QUANG NINH PROVINCIAL PEOPLE’S COMMITTEE
DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT


SOCIAL IMPACT ASSESSMENT

SUBPROJECT: REPAIR AND UPGRADING FOR THE SAFETY
OF KHE CHE RESERVOIR - QUANG NINH PROVINCE

Quang Ninh, 19 June 2015
PREAMBLE

The Social Impact Assessment (SA) has been developed as a tool for planners to understand how people have impacts and will be affected by the development activities. The SA is carried out to identify key stakeholders and establish a suitable framework for their participation in the selection, design, implementation, monitoring and evaluation of the Project. The SA is to ensure that the objectives and motivation for changes can be accepted by the majority of people, who are expected to be beneficiaries from the Project, to promptly identify the existence of the project as well as risks that may occur. A number of issues need to studied in the SA include: (i) the impacts of the project on different groups, especially women and vulnerable groups; (ii) the plans to mitigate adverse impacts of the Project; (iii) the social risks that may affect the success of the Project; (iv) the necessary organizational arrangements for the participation and the Project allocation; There are adequate plans for capacity building required at the respective levels or not.

The SA of the Project was carried out by the Institute for Hydro Power and Renewable Energy with the support of the Department of Agriculture and Rural Development of Quang Ninh province, Central PPMU No.2, DPCs and CPCs involved in the Project.

This report is called Social Impact Assessment Report (SA) for the Repair and Upgrading for the Safety of Khe Che Reservoir Subproject in Quang Ninh Province (DRaSIP/WB8). This is considered as a standard document in accordance with the requirements and procedures of the World Bank. The report provides information and results of the social impact assessment of the project for the preparation of safety policy documents such as Environmental and Social Management Framework (ESMF) and Resettlement Action Plan (RAP) of the project.
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## Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>AP</td>
<td>Affected Person</td>
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<td>CPO</td>
<td>Central Project Office</td>
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<td>DARD</td>
<td>Department of Agriculture and Rural Development</td>
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<td>DMS</td>
<td>Detailed Measurement Survey</td>
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<td>DPC</td>
<td>District People's Committee</td>
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<td>DRC</td>
<td>District Resettlement Committee</td>
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<td>EMPF</td>
<td>Ethnic Minorities Policy Framework</td>
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<tr>
<td>EMDP</td>
<td>Ethnic Minorities Development Plan</td>
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<td>ESMF</td>
<td>Environmental and Social Management Framework</td>
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<td>GOV</td>
<td>Government of Vietnam</td>
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<td>HH</td>
<td>Household</td>
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<td>IOL</td>
<td>Inventory of Losses</td>
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<td>IMA</td>
<td>Independent Monitoring Agency</td>
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<td>RP</td>
<td>Re-settlement Plan</td>
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<td>LAR</td>
<td>Land Acquisition and Resettlement</td>
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<td>LURC</td>
<td>Land Use Right Certificate</td>
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<td>MOF</td>
<td>Ministry of Finance</td>
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<td>MOLISA</td>
<td>Ministry of Labors – Invalids and Social Affairs</td>
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<tr>
<td>NGO</td>
<td>Non-government Organization</td>
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<tr>
<td>OP</td>
<td>Operating Policy</td>
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<tr>
<td>PAD</td>
<td>Project Appraisal Documents</td>
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<tr>
<td>PPC</td>
<td>Provincial People’s Committee</td>
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<td>PPMU</td>
<td>Provincial Project Management Unit</td>
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<tr>
<td>PRA</td>
<td>Participatory Rapid Assessment</td>
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<td>REA</td>
<td>Rapid Environment Assessment</td>
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<tr>
<td>RP</td>
<td>Resettlement Plan</td>
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<td>RPF</td>
<td>Resettlement Policy Framework</td>
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<td>TOR</td>
<td>Terms of Reference</td>
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<td>USD</td>
<td>United States Dollar</td>
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<tr>
<td>VND</td>
<td>Vietnamese Dong</td>
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<tr>
<td>SES</td>
<td>Socio-Economic Survey</td>
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<td>WB</td>
<td>World Bank</td>
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EXECUTIVE SUMMARY

The Dam Repair and Safety Improvement Project (DRaSIP) is implemented on the basis of the MOARD’s proposal submitted to the WB in order to support the implementation of dam safety program of the Government through to improve the safety of prioritized dams and reservoirs as well as protecting human beings and properties of communities in lowlands. The project is expected to be implemented in the period of 2015 - 2020, including 04 investment items in 31 provinces.

The SA report presents the economic survey results of surveyed households for the Repair and Upgrading for the safety of Khe Che Reservoir Subproject in Quang Ninh Province.

Content of the report

The report collects all the survey results, including nine parts: Part 1, Introduction; Part 2, Research Methodologies; Part 3, Socio-Economic features of project area; Part 4, Potentially positive impacts; Part 5, Potentially negative impacts; Part 6, Mitigation measures; Part 7, Roles of stakeholders; Part 8, Conclusions & recommendations; and Part 9, Appendices.

Approaching method

From the approaches to livelihood resources of households, the survey analyzes the socio-economic characteristics of surveyed households according to the human and capital resources (demographic and labor, education, occupation, health), natural resources capital (productive land: agricultural land, forest land and aquatic land, land use rights), physical capital (housing, property for living, property for production and business), financial capital (income, changes in living standards, poverty, loan), and social capital (community relations, relatives, authorities and their support) and consideration of the impact factors including potential impacts of the Project. These resources have been analyzed in an integration of elements such as gender, ethnic minorities and vulnerability.

Socio-economic characteristics of the project area

The average number of members in surveyed household in the the project area is 3.4, which is much lower than that of the country of 3.89 (Statistical Yearbook, 2013). Communes, ethnic groups, income groups, female-headed households and male-headed households do not have difference in the number of inhabitants per household.

Among the occupational structures of family members having jobs and income in the project area survey, agro-forestry-fishery sector accounts for 65.6% as the highest; pupils, students have the percentage of 12.5% as the second rank; remaining are staff-officers, employees, workers with the percentage of less than 10% for each category; people doing business/services, and housewives are particularly low of less than 6%, particularly handicraft is not included in the structure of surveyed communes (Refer to Table 2, Appendix 1). Thus, agro-forestry-fishery sector is a key sector in the project area where most of workforce gathers.
About 95.0% of the project population graduated from elementary schools to colleges/universities or higher, in which more than 60% people who graduated from junior high schools and high schools. Only 18.3% people graduated from colleges/universities or higher. The illiteracy rate is 0.1% and the preschool rate in the communes in the project area is 5%, which is higher than the national average as stated in the Statistical Yearbook 2013. There is no significant difference in those rates among surveyed communes.

18.7% of the surveyed households were ill last month (Refer to Table 7, Appendix 1). This is a relatively low index, which indicates the health of the people in the project area is well cared for in accordance with better medical conditions. In which there are no large differences in sickness among surveyed communes as well as between rich and poor income groups.

In surveyed area, agriculture is the main production activities, the basic livelihood of the people, so that land is the main production resource of farmers. Of which, 99.5% HH have residential land, 95.1% HHs have paddy land, 59.2% HHs have land for vegetables, 13.3% of HH have land to plant industrial trees and 15.3% of HHs have ponds and water surface.

The majority of surveyed households in the project area use tap-water (95 %) for bathing and daily activities, the usage of other water sources is low: No HHs use water from ponds, lakes, rivers (1.4%). 1.0% use water from wells.

As for the domestic water useage, drinking water in the surveyed communes is mainly from tap water at the rate of 98%, only 2% of people use dug well water for drinking and cooking.

94.6% of HHs use proper latrines, 66.1% of which has septic/semi-septic latrines, 28.5 of which uses two compartment latrines. There are ¼ (3.7%) of HHs remaining useing simple latrines and 1.2% of HHs do not have latrines.

In the project areas, the middle income group and above occupy a large rate (43.5% and 33.8%) and especially the poverty rate in surveyed commune decreases significantly to 2.5%.

Positive and Negative Impacts of the Project and mitigation measures

The demand of all provinces in the country not only Quang Ninh province for renovation, upgrading of lake and dam system is very high. If the project is implemented effectively in the coming years, shown in the sufficient supply of water production, over a third of the surveyed households in the project area plan their production.

Positive Impacts

Agricultural production will increase. Therefore, the demand for rice and vegetable crops will increase. On the other hand, the increase in rice output will increase the pressure to solve the post-
harvest problems such as processing, preservation as well as consumption organization in order that farmers can benefit more in the chain value of rice plant.

When the project is formed, it will cause social impacts: The rise and transformation of economic activities provided that the project provided enough water for production needs, it can create more jobs, especially for hired groups, reducing idle time and contributing to poverty reduction.

Increase productivity and agricultural output and seasons, develop aquaculture through the expansion of irrigated area, reduce disaster risks; increase production and non-agricultural business resulted from agriculture development, increase income and improve living standards; create more jobs, especially for the hired groups working as their main jobs or part-time jobs, shorten harvest time and contribute to poverty reduction. These positive effects bring benefits to the majority of disadvantaged groups. Those who have production land are benefited directly the most by irrigation. The supply of adequate water will serve the economic development of the project area.

The sub-project will contribute to enhancing capacity and awareness of the community in responding to natural disaster and dam unsafety.

