons who need job provision and number who have found job)

- Linkage of satisfactory completion of compensation and resettlement and clearance of all encumbrances and commencement of civil works.

All monitoring data shall be disaggregated by gender

10.3. Staff for Conducting Internal Monitoring

The PMO staff will be responsible for internal monitoring activities. They will collect information from the respective commune regularly. Based on this data collection, they will maintain a database of resettlement monitoring information in the PIU, which will be successively updated every month, under close supervision and technical assistance of the RPEC under the Project Implementation Consultant and the Resettlement Consultant and GIS and Database Consultant.

IRC will be responsible for monitoring timely and accurate disbursement of funds to Provincial Governors and PAPs.

10.4. External Monitoring and Evaluation

An Independent Monitoring Organization (IMO) shall be appointed to monitor the resettlement and compensation process and implementation of environmental requirements to verify that compensation, resettlement and rehabilitation have been implemented in accordance with the agreed RAP. The IMO will also be involved in the complaints and grievance procedures to ensure concerns raised by PAPs are addressed.

It is important that the IMO chosen for this has a good relationship with the government. At the same time it needs to be able to maintain a strong independent position and provide constructive feedback to the project, to ensure the objectives are met. The IMO must also have good local knowledge of people in the project area and have, or be able to provide, representation at the local level. Provision shall be made in the project for further capacity building for the IMO, and strengthening ties between the government and NGO sectors. The IMO will be under the budget of the RP, who will hire the IMO and to whom the IMO will directly report, through the IRC and World Bank.

10.5. Post Implementation Evaluation Study

Six months or one year after the end of resettlement activities, the IMO shall conduct an evaluation study of severely affected PAPs (house relocation and substation land) and the vulnerable groups among the affected population 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 will be based on the follow up socio-economic survey to determine the impact of the Project on PAP income levels and living standards of those severely affected by the Project. This survey will be conducted following the same methodology as adopted for the inventory preparation. The survey data thus collected will be compared with the baseline survey information that has been collected during the preparation

of the RAP. All data for the evaluation study will be disaggregated by gender. The evaluation will look at whether the displaced and vulnerable household living standards are getting better or worse as a result of the Project. Then the IMO will propose appropriate additional assistance that may be necessary to achieve the stated objectives.

The IRC will have focal persons in each district to be accessible to PAPs for hearing and assisting with grievances and participating on GRCs.

10.6. Monitoring and Evaluation Reports

10.6.1. Monitoring Reports

The outputs of the RP monitoring will include:

A brief methodological Inception Report submitted to the IRC, PMO and a copy to World Bank within one month of beginning the assignment and

Final Monitoring Reports submitted to the IRC, PMO with copies to World Bank within 2 weeks of the monitoring period.

10.6.2. Evaluation Report

The output of the evaluation study will be in the form of a brief report. The draft report will be submitted to the IRC, Project Implementation Consultant and to PMO with copies to World Bank for review within 3 months from the date of the evaluation initiation. The reports will be revised and finalized taking into consideration the comments and suggestions by World Bank.

10.7. Disclosure

World Bank requires that the Executing Agency(EdC) disseminate information to the PAPs. Public disclosure of RAP, through distribution of Public Information Booklets describing the most important sections of the RAP, in Khmer, will be required before Appraisal. Public disclosure of the draft RAP must be made to the PAPs in a form and language that they can understand. This may be in the form of a resettlement information brochure or leaflet, or a summary resettlement plan to be provided to PAPs in a language they can understand, in an accessible place. The final RAP, if changed, must be made available to the PAPs before the Staff Review Committee (SRC)



List of Questionairs
(Kampong Cham Substation)

No.	Questions
1	Price of Land
2	Owner of Land
3	Name of Owner
4	Land Use and Type of House
5	Number of Household
6	Household Condition
7	Number of Tree
8	Distance from the National Road
9	Location of the Substation
10	House affected in the substation site
11	Income of the household
12	Average house space
13	Average house plot
14	Average farm land holding





Kingdom of Cambodia
Nation Religion King

Ministry of Economic and Finance
Inter-ministerial Committee

Estimated Expense for Resettlement Plan Implementation Project
From Kratie-Stung Treng to Laos- Cambodia Border

No.	Description	Unit Cost	Estimated Cost		Other
			Unit	Cost	
1. Allowance					
	Affected by the Project	40.00	139	5,560.00	
	Totally Affected	40.00	88	3,520.00	
	Head of the household is widow	20.00	5	100.00	
	Head of the household is disable	20.00	-	800.00	
	Household earn less than \$10/month	20.00	40	-	
	Lonely and Old household	20.00	-	-	
Total 1				9,980.00	
2. Property					
	house type 1	4.50	2,057.60	9,259.20	
	house type 2	12.00	3,322.83	39,873.96	
	house type 3	85.00	-	-	
	house type 4	140.00	-	-	
	Stall	40.00	7.00	280.00	
	Wooden Material Storage	4.50	50.40	226.80	
	Concrete Material Storage	12.00	61.42	737.04	
	Wooden Bridge, Wooden ladder	4.86	82.90	402.89	
	Other				
Total				50,779.89	
	Gas station	3000.00	-	-	
	Dig well	50.00	1.00	50.00	
	Pump well	75.00	8.00	600.00	
	Pond	-	-	-	
	Grave	50.00	-	-	
	Funeral Monument	2000.00	-	-	
	Other	-	-	-	
Total				650.00	
Total 2				51,429.89	
3. Land					

	Agriculture Land 1	2.00			
	Agriculture Land 2	1.00			
	Agriculture Land 3	0.50			
	Residential Land 1	2.00	2,222.81	4,445.62	
	Residential Land 2	1.00	1,473.66	1,473.66	
Total 3				5.919.28	
4.Tree					
	Mango	25.00	-	-	
	Coconut	15.00	2	30.00	
	Palm Tree	8.00	-	-	
	Bamboo	5.00	-	-	
	Jake Tree	10.00	3	30.00	
	Granate	3.00	-	-	
	Other	5.00	1	5.00	
Total 4				65.00	
5. Operation Cost					
Total 1+2+3+4				67.394.17	
Contigency 20%				13.478.83	
Total				80.873.01	

Seen & Checked
Kratie Sub-Group Leader

Kratie, January 20, 2005
List Maker

Meas Nara