**Negative Impacts**

Recover affected land which is temporarily managed by the CPC, there may be conflicts in water usage; increase in fertilizer and insecticide usage; health risks and impacts on ethnic minorities. These impacts should be considered and mitigated during the implementation of the project.

Increase in production and agricultural productivity and increase in chemical fertilizer and insecticide usage also which may cause environmental pollution.

**Mitigation measures**

Consult relevant parties
Set up Resettlement Action Plan (RAP)
Well perform those plans for community health management, communication, community health consultation and gender action plan;
Publicise information, explanation responsibilities and supervision in order to mitigate the conflicts which may arise and other risks, improve investment efficiency and social significance of the project.

**Project Owner:** Irrigation Construction and Investment Management Unit No. 2
PART I: OVERVIEW

1.1. Sub-project introduction
Via Central Project Office under the Ministry of Agriculture and Rural Development (MARD), the Government of Vietnam (the Government) is looking for fund financed by the WB to support the Project named as Dam Rehabilitation and Safety Project (DRSP) for improvement of dams. A list of 31 provinces has been proposed, in which the Feasibility Study and Social and Environmental Impact Assessment have been prepared for 12 sub-projects selected in the first year. And the Repair and Upgrading for the safety of Khe Che Reservoir Subproject in Quang Ninh Province is one of them.

Objectives of the Project
The project aims at providing support for the implementation of Dam National Safety Program through improving and reinforcing safety dams and reservoirs as well as protecting assets of the communities living at the downstream of dams and reservoirs.

1.2. Sub-project components
The Project’s activities will be carried out through four components:

Component 1: Dam Safety Rehabilitation (Expected cost of US$385 million)
This component will improve dam safety through physical rehabilitation of existing infrastructure, including: (i) Detailed design, supervision and quality control of rehabilitation works for prioritized dams and associated infrastructure; (ii) rehabilitation works, including civil works, hydro-mechanical works and installation of hydrological and safety monitoring equipment; (iii) preparation of Operation and Maintenance Plans and Emergency Preparedness Plans.

Component 2: Dam Safety Management and planning (Expected cost of US$ 60 million)
This component will improve the planning and operational framework for dam management to safeguard the people and socio-economic infrastructure within downstream communities. This would include provision of support to: (i) hydrological observation network and information systems; (ii) integrated development planning and operational coordination mechanisms; (iii) regulatory and institutional support and strengthening on coordination mechanism; and (iv) capacity enhancement, basin-wide integrated dam reservoir operation plans, emergency preparedness plan. This component will support the Ministry of Agriculture and Rural Development, Ministry of Industry and Trade, Ministry of Natural Resources and Environment in the implementation of technical support for national programs, completion of coordination mechanisms between ministries, local authorities and stakeholders.

Component 3: Project Management Support (Expected cost of US$ 15 million)
The project was implemented with the participation of three Ministries and 31 provinces. The majority of dams located in the remote mountainous areas with very difficult traffic conditions. Project duration is six years; the allocation of limited management cost is also a difficulty in implementing the project.

The component will provide finance for the project management, monitoring and evaluation, technical assistance, procurement, auditing, information, training, equipment support in project management and implementation.

**Component 4: Disaster Contingency (US$ 0 million - no fixed allocation)**

This component will improve the response capacity of the Government in case of an emergency relating to dam failure during project implementation. In the event of an emergency, this contingency component would facilitate rapid utilization of loan proceeds by minimizing the number of processing steps and modifying fiduciary and safeguard requirements so as to support rapid implementation

1.3. **Overview of subproject**

Khe Che reservoir is located in An Sinh commune, Dong Trieu district, Quang Ninh province. This reservoir was built in 1986 with the latest reparation and upgrading of some works of terminal system in 1995-1998. So far the reservoir has been operating for 20 years. Its basin area is 22.4 km² and capable of 106m³ -- 20x106m³. The main and auxiliary construction works of Khe Che reservoir include the following items:

- **Dam:** is built with homogeneous soil of 4.2 m in height and 658 m in length. The dam top is layered with construction stone topped by grave stones for damp surface protection;
- **Water intake culvert:** located at the right shoulder of the dam and built with reinforced concrete. It is the box culvert with control valve tower in the upstream. The culvert tower house has wood doors and windows;
- **Flood spillway:** its width is Btr = 24 m; spill height is 23.68 m; reinforced concrete structure with solid frame pressing on flexible foundation, foundation index ks=30000 T/m³.
- **Service road:** The end of the service road leading to the damp surface is soil road, the work on this way is only the bridge through the channel. Passing the damp surface, the road is connected to residential road around the lake. The road is 139.56 m long, 5 m wide and rather slope.
- **Management building:** The building is built as a one-storey flat roof with spacious campus, located behind intake culvert below the downstream dam.

**The activities of the Subproject:** Supplement rooftop drainage system of downstream dam, expand drainage channel leading water from dam roof into intake culvert under the dam, replace doors, treat local erosion; replace tower door of the water intake culvert; expand spillway and build bridge over the spillway; and upgrade the service road.
Objective of the subproject:
The main objectives of the upgrading and enhancement of safety for the dam and reservoir are: (i) Ensure the safety of Khe Che reservoir; (ii) ensure safety and production demands, local people’s living of downstream of Khe Che reservoir including the communes of An Sinh, Tan Viet and Viet Dan; (iii) ensure dam safety and the initial design that may afford the stable watering for 1,000 ha of agricultural land and raw water for more than 3000 HHs; and (iv) solidify surface dams, roads to the dam and build bridge across the channel, improve the tower, and management house, effectively promote the benefits of Khe Che water reservoir; (v) improve the environmental landscape, creating the infrastructure to serve the socio-economic development of the project area.

The Subproject Location:
The structures under the subproject will be implemented in Ba Xa village, An Sinh commune, Dong Trieu District, Quang Ninh province, which are illustrated in the map below.

Figure 2.1: Location Map of the Subproject
Part II: Objectives and Methodology of SA

The purpose of this social assessment (SA), conducted in an integral manner with environmental assessment for this subproject, is two-fold. First, it examined the potential impacts of the subproject positive and adverse impact on the basis of planned project activities. Second, its findings inform the design of measures addressing identified potential adverse impact and proposing community development activities that are relevant to the project development goal. For identified adverse impact that could not be avoided, consultation with local people, governmental agencies, project stakeholders, etc., were carried out to ensure affected peoples will be appropriately compensated for, and supported in a manner that their socioeconomic activities will be promptly and fully restored to the pre-project level, at least, and that their livelihoods will not be worsened off, in the long run, as a result of the subproject.

As part of the social assessment, where ethnic minority (EM) peoples are present in the subproject area as confirmed by the EM screening (as per Bank’s OP 4.10), consultation with them were carried out in a free, prior, and informed manner, to confirm if there is broad community support from affected EM peoples for the subproject implementation. EM screening was conducted as per Bank’s OP 4.10, and was done the scope and coverage of the social assessment vis-à-vis the environmental assessment (OP 4.01). A gender analysis was also done as part of the SA to understand underlying gender dimensions (from project impact perspective) to enable gender mainstreaming to promote gender equality, and enhance further the development effectiveness of the subproject, and the project as a whole. Depending on the magnitude of the identified potential project impact, and the project development objective, a gender action plan and gender monitoring plan were prepared (please see these plans in the Appendix 4 of this SA).

To ensure all potential impact could be identified during project preparation, the SA was conducted through series of consultations with various project stakeholders. A particular focus was maintained on households who are potentially affected (both positively and adversely). The research techniques employed for this SA include 1) review of secondary data, 2) field observations; 3) focus groups discussions/community meetings, 4) key informant interview, and 5) households survey (Please see Appendix 1 for how the Sampling Frame). A total of 165 of respondents participated in the SA exercise for this subproject, of which 127 people participated in the households survey (quantitative), and 29 people participate in focus groups discussions, community meetings, key informant interview (qualitative).

In Section 3, we will present the findings of the SA (positive and positive impact), including the result of the gender analysis. In section 4, we will present briefly the SA results, along with the recommendations on the basis of the SA findings. Please note that a gender action plan and gender monitoring plan are presented at Appendix 4 of this SA, and the public health intervention plan and public consultation and communication plan were presented at Appendix 2 and 3, respectively).
Part III: Socio-economic conditions in the sub-project area

3.1. Quang Ninh’s socio-economic overview

Quang Ninh is a province in the northern end of Vietnam, with a rectangular shape lying along the northeast - southwest. Leaning against the mountains in the west, the East inclines to the first half of North Bay with the stretching coast and more than 2,000 small and big islands.

Dong Trieu is located on Highway 18A, about 90 km from Hanoi, 80 km from Ha Long Bay, it is the West gateway of Quang Ninh province. It borders Son Dong and Luc Nam districts of Bac Giang province to the north, Chi Linh town of Hai Duong in the West, Thuy Nguyen district of Hai Phong city to the South, and Uong Bi city in the East. Dong Trieu has 21 administrative units: 2 towns and 19 communes.

An Sinh is a mountainous commune of Dong Trieu district, adjacent to Binh Khe and Trang An communes in the East; Hoang Tien commune of Chi Linh town, Hai Duong province in the West; Binh Duong, Viet Dan, Tan Viet and Duc Chinh communes in the South; and Bac Giang province in the North. The commune which is located 8km from Dong Trieu town, has 17 villages, with scattered population, and the most remote village situated 14km from the town center.

3.1.1. Population and labour

Quang Ninh’s current population is about 1 million people; the natural population growth rate of 1.66%. Quang Ninh has 22 ethnic groups living together, but only 6 ethnics have more than thousands of inhabitants living, forming the community and own language and culture as Kinh, Dao, Tay, San Diu, San Chi, and Chinese.

As of 2014, the population of the province was 1,377,200 people, of which 607,350 is male (50.05%) and 557,000 is females (49.95%). The population distribution in rural areas was 787,000, accounting for 55.78%, while 630,200 people in urban areas accounting for 45.22%. The population density per capita is 193 person/km2.

Population of working age by the end of 2013 was 579,076 people, accounting for 66.16% of the total population. Labor was mainly farmers, accounting for 78.04%, only 21.96% working in industry and other sectors.

3.1.2. Poverty and hunger

According to the poverty classification criteria issued by Ministry of Labour, Invalids and Social Affairs, and the provincial guidelines for assessing the poverty, by the end of 2014 there was 2.5%
of total population in Quang Ninh at poverty level (down by 4.84 % compared with 2013). Poor households rely on a rice crop a year of just rice or corn. They do not have capital to raise husbandry.

3.1.3. Healthcare and Education

Currently, Quang Ninh has 421 secondary schools, including 46 secondary schools, 146 junior secondary schools, 177 elementary schools, and 205 kindergartens.

In 2014, Quang Ninh has 20,861 professionally trained teachers. 100% of preschool teachers, 100%, primary school teachers, 97.4% junior secondary teachers, and 100% of secondary school teachers have been standardized by the State level.

Quang Ninh system of infrastructure, health sector investment meet the health care needs of the people. The province has 15 hospitals, 09 regional polyclinics, 10 provincial health centers, 14 health centers and 186 health centers at commune and ward levels.

3.2 Results of the Survey

Through the approaches to the livelihood resources of households, this section will make an analysis of the socio-economic characteristics of surveyed households according to the human resources (demographic and labor, education, occupation, health), natural capital (productive land: agricultural land, forest land and aquatic land, land use), physical capital (housing, property for living, property for production and business), financial capital (income, changes in living standards, poverty, loans), and social capital (community relations, relatives, authorities and their support) and consider the impact factors including the potential impacts of the project. These resources have been analyzed with the integration with elements such as gender, ethnic minorities and vulnerability.

3.2.1 Demographics

The average number of household members in the survey sample in the project area is 3.4, lower than the national average demographics in households, which is 3.89 (Statistical Yearbook, 2013). There are no difference in the number of inhabitants per household between communes, ethnic groups, income groups, female-headed households and male-headed households.

In terms of ethnic minorities, the average scale of an ethnic minority is 3.4 persons and that of Kinh group is 3.3 persons. By gender of head of household, number of female-headed households is less people than its of male-headed households (respectively 3.3 compared with 3.4) (Pls refer to Table 1)
Table 1: Demography and average laborers per household

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<tr>
<th>Demography</th>
<th>HH structure by scale of Demography (%)</th>
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<tr>
<td></td>
<td>Average in HHs</td>
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<tr>
<td><strong>Total sample</strong></td>
<td>3.4</td>
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<td><strong>By commune/Ward</strong></td>
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<tr>
<td>An Sinh ward</td>
<td>3.5</td>
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<td>Tan Viet ward</td>
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<tr>
<td>Viet Dan ward</td>
<td>3.5</td>
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<td><strong>By ethnic minorities</strong></td>
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<tr>
<td>+ Kinh</td>
<td>3.3</td>
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<tr>
<td>+ Ethnic minority</td>
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<tr>
<td><strong>By HH gender</strong></td>
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<td>+ Male Headed households</td>
<td>3.4</td>
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<tr>
<td>+ Female Headed households</td>
<td>3.3</td>
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<td><strong>By income group</strong></td>
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<td>Group 1 (the poorest)</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td></td>
</tr>
<tr>
<td>Group 4</td>
<td></td>
</tr>
<tr>
<td>Group 5 (The richest)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey Data

By income groups, it is noted that the HH size of 3-4 persons is quite similar in all income groups. This has shown that nuclear HHs are popular, which explains the better household development compared to other sub-project area (Chart 1).
The analysis of the household structure by demographic scale in the project area showed a majority of households has 3-4 person (47.0%) and 4-5 persons (24.8%); 1-2 person (28.2%) and there is no HHs of 9 people or more. If small family size with a few children is universal as recognition in Vietnam today, this survey shows that the nuclear family model accounts for around 80%.

Thus, the survey data shows that the model of few member family and nuclear family occupies higher percentage indicating that the development of the project area is higher than other communes in the province.

3.2.2 Occupation

Among the occupational structures of family members having jobs and income in the project area survey, agro-forestry-fishery sector accounts for 65.6% as the highest; pupils, students have the percentage of 12.5% as the second rank; remaining are staff-officers, employees, workers with the percentage of less than 10% for each category; people doing business/services, and housewives are particularly low of less than 1.4%; handicraft is not included in the struture (see Table 2, Appendix 1). Thus, the agriculture-forestry-fishery is the dominant sector in the economy - society of the project area, where the majority of the workforce lives.
Table 2: Main occupation of laborers
(including all member of HHs involved in labor force)

<table>
<thead>
<tr>
<th></th>
<th>Labor health loss</th>
<th>Agriculture forestry and fishery</th>
<th>Trade and services</th>
<th>Officials and employees</th>
<th>Pupils and students</th>
<th>Handicraft</th>
<th>Hired</th>
<th>Jobless</th>
<th>Not suitable</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total samples</strong></td>
<td>2.2</td>
<td>65.6</td>
<td>6.3</td>
<td>6.5</td>
<td>12.5</td>
<td>0.0</td>
<td>4.9</td>
<td>2.0</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>By communes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An Sinh ward</td>
<td>2.2</td>
<td>66.0</td>
<td>6.5</td>
<td>6.5</td>
<td>11.5</td>
<td>0.0</td>
<td>5.2</td>
<td>0.0</td>
<td>2.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>0</td>
<td>64.0</td>
<td>6.2</td>
<td>6.2</td>
<td>12.0</td>
<td>0.0</td>
<td>4.7</td>
<td>5.4</td>
<td>0.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Viet Dan ward</td>
<td>1.5</td>
<td>65.5</td>
<td>6.2</td>
<td>6.5</td>
<td>12.5</td>
<td>0.0</td>
<td>5.2</td>
<td>1.5</td>
<td>1.1</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>By ethnic minorities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Kinh</td>
<td>1.5</td>
<td>65.5</td>
<td>6.5</td>
<td>6.5</td>
<td>12.0</td>
<td>0.0</td>
<td>5.0</td>
<td>2.05</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>+ Ethnic minority</td>
<td>2.0</td>
<td>65.0</td>
<td>4.5</td>
<td>4.5</td>
<td>9.5</td>
<td>0.0</td>
<td>10.5</td>
<td>4.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The rate of HHs which does agriculture-forestry-fishery of Kinh group is lower than ethnic minorities (65.6 % compared to 65.0%). In contrast, the rate of HHs with non-agricultural occupation of Kinh group is higher than ethnic minorities (6.5% compared to 4.5%). In terms of occupational status, the contribution to the family income at present, the survey showed that the proportion of dependents is rather high, accounting for 20%, of which a significant proportion of the unemployed and semi-unemployment. These subjects are mostly students, pupils and little/elderly people, those who lost labor and even those who are in working age with good health but donot have jobs. The project will increase the area of irrigated land, more seasonal produce in a year, diversifying outside the plantation industry (such as livestock, and professional services that use other countries); thereby increasing jobs and eliminate the present unemployment and underemployment in the project area.

**Chart 2: Occupation of householders in communes/wards**
In general, the livelihood of people living in 3 communes benefiting from the surveyed project area is mainly agriculture, commonly two rice crops and one of other crops a year. Therefore, the safety of dam and water stability for irrigation is very important for agricultural production in the residential areas, which are in a high demand of water for agriculture activities in most surveyed areas but actually it is not proactive.

The actual qualitative surveys in the project area show that in the past there were some contradictions, conflicts between farmers, inequality of water supply amount because some households have more favorable conditions in receiving more water for their land slots if they are at the upstream of the water resources. This is caused by the reservoir’s water loss. The repair and rehabilitation of reservoir will address the lack of equality of water supply for the upstream and downstream.

3.2.3. Education

About 95.0% of the project population graduated from elementary school to college/university or higher, in which more than 60% people graduated from junior high school and high school. Up to 18.3% people graduated from college/university or higher. The illiteracy rate is 0.1% and the rate of preschool people in communes of project area is 5%, which is lower than the national average as stated in the Statistical Yearbook 2013. This rate does not differ greatly between the surveyed communes.

It is noteworthy that the illiteracy rate of people in ethnic minorities is also very low, only 0.1% (this rate focuses on the elders who are more than 60 years old). According to the standard of living of MOLISA, the illiteracy rate in the poorest income group (group 1) only accounts for 0.1%.

The percentage of children at the age of 6-18 who dropped out of school is 0.2% and the majority is incapable or poorly able at studying. (Refer to Table 4, Appendix 1).
Table 3: Education level of household members (Unit %)

<table>
<thead>
<tr>
<th></th>
<th>Illiteracy</th>
<th>Primary School</th>
<th>Junior high school</th>
<th>High school</th>
<th>College/University or above</th>
<th>Not suitable</th>
<th>Preschool</th>
<th>No infor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.1</td>
<td>15.2</td>
<td>31.1</td>
<td>30.3</td>
<td>18.3</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>By commune</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An Sinh ward</td>
<td>0.1</td>
<td>15.0</td>
<td>30.2</td>
<td>34.5</td>
<td>15.2</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>0.1</td>
<td>15.5</td>
<td>30.3</td>
<td>32.1</td>
<td>17.5</td>
<td>0.0</td>
<td>4.5</td>
<td>0.0</td>
</tr>
<tr>
<td>X.Viet Dan ward</td>
<td>0.1</td>
<td>14.7</td>
<td>30.9</td>
<td>32.5</td>
<td>17.8</td>
<td>0.0</td>
<td>4.0</td>
<td>0.0</td>
</tr>
<tr>
<td>By ethnic minorities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Ethnic minority</td>
<td>0.1</td>
<td>14.5</td>
<td>47.9</td>
<td>28.9</td>
<td>0.0</td>
<td>0.0</td>
<td>8.6</td>
<td>0.0</td>
</tr>
<tr>
<td>+Kinh</td>
<td>0.1</td>
<td>15.6</td>
<td>29.5</td>
<td>31.8</td>
<td>18.0</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>By income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1 (the poorest)</td>
<td>0.1</td>
<td>16.5</td>
<td>35.5</td>
<td>37.4</td>
<td>5.5</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Group 2</td>
<td>0.1</td>
<td>15.6</td>
<td>35.5</td>
<td>31.09</td>
<td>10.0</td>
<td>0.0</td>
<td>6.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Group 3</td>
<td>0.0</td>
<td>15.0</td>
<td>34.1</td>
<td>33.4</td>
<td>12.5</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Group 4</td>
<td>0.0</td>
<td>15.0</td>
<td>35.5</td>
<td>30.5</td>
<td>15.0</td>
<td>0.0</td>
<td>4.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Group 5 (the richest)</td>
<td>0.0</td>
<td>14.5</td>
<td>23.9</td>
<td>40.6</td>
<td>18.0</td>
<td>0.0</td>
<td>3.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The reason for children to quit from school accounts for 0.2 % because they are not good at learning but are not directly related to economic reasons of HHs (see table 5 & 6, Appendix 1).

3.2.4. Health

About 18.7% of the surveyed households was ill last month (see Table 7, Appendix 1). This is a high rate and a health concerned matter of people in the project area compared to the average health and better conditions for health care now. There are no large differences in sickness among the surveyed households as well as between rich and poor income groups. In terms of ethnic group, the rate of Kinh’s illness within the last one month is lower than that of ethnic minorities (18.0% compared to 20.1%).
Table 4: Health and health care conditions

<table>
<thead>
<tr>
<th></th>
<th>With sick person in the past one month</th>
<th>With medical insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>18.7</td>
<td>90.3</td>
</tr>
<tr>
<td><strong>By commune</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An Sinh ward</td>
<td>20.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>17.5</td>
<td>89.9</td>
</tr>
<tr>
<td>Viet Dan ward</td>
<td>16.5</td>
<td>85.0</td>
</tr>
<tr>
<td><strong>By ethnic minorities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Kinh</td>
<td>18.0</td>
<td>90.0</td>
</tr>
<tr>
<td>+Ethnic minority</td>
<td>20.1</td>
<td>85.9</td>
</tr>
<tr>
<td><strong>By income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1 (the poorest)</td>
<td>18.7</td>
<td>85.0</td>
</tr>
<tr>
<td>Group 2</td>
<td>18.0</td>
<td>85.0</td>
</tr>
<tr>
<td>Group 3</td>
<td>15.8</td>
<td>90.0</td>
</tr>
<tr>
<td>Group 4</td>
<td>16.3</td>
<td>93.5</td>
</tr>
<tr>
<td>Group 5 (the richest)</td>
<td>5.2</td>
<td>95.5</td>
</tr>
</tbody>
</table>

The number of surveyed households having insurances of all kinds is relatively high, accounting for 90.3%. Notably the ethnic HHs having insurance also accounts relatively high percentage (5.9%). In particular, the health insurance rate in the highest income group is 95.5%, which is not much higher than that of the lowest group (85.0%). This shows that the local people in the project area (including lowest income HHs) all are aware of the necessity of participation in health insurance.

According to the respondents of surveyed households, there are four main reasons causing negative impacts on the health situation are listed as follows from the highest to lowest level, namely: polluted water, foods insecurity, lacking of running water and living pollution (see Chart 3).

**Chart 3: Percentage% of the causes adversely affecting to the health today**
Two out of five main causes that adversely impact on public health are water pollution and lacking of domestic water (accounting for the highest rate of 69.3%).

3.2.5 Land

In surveyed area, agriculture is the main production activities, the basic livelihood of the people, so that land is the main production resource of farmers. Of which, 99.5% HHs have residential land, 95.2% HHs have paddy land, 59.2% HHs have land for vegetables, 13.3% of HHs have land to plant industrial trees and 15.3% of HHs have ponds and water surface.

The data of land of all types of surveyed households in the project area showed that agriculture and farming are popular in the localities. Therefore, the demand for irrigation for agriculture in these regions is very high; the lack of water in 1-2 months will certainly affect the lives of local people.

By income, the two lowest income groups (group 1, 2) account for the lowest percentage of arable land types, in contrast, the HHs of higher income have higher rate of arable land types. Poor household have no pond or water surface, so they depend on agriculrual land. It is obvious that the lack of arable land is now only one of the reasons causing poverty in agriculture area, rural areas. For the purpose of reducing poverty, the stability and increasing of irrigated areas, increasing crops/season/year for the existing area as well as increasing activities of non-agricultural employment is very important.

Table 5: Kinds of land of households

<table>
<thead>
<tr>
<th>Unit %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential land</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
By commune

<table>
<thead>
<tr>
<th>Commune</th>
<th>Total samples</th>
<th>By income</th>
<th>+ Group 1 (the poorest)</th>
<th>+ Group 2</th>
<th>+ Group 3</th>
<th>+ Group 4</th>
<th>+ Group 5 (the richest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Sinh ward</td>
<td>95.0</td>
<td>98.1</td>
<td>95.0</td>
<td>66.5</td>
<td>12.9</td>
<td>15.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>100.0</td>
<td>96.0</td>
<td>77.5</td>
<td>25.0</td>
<td>12.5</td>
<td>100.0</td>
<td>95.0</td>
</tr>
<tr>
<td>Viet Dan ward</td>
<td>100.0</td>
<td>98.2</td>
<td>55.6</td>
<td>29.1</td>
<td>10.3</td>
<td>100.0</td>
<td>95.2</td>
</tr>
</tbody>
</table>

By income

<table>
<thead>
<tr>
<th>+ Group 1 (the poorest)</th>
<th>+ Group 2</th>
<th>+ Group 3</th>
<th>+ Group 4</th>
<th>+ Group 5 (the richest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.0</td>
<td>95.6</td>
<td>97.5</td>
<td>98.1</td>
<td>94.4</td>
</tr>
<tr>
<td>89.5</td>
<td>72.3</td>
<td>68.2</td>
<td>69.2</td>
<td>73.3</td>
</tr>
<tr>
<td>60.5</td>
<td>19.2</td>
<td>20.9</td>
<td>20.2</td>
<td>32.7</td>
</tr>
<tr>
<td>10.5</td>
<td>16.4</td>
<td>13.6</td>
<td>17.5</td>
<td>20.3</td>
</tr>
<tr>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.6 Clean water

Water source for bathing and washing

The majority of surveyed households in the project area use tap-water (95 %) for bathing and daily activities, the usage of other water sources is low: No HHs use water from ponds, lakes, rivers; 1.4% use other water sources and 1.0% use well water.

In the rural areas, 91.5% of the water sources used for bathing and daily activities from such sources as wells, private water taps; public water and rainwater are considered to be hygienic.

Table 6: Percentage of HHs in the project communes using water sources for bathing (%)

<table>
<thead>
<tr>
<th>Commune</th>
<th>Private running water tap</th>
<th>Public water</th>
<th>Wells</th>
<th>Water from ponds, lakes</th>
<th>Rainwater</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total samples</td>
<td>95.0</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>By commune</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An Sinh ward</td>
<td>95.3</td>
<td>0.0</td>
<td>4.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>92.0</td>
<td>0.0</td>
<td>8.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Viet Dan ward</td>
<td>95.2</td>
<td>0.0</td>
<td>2.7</td>
<td>0.0</td>
<td>0.0</td>
<td>1.8</td>
</tr>
<tr>
<td>In term of income groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Group 1 (the poorest)</td>
<td>90.0</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.0</td>
</tr>
<tr>
<td>+ Group 2</td>
<td>90.2</td>
<td>0.0</td>
<td>9.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>+ Group 3</td>
<td>95.5</td>
<td>0.0</td>
<td>4.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>+ Group 4</td>
<td>93.9</td>
<td>0.0</td>
<td>6.1</td>
<td>0.0</td>
<td>0.0</td>
<td>-</td>
</tr>
</tbody>
</table>
The survey data shows that 95% of people in the areas using domestic water from tap, which is transmiesed from Khe Che reservoir into water supply plant, through filtration system, then provides to users. As a result, keeping water from being lost in the reservoir of Khe Che is very important for living.

**Drinking water sources**

Like water for washing and bathing, drinking water of people in surveyed communes is mainly from tap at the rate of 98%; only 2% of people use water from wells for drinking.

In consideration of the relatively clean water in rural areas, these sources include: running water, well water, storm water and purchased water, supply of drinking water is relatively assured to up to 98% of people in the project area. However, it must be acknowledged that people in the project area do not use water from ponds and lakes for drinking water.

It can be said that in the surveyed project area, drinking and domestic water are not being met in terms of quantity and quality, thus keeping water during the water shortage season is very important which affect to the people in the project area.

**Table 7: Percentage of households using drinking water in the project area (%)**

<table>
<thead>
<tr>
<th>Communes</th>
<th>Private running water tap</th>
<th>Public water</th>
<th>Wells</th>
<th>Water from ponds, lakes</th>
<th>Rainwater</th>
<th>Commercial water</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total samples</td>
<td>98.0</td>
<td>0.0</td>
<td>2.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>By commune</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An Sinh ward</td>
<td>95.7</td>
<td>0.0</td>
<td>4.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>97.5</td>
<td>0.0</td>
<td>2.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Viet Dan ward</td>
<td>94.0</td>
<td>0.0</td>
<td>6.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>By income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Group 1 (the poorest)</td>
<td>92.7</td>
<td>0.0</td>
<td>6.3</td>
<td>0.0</td>
<td>0.0</td>
<td>-</td>
<td>1.0</td>
</tr>
<tr>
<td>+ Group 2</td>
<td>97.2</td>
<td>0.0</td>
<td>2.8</td>
<td>0.0</td>
<td>0.0</td>
<td>-</td>
<td>0.0</td>
</tr>
<tr>
<td>+ Group 3</td>
<td>98.0</td>
<td>0.0</td>
<td>2.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>+ Group 4</td>
<td>98.8</td>
<td>0.0</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>-</td>
</tr>
<tr>
<td>+ Group 5 (the richest)</td>
<td>100.0</td>
<td>0.0</td>
<td>100</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
3.2.7. Sanitation

Chart 4 shows that up to 94.6% of households in the surveyed area have used sanitary toilets; including 66.1% of households with septic and semi-septic tanks, 28.5% of households with 2 compartment toilets. In addition, about 3.7% of households still use simple toilets, and 1.2% of households have no toilets. In parallel with the implementation of the project, it is necessary to promote greater awareness of people about hygiene to protect health.

Chart 4: Kinds of toilets

The data in Table 8 also shows that toilets of ethnic minority households do not ensure the hygienic standards, this percentage is much higher than that of the Kinh: 6.2% versus 4.5%.

Table 8: Types of toilets of surveyed households

<table>
<thead>
<tr>
<th></th>
<th>Without toilets</th>
<th>Sanitary toilets</th>
<th>Unsanitary toilets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Septic and semi-septic tanks</td>
<td>Two compartment toilets</td>
</tr>
<tr>
<td>Total samples</td>
<td>1.2</td>
<td>66.1</td>
<td>28.5</td>
</tr>
<tr>
<td><strong>By commune</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An Sinh ward</td>
<td>0.0</td>
<td>60.5</td>
<td>22.7</td>
</tr>
<tr>
<td>Tan Viet ward</td>
<td>1.0</td>
<td>65.5</td>
<td>25.5</td>
</tr>
</tbody>
</table>
According to the income groups, it is noteworthy that in the surveyed wards and communes, the proportion of households whose toilets meet the standards is very high, accounting for more than 96.4%. The poorest group also has 93.3% of standard toilets. In contrast, the richest income group (group 5) has 99.8% toilets that meet the standards.

3.2.8. Income and Standards of Living of households

In the project areas, the middle and above income groups occupy a high rate (43.5% and 33.8% is) and especially the poverty rate in surveyed communes remains 2.5% only.

Table 9: The income of households (%)
According to the local self-evaluation, the standard of living is at average; the income groups of average and higher level account for 90%.

In terms of ethnicity at poverty level, there is not a big gap between the Kinh and ethnic people (0.5% and 5% respectively).

Similarly, for gender of the heads of households, female-headed households have the same rate of poverty as male-headed households (2.5% versus 2.5%). This number shows the equal role between male and female groups in creating income in the project area.

As a result, the Project will contribute to the improvement of the lives of affected and vulnerable women, strongly supporting women in generating income and stable life as well as poverty eradication.

3.2.9. A number of livelihood and social security issues

a. Loans

It is a regular and common situation when communities in rural areas are often in debts. The survey of residents in the project area indicates an actual situation of loans as shown in the Table 20, Appendix 1. One third of the interviewed households currently have loans, accounting for 34.5% of total respondents. Regarding the scale of debt, up to 85.6% of households borrow less than VND 60 million, and the rate of households with loans of more than VND 60 million is much lower only 9.4%. The loan is relatively low (≤ 60 million) because households do not dare to make a large-scale investment while their production and living conditions do not guarantee high profits for payment of loan and interest. Therefore, investing in irrigation infrastructure, agricultural production will make them feel safe. The HHs with the loans of more than VND 60 million mostly use for their business, majorly trading.

Chart 5: Purposes of loan
Chart 5 shows the different loan purposes of families. People use the loans for education, livestock and agricultural production more than 20%. This indicates the top priorities and demands of local people in the project area. Other purposes such as fishery, forestry, industry, make a very low rate (<5%).

When considering the ratio of loan purpose, the social survey data shows that "investment loans for livestock and agricultural production" account for the highest percentage. This is easily explained that people still focus on production development and life stabilization.

b. Social Security

It is likely that everyone will face and overcome risks or difficulties in a certain period of time in the life that need the help of other people (or organizations). The survey of difficulty/risk may require physical support, in the Chart 6, which shows that people rely heavily on support from their siblings, parents, then from parents from both sides, children, government/mass organization; and a small percentage of support from friends and neighbors of only 1-2%. This suggests that in addition to the support from parents, children; the unions and the government also play a significant part in helping people overcome difficulties in life and to develop production.

Chart 6: Physical support in difficulties
The Kinh has the highest ratio of helpinglessness, 4 times higher than that of the ethnic minorities. The proportion of high material support of the Kinh is from sibling (30.8%). Meanwhile, the percentage of material support in the ethnic minorities is: government and organizations (31.0%) and siblings (18.3%). The qualitative survey shows that in fact the material support for ethnic minority people is insignificant, moreover, the blood relationship in ethnic minorities is less cohesive than the Kinh and they live scatteredly. On the other hand and the most important thing, the relatives among ethnic minorities are also in difficult conditions, thus they cannot afford to help each other.

In terms of income group, the poor income group (group 1) receives significantly material support from governments/organizations (31.6%), and then support from parents, both exterior and internal (26.3%) while the highest income group (group 5) receives the most significant support from their siblings only (28.0%).

Chart 7: Rate of receiving moral support in difficulties
Chart 7 represents the results of the moral support in troubled time or in case of risks. Up to 95.7% of the respondents said that they always have someone to share with or receive support when they face difficulties/risks. Emotional support of people is mainly from their siblings, children, parents of the both sides; the rest is as low as 5% from relatives, neighbors, government/community and friends (Table 18, Appendix 1).

In terms of ethnicity or income groups, although the indices are different, they have important role in emotional support to those siblings, children and parents in difficulty.

Thus, the above data suggests an important role in providing material support of government/mass organizations to people in the poor income group, ethnic minorities, poor mountainous localities and people experiencing difficulties/risks in the life. For social groups, other localities, the physical and emotional support are both from siblings, parents and children, exterior and internal.

The survey results of the difficulties/needs of the people when the project is implemented are shown in Table 19, Appendix 1. The data show that the majority of people in the project are now struggling, and highly need loans, accounting for 30.8%. The significant demand for people when the project is implemented shows that not all their demands are reasonable and can be met, but it is a good suggestion for staffs and project implementing agencies to pay attention to concerns, worries of the people such as issues on resettlement, land, agriculture extension, new training, livelihood and vulnerable groups. From that, there should have suitable support and construction plans to help reduce negative impacts on daily life and livelihood of the people in general in the project area.

3. 2. 10. Gender Issue

There are some gender issues in the scope of the sub-project.

   (i) **Labor and Labor division:** Most of women are involved in agricultural activities. Women can work 9-10 hours/day while men only work for 8 hours/day). The limitation of
knowledge, access to technology and use of traditional agriculture methods contribute to local people often facing high risks of bad crops, diseases for cattle and undernourishment.

(ii) **Access to education:** All boys and girls have equal rights to go to school, however the female rate of school attendance is always lower than that of male.

(iii) **Women’s Involvement in group activities:** In subproject area, most women are Kinh. Women do not know how and are not trained and empowered to express their rights in front of the community. Therefore, they have few opinions in the community meetings.

(iv) **Women’s participant in local government system:** Through interviews with chairmen of commune PCs, it was recorded that women accounted for 35% within the Commune PC structure. No woman played a role as chairwoman of An Sinh CPC. Most women do not play leadership that influences the decision-making process.

(v) **Health:** Health conditions of women in An Sinh commune is not serious. However, not only women but also the community has the high potential risks of contracting diseases such as diarrhoea, skin allergies and other forms of infection.

**Expected positive impacts on gender.** The project when being implemented will have a positive impact on the people in the project area in general and on women in particular. These effects are:

(i) Creating new opportunities for economics, trade and services; creation of jobs to increase income for women, especially poor women and EM groups during project construction time, temporarily contributing to the poverty alleviation in the project communes; and

(ii) Providing opportunities to improve the status of women and enhance their participation in community activities through gender action plan.

**Negative impacts on gender.** Besides the positive impacts, the project may also impact negatively on women in particular and people in general in the area. The negative effect is the land acquisition that will affect the lives of families. However, the mitigation measures will be conducted through the compensation and resettlement plan. In addition, during construction, environmental pollution caused by dust, construction waste, noise may occur and affect people. These effects can be significantly reduced by the proposed mitigation measures.

**Measures to Minimize negative impacts.** To mitigate the negative impacts to women in the project area before and after the design, compensation and resettlement assistance, as well as supervision of construction projects, the project will enhance the dissemination of project information to the people in general and to women in particular to ensure that women will get maximum benefit from the advantageous conditions brought by the subproject.

**Gender Action Plan:** From the above analyses about gender, a gender action plan is needed to facilitate the full participation of women in the project construction stage, providing new opportunities for women to boost their income, without increased burden on their lives, and contributing to the enhancement of women’s role and status in the project area. The objectives of this plan include:

- The local contractors will employ at least 30% of female workers in maintenance, construction and repair works;
- For a similar type of work, female workers should be paid as much as male workers;
- Safety conditions must be equal to both men and women;
- The local contractors will not use child labor;
- The use of local labors is encouraged and the establishment of labor camps will be avoided;
- The Women’s Group and Union will be consulted about the design of subprojects;
- Training on gender mainstreaming will be provided for national, provincial and local authorities (i.e. PMUs and other stakeholders);
- Training and capacity building is provided for women to engage in public decision-making and sub-projects in a way that makes the most sense (i.e. training in participation, negotiation skills, marketing skills, mathematics and literacy);
- The involvement of women in project study tours is ensured.
- The agricultural extension services aimed at women are designed and delivered to women;
- The awareness enhancement campaign on HIV/AIDS will be launched before the start of civil works. PMU is responsible for monitoring and reporting of GAP key performance indicators, including the participation of women, target works and trainings, and HIV prevention campaigns;
- At least one woman shall be involved in the Supervision Board of a commune (about 1/3 of the members).

(For further activities, please appendix 4: Gender action plan)

3.2. 11. Ethnic minority screening

The ethnic minority screening was carried out on the basis of the area of influence identified by the environmental and social impact assessment. Mostly Kinh people are living in areas affected directly/indirectly and benefited by the sub-project, accounting 97.3%; Chinese people account for 0.2% and Tay people account for 1.5%. Besides, there are some other people of other ethnic groups living in the province when they got married with Kinh people who are living and working in the province. Within the project area, there are 135 beneficiaries of ethnic minority households in sub-project. There is no adverse impact of the sub-project to ethnic minorities in the project area. Moreover, all of them are beneficiaries in the irrigation command area of the sub-project.

The free, prior, and informed consultation (FPIC) was implemented with ethnic minorities in An Sinh, Tan Viet and Viet Dan communes. Almost EM communities living in the project area for long time are Tay groups. Although they have their own cultural identity through traditional festivals and languages, they still live together with Kinh people in the villages in the house style of Kinh people and communicate in Vietnamese. Therefore, it seems difficult to distinguish Tay people from Kinh people.

The Tay and the Kinh live together, have good solidarity and assistance with each other in production and daily life.

All of ethnic minority people in the consultation meetings gave broad support to the implementation of the subproject. They acknowledged the project objective to ensure safety of people living in the downstream of dam and maintain stable water supply for agriculture. Influence of construction on water supply was also mentioned. However, people agreed to the application of appropriate construction methods without influence on water supply and emergency water supply planning during construction. They expected that rehabilitation of the reservoir would improve irrigation service for their agricultural production. In addition, they proposed to project to support agricultural extension with demonstration of high-income agricultural models combined with training on advanced techniques for farmers.

Results of the Ethnic Minority (EM) screening confirmed that there are 135 beneficiaries of the ethnic minority households in sub-project. It is necessary to prepare an Ethnic Minorities Development Plan for the sub-project.
Part IV: Potentially positive impacts of the project

The project of Repair and upgrading for the safety of Khe Che reservoir is implemented for the purpose of ensuring safety for the dam and for people in the low land of the construction work, development of irrigation served for stable agricultural and forestry production, diversification of crops, and ensuring food security to adapt to climate change under the pressure of population growth, adverse changes of the weather and instability of the world, while solving water resources for domestic use, industry, fisheries, commercial services ... The stable supply of irrigation water to mountains, remote areas, especially in areas with particularly difficult for water associates with the social policies to gradually solve the drinking water and water for the people, serve the socio-economic development, and contribute to the successful implementation of the poverty reduction program.

This part presents potentially positive impacts of the Project, benefits for the people living in the project area in general and for households in particular. These impacts are presented in the following sub-section under the specific objectives of the Project.

4.1. Safety for reservoir and community

The repair and upgrade of Khe Che reservoir contribute to ensuring safety in downstream of reservoir and dam by proactively controlling flood and regulating lake: the downstream of Khe Che reservoir is composed of the communes An Sinh, Tan Viet, and Viet Dan in Dong Trieu district, Quang Ninh province. The safety ensurance of the reservoir during its operations is essential.

4.2 Improvement of moving around and immigration in case of disaster

The upgrading of 139.56 m of emergency road combined with the soil service road with the only access through a bridge across the channel will improve travel conditions, migration in the case of disaster that may occur.

4.3. Increase in the community capacity and awareness

The subproject enhances capacity and awareness of people in responding to disaster and dam unsafety, protects construction works and related issues through consultation, construction, training and communication in the process before, during and after the upgrade works, especially those activities relating to gender or ethnic minorities will create opportunities for capacity building for the people of the participating communes, increase the social understanding and community attachment, increase ability to organize, manage, monitor and increase the status of women as well as the level of associations in the community.
4.4. Enhance of capacity and improvement of cooperation in responding to dam unsafety

The upgrade and repair of Khe Che reservoir will improve the capacity and improve coordination in response to unsafe dams, natural disaster and adapt to climate change caused by upgrade and improvement of Khe Che reservoir work items including: reinforcing dam, expanding spillway for reservoir’s safety; solidification of the road leading to the dam and damp surface; supplementing and building the bridge across overflow, across the main channel; modifying and building the drainage system at the left side of the dam.

4.5. Irrigation stabilization

The reservoir has the task of ensuring water supply for 1,000 ha of arable area, supply of raw drinking water for more than 3000 persons; which is aiming for livelihood stabilization thanks to irrigation assurance for production, one of the main livelihoods in the local area.

The subproject helps improve agricultural production conditions by actively regulating irrigation water at the end of the rainy season, supply water for the dry season after the regulation works are upgraded and repaired.

4.6 Development of social welfare for vulnerable groups

Proper identification to ethnicities and female headed HHs, poor household paying attention to the most vulnerable groups are required to ensure that their welfare is the most interested matter in the Project. Strengthening social activities will create conditions for these groups to participate in the planning, design and implementation of sub-projects to ensure that the project will bring about the best benefits in the current conditions and mitigate their adverse impacts.

In the sub-project, the investment in stable water supply and creating opportunity to expand local roads will help people, especially women who save time for collecting water, agriculture production through actively arranging seasonal schedule, as well as the taking of water for livestock, economic development in farm garden, contributing to the diversity of types of agricultural products and increasing accessibility market, improved earnings. Domestic water is provided more time, which is the basic conditions to improve people's health, especially avoiding the diseases for women. Through the implementation of the gender action plan of the project, gender awareness will be raised in all levels of government and community. Women reducing labor time will have the opportunity to participate in community activities, learn to raise the level of knowledge, and education of children.

During the consultations, the people are very supportive of the sub-project in their area because they are well aware that this is the main mechanism to improve economic conditions. The project will improve traffic system, water supply; encourage the development of agriculture, recover some
typical commercial crops of high profit, promote circulation of goods, increase labor and employment outside, improve social services and environmental conditions for the local people. The project supports completion of construction and upgrading of multi-purpose water supply systems for water storage at the end of the rainy season in order to support the community access to water for cultivation and animal husbandry of the household. Towards the community suffering scarcity of irrigation water through the building, upgrading, improvement and restoration of multi-purpose water supply for residential areas, including multi-use water storage tanks, public water supply clusters, facilitating people to use water in many different purposes such as for bathing and washing, livestock and cage cleaning. The project will increase agricultural production, improve living conditions, stabilize water levels, improve the environment and the health status of the people in the project area, especially women and people in the project area.

4.7 The solution is optimizing investment efficiency

The repair and improvement of dam safety is a method to maximize the efficiency of construction investment in reservoir. After the project is completed, its irrigation efficiency will be maximized, while creating a positive impact as discussed in section IV. To further promote the efficiency of investment project, the reservoir management unit, local government and the people should perform the following activities:

- Developing and implementing proper reservoir operation procedures;

- Performing maintenance and repair reservoir periodically to ensure operation safety for reservoirs;

- Regularly training on operation and management technique for management staff;

- Disseminating and increasing awareness of people, students on Ordinance of protection of irrigation works, especially An Sinh people and beneficiary communes. This activity can be carried out at regular meetings at village and commune level as well as on the mass media on the loudspeaker of the communes.

- Regularly monitoring and check such items as culvert, spillway, dam, reservoir management road and ancillary works to detect the particular incident for timely treatment;

- Establishing information systems for reservoir safety warnings smoothly between the relevant agencies with government and local people to respond quickly in emergency situations;

- Developing an emergency plan to prevent the incident to the lake, while rehearsing the prevention plans for people;

- Regularly cleaning lakeside landscape, strictly prevent people from grazing, planting perennials within the protected works.
Part V: Potentially negative impacts of the Project

This Part will present and refer to the negative impacts that may occur in the Project and mitigation measures to be prepared to eliminate immediately or minimize the negative impacts as below.

5.1. Land acquisition and resettlement
The Dam Repair and Safety Improvement Dam project includes the repair and reinforcement of dam surface and spillway or concrete of service road, repair of water sewers without land acquisition. The repair and rehabilitation for safety of Khe Che reservoir sub-project will have direct impacts to An Sinh commune, Dong Trieu district, Quang Ninh province due to land loss for large space facility construction, due to the majority of affected land is on corridor for water works protection, annual crop land, small-sized facilities built far from the residential area.

The survey on implementation of compensation and resettlement plan also shows that the compensation and resettlement went smoothly because the investment projects are public facilities for the shake of communities. The investment of projects for community is always supported by local people, and they are willing to give land when it is required. If the land acquisition and resettlement are required, the locality will apply proposals approved in the scope of Resettlement Policy Framework (RPF), Ethnic Minorities Development Framework (EMDF) of the Project.

To minimize the impacts of land acquisition, in the detailed design, the Design Consultant should consult the local community to design proper measures to minimize the land acquisition and other adverse impacts to people. On the other hand, a Resettlement Policy Framework and EM Policy Framework for the whole Project and a Resettlement Action Plan and an EM Development Plan for each sub-project have been prepared to ensure that AHs of the Project will be compensated adequately.

5.2. Conflict of benefits and impacts on the local economy
For economy: The construction works will mobilize 30 workers in the peak period, will increase demand for food and local food, therefore contributing to services development.

For the management system of local government: The construction will attract migrants to the project area, which will be the cause of social evils and difficulties in controlling security order and social management. The impacts will be controlled by the contractors.

For humans: The illegal immigration and construction workers can carry and transmit diseases to strangers to the local people and vice versa. At the same time, their activities will cause pollution to the water and air creating conditions for pathogen development, especially common diseases such
as malaria, diarrhea, fever, jaundice ... that have influence on the health of construction workers and the people. This effect can be controlled by the contractors.

5.3. Impact of water supply failure during construction

Drainage of reservoir water will affect people's watering schedule (however, the construction is carried out at the end of rice crop and during the soil drying, so the impact is not significant); the power cuts will affect living of households near the construction area of flood overflow.

5.4 Gender equality and children rights:

During construction, repairing culverts can cause water cut for a season; and due to repairing the dam, water scarcity may happen, making women spend more time for water fetching (based on the customs and labor division by gender).

There will be many opportunities for men to participate in earning money, women to continue doing houseworks and not having the income. That was the cause of the women’s lower distance than men’s.

The reduction in agricultural and crop area will directly impact the income of women; this can also be indirect cause of forcing them to find jobs out of their homeland.

Children can also be put at risk due to water issues. So there must be safety policies for child and protection of children's rights, prohibiting children from selling goods or services around the repair and upgrading area.

Roads will be worse and dirtier in rainy season; it can affect children's psychological concerns on going to school and is the cause of dropping out of school among children.

5.4. The impact on health, community health

During construction, labor accidents may occur due to non-compliance with safety regulations on labor, material spillage, insecure transportation equipment, speeding, and dangerous over-crossing. Majority of workers are local, who are not mastering the technical process. When workers are exhausted after their overtime work or because of failures during machinery operation, their health may be impacted.

During the construction phase, there are about 30 construction workers and free migrants involved in the construction/other services, therefore, medical examination and treatment, as well as public healthcare of health centers will face more difficulties in case of diseases;

The activities generating waste and domestic wastewater, livestock farming services development of households, and participation in service activities by workers and current residents in the construction process will create dirty water holes which will cause unhygienic water, air pollution, enabling the development of flies, mosquitoes and possibly outbreak of diarrhea, dengue fever and malaria in case of lackage of prevention, treatment and good sanitation counter-measures.
5.5. Social evils

The concentration of a large number of workers in the field with a very high proportion of men, current residents, business activities and entertainment may result in complex social evils such as heroin and prostitution. Some social diseases such as HIV/AIDS, hepatitis B and C can appear and spread;

Besides, the upgrading of Khe Che reservoir will create the clean and beautiful environment, increase the number of tourists which create favorable conditions for tourist services development, and therefore, can increase some of the social ills such as drug addiction, prostitution...

5.7. Pollution of plant protection products and fertilizers

The assurance of stable irrigated area can change the structure of agricultural crops and result in an increase in plant protection products and fertilizers. These toxic chemicals are the potential to reduce biodiversity, pollute the air, soil, water and have direct impacts on the health of farmers and indirect effects on consumers.

5.6. Potential conflicts in the use of water and roles of stakeholders

It is likely that the amount of water will be less, which would have dispute or dissatisfaction between households when some households enjoy more favorable locations for water but other households don’t. The commitment of the rural households should be made through the meetings; the village heads should disseminate information before the occurrence of such situation.

The Project aims at increasing the capacity of local agencies involved in the management and implementation of dam upgrading, community participatory encouragement, strengthening knowledge and understanding of the management, repair as well as facilitating the equality cooperation between the users, beneficiaries with management agency and local authorities. This will help people and local communities develop water resource management mechanisms collectively to avoid conflicts between the stakeholders and to minimize the short and long term potential impacts. It can be shown in the contradictory between the IMC (or local irrigation officials) and irrigation service users when the water supply plan is different. Or the conflict between the water users, especially when they realize the inequality in the water supply between those in the upstream and those in the downstream.
Part VI. Mitigation measures

The public consultation, survey and assessment of the repair and upgrade of Khe Che reservoir subproject, Quang Ninh province suggest that the Project will bring huge benefits, both short-term and long-term benefits to residents and communities in the project area in particular and Quang Ninh in general. Specifically, the Project will contribute to ensure the safety of the reservoir, stability of irrigated area, which is an important factor for the development of irrigation for mountainous areas, especially areas with water resources difficulties.

However, during the construction and after completion of the Project, there are a number of negative factors affecting people's lives and communities in the project area. The fundamental negative factors are land acquisition and resettlement, conflicts on water use, increase in the use of fertilizer, health risks, social evils...

The positive impacts of the Project are easily recognized and significant; the negative impacts are minor and can be overcome by the compliance with the policy framework, regulations, and instructions of the project plans, donors and the Government. In addition, the mitigation measures and minimization of negative impacts caused by the Project will include the details as follows:

6.1 Consultation with stakeholders

To minimize the risks related to the negative effects that may arise and to establish communication channels, the Consultant has consulted the local community many times during the project preparation. The Project is financed by international organizations, the level of compensation in one location where exists many types of investment, may apply several inconsistent compensation policy, which complaints may arise. Therefore, the province should have documents to guide the implementation of the inventory, payment, replacement costs of the Project based on the Resettlement Policy Framework. PMU collaborates with localities to provide information on project investment objectives and policies to the community for them to understand requirements on water use efficiency through propagandas.

Consultation with EM peoples:

For this subproject, a RAP has been prepared to ensure the loss of land/crop anticipated at the reservoir site will be appropriately and timely compensated for. There is no adverse impact anticipated for the EM peoples present in the project area. An EMDP has been prepared for this subproject - on the basis of social assessment and consultation with the EM peoples from this subproject. The EMDP aims to offer development opportunities for these EM present in the subproject area even though they are not adversely affected as a result of the subproject.

Free, prior and informed consultations with EM indicated that because there is no adverse impact anticipated for the EM peoples, and that the EMDP was prepared to provide additional development
opportunities to EM peoples, there has been a broad community support from the EM peoples consulted for the subproject implementation.

6.2 Policies

Policies should be strictly implementated, that are regulations on compensation, support and resettlement. These are laws and regulations of Vietnam (Constitution of the Republic Socialist of Vietnam (1992) confirmed the rights of citizens to own and protect the housing ownership. In addition, the Government enacted a number of laws, decrees, and regulations setting up the legal framework for land acquisition, compensation and resettlement. Quang Ninh province has also issued a number of documents on application of the decrees of the Government). Furthermore, policies also be considered regarding the compulsory resettlement as defined by the World Bank in order to minimize potential negative impacts to people, including paying attention to the issues, and genders and other vulnerable groups. At the same time, the policy also regulate the dissemination of information to the affected people, monitoring and evaluating the implementation of compensation and resettlement.

6.3. It is necessary to consider the basic differences between the policies related to social and resettlement of Vietnam and Involuntary Resettlement (OP 4.12) of the World Bank to propose appropriate and specific measures for the compensation price as following:

At the time of land acquisition, district compensation councils carry out the replacement cost survey to ensure that the compensation rates for all affected properties are replacement costs at the market price.

Houses and buildings on land which are not eligible to receive compensation but will be compensated by 100% replacement cost of the houses/new works, excluding depreciation of reused materials can if they do not violate zoning and land use planning as confirmed by the competent authorities or do not violate the work protection corridor at the time of construction.

For support for family household businesses and severely affected households: All business AHs are eligible to receive support, regardless of whether they are registered for business or not. The AHs losing 20% or more (10% or more for the poor and vulnerable groups) of the total area of productive land will be compensated with "land by land" or cash at replacement cost, depending on the requirements of households and public land of each locality. In addition to compensation for loss of land, households also receive livelihood recovery program and job training/job creation.

6.4 Resettlement Action Plan (RAP)

The best efforts have been made to avoid land acquisition and resettlement of local people but the acquisition of land and other properties of the people are inevitable. At the request of the World
Bank, the RAP has been prepared for the first round of the projects and the Resettlement Plan will be similarly prepared for the second round projects. This plan reflects how the project will minimize the loss of affected people in the project; rehabilitate their livelihoods by compensation, support, and/or subsidization. The overall objectives of the Resettlement Action Plan are to ensure that all AHs are compensated at replacement cost for their losses and to provide support measures for livelihood rehabilitation - at least as equal as previously.

6.5 Good preparation and implementation of public health management plans

Good control of adverse effects and health risks to the community during the construction of the Sub-project. Proactively prevent diseases arising in the course of construction while respond effectively diseases. Strengthen communications and health education for the people, the local authorities about the risks of potential disease development in the sub-project construction process.

6.6 Good preparation and implementation of participatory communication, public health consultation plan:

It is required to increase information accessibility for their own interests in the project area. The construction project plans are informed and updated to people for them to proactively plan their production and living. Information for development: improving the information accessibility served for the life of the people, contributing to improve the quality of life. Enhancing the participation of the people is also important.

6.7 Good preparation and implementation of gender action plans

A gender action plan is needed to facilitate the full participation of women in the construction phase of the project, providing new opportunity for women to increase their income but does not increase the burden on their lives, and contribute to increasing the role and status of women in the project area.

6.8 Information disclosure, social accountability and monitoring

In order to ensure the participation of affected communities, families, local governments and organizations related in the information disclosure of projects, consultation on selection of technical alternatives, expected impacts on land, income and assets on land ..., the information disclosure sheet is an important contribution in accelerating the project in the processes of implementation, preparation, and when the project goes into operation together with the consensus of the community, PMU government. This will minimize the possibility of potential conflicts and other risks, and increase the efficiency of investment and social significance of the project.

6.9 Hire an experienced specialist, who will collaborate with the PMU to implement the resettlement plans and rehabilitation programs for people.
Part VII: Roles of Stakeholders

7.1. Overview of the participating agencies
In the preparation phase and implementation of the project, DARD Quang Ninh is the governing body who is responsible for overall supervision and direction of the Project under the supervision and direction of the related sectors and departments. The Project Management Unit will be the representative of the governing body to perform all activities of the Project.

In addition, there are departments, sectors, DPCs, CPCs, and communities in the project area, the consulting units...

During the operational phase and when the project is put into use, the work will be handed over to Dong Trieu Irrigation Work Exploitation Company for management.

7.2. Roles of the agencies participating in the project management and implementation

7.2.1. Roles of management agencies

Quang Ninh Province: is the agency who directly instructs the project implementation. Quang Ninh province is responsible for the entire activities of the Project to the Government of Vietnam. To Vietnam party, Quang Ninh province is authorized to approve related documents in the project preparation and implementation.

Quang Ninh DARD: The Client of the Project is responsible for the entire operation of the project before Quang Ninh PPC; expertise management and giving guidance to the PMU necessary procedures related to the contractors and work items in the construction stage, supervising the contractors in complying with the traffic safety rules.

Department of Planning and Investment: Collaborates with relevant agencies to assist the CPC in the capital plan implementation, annual budget preparation and giving guidance to the PMU in implementation of funding procedures; support the PMU in procedures and processes for appraisal of technical reports, the project components, bid documents, and bid evaluation. Collaborates with relevant departments to consult the PPC in the appraisal and approval of the Project and help the PMU in solving problems in the project implementation.

Department of Finance: Collaborates with the Department of Planning and Investment to provide annual funding for the Project under the provincial budget. Support the PMU in financial planning and evaluation of the financial costs, the operation of the PMU to submit to the PPC for approval; appraisal of compensation price, implementation of resettlement policy and income rehabilitation support under the current regulations and social safeguard policies of the World Bank. Assist the PMU to solve financial problems during the project implementation.

Department of Natural Resources and Environment: Gives guidelines to the PMU the legal procedures and processes for evaluation and approval of environmental impact assessment reports; Collaborates with relevant departments for evaluation of resettlement compensation, site clearance
and land granting plans for the Project; gives the PMU guidelines and performs the environmental management and monitoring during the construction of the project.

Provincial State Treasury: Support the PMU legal procedures in the disbursement process and counterpart funding for the Project.

Compensation and Site Clearance Board: As the competent body to decide the mechanism and policies on compensation and resettlement of in the Project, hand over the construction sites to the contractors on schedule, collaborates with the PMU to implement the resettlement and land clearance to ensure the construction progress and social safeguard policies of the World Bank.

District/Commune People's Committee: the DPC collaborates with the PMU on the disclosure of the project information to the people, performs compensation and clearance activities; collaborates with the contractors on work items, collaborates with the PMU, the independent experts in the supervision of contractors’ activities and construction stage in localities. The CPC is also an authority to capture feedback from people regarding their unfavorable conditions caused by the Project. The role of the CPC is very important and indispensable in many activities both during the preparation and in the project implementation.

7.2.2. Roles of unions and public organizations

Social organizations, associations, community organizations and users of the work items of the Project will have a very important role in the project implementation process.

The political - social organizations such as the Fatherland Front, Women's Union, Farmers Union, Youth Union, Associations for Elderly ... are the organizations with a large number of memberships from various structures, including members of villages, hamlets. The social organizations closely monitor the implementation of the Project, especially the land acquisition, compensation and resettlement to ensure the compliance with security policies of the Bank and the current regulations of Vietnam laws. The unions and mass organizations in the community where receive the issues and responses of people related to the activities of the Project during the preparation, construction and operation. The supervision of the organizations and unions in collaboration with the residential groups in the community play a significant role in helping the PMU, the contractors promptly adjust the design, construction activities to minimize the undesirable impacts to the lives of people in affected areas.

Villages, hamlets: A level where the local people works directly with and reflect the issues raised in the course of preparation, construction and operation of the Project. Villages, hamlets will be the final steps of implementation of the project information provision to the people and be the first contact to receive feedback from the people involved in the Project. The role of village/hamlet officials is very important; and reflects objectively and timely the aspirations and legitimate recommendations of residents in the project implementation process in order to minimize the unexpected impacts to the life of people. In addition, the opinions from village/hamlet officials also
helps to build the project items in a more appropriate fashion, bring about more economic and social efficiency for communities who are direct beneficiaries of the Project.

7.3. Collaborations between stakeholders

In the project preparation and implementation, the involvement of stakeholders has particularly important. First of all, the comments in the design will contribute remarkably to the design adjustment to meet the technical requirements and increase socio-economic efficiency as well as the investment performance, minimize undesirable effects caused by the construction to the lives of people in the community, especially the impacts on society and environment during construction and operation. The unsuccessful collaboration between stakeholders will result in potential waste of resources, delay of the project progress; negative social and environmental impacts as well as investment efficiency ... In project implementation process, the good collaboration between them will ensure the implementation progress of the Project.

The analysis of the project implementation process in Quang Ninh province shows that the collaboration between stakeholders is pretty good and has no problems.

7.4. Needs for training of capacity building of stakeholders

The PMU has experienced in the management of ODA project implementation, however, nearly half of them performs several tasks and do not have experience in project management. Therefore, the needs for training of capacity building have been identified for specialized teams in addition to a number of officials of the departments and agencies of the province.

The capacity strengthening contents are defined: training, professional and specialized training for members of the PMU, experts from departments related to the project in the fields of project management, bidding, construction supervision, project management and operation.
8.1. Conclusions

Livelihood resources of communities and livelihoods of the people, the uneven distribution of resources, capital, physical capital, financial capital in the social groups are the factors affecting the economic development and social justice in the project area. It also has influence and dominate the livelihoods of households of different social groups. Flexible and quite effective livelihoods of many households in vulnerable groups shows that if positive and consistent support is provided, they will have many opportunities to escape poverty and improve their lives.

Two main livelihood resources of the community in the project area are human and agricultural land. The Dam Repair and Safety Improvement Project (WB8) will create an opportunity to promote advantages of the two aforementioned livelihood resources, expand agricultural production, create jobs, raise incomes and improve lives of the people.

Positive Impacts

The demand of all provinces in the country not only Quang Ninh province for renovation, upgrading of lake and dam system is very high. If the Repair and Improvement of Che Khe Reservoir Project in An Sinh commune, Dong Trieu district, Quang Ninh province is implemented irrigation water supply for 1,000 ha of two and drinking water for nearly 3,000 HHs in the downstream will be guaranteed. This area is fertile and very potential in case of investment in irrigation, and intensive cultivation, it will bring high economic efficiency. After the project is completed, irrigation water for plants will be supplied fully, which will facilitate reclamation and rehabilitation of wasteland, and forestation. In addition to the economic benefits, the project bears great significance for the improvement of ecological environment and landscape.

This is a big project for only agricultural production, but it has a huge impact on all aspects of not only the benefecicial area but also in the whole region. The project will contribute to changing the rural face of the region. Economic development, and people's life stability is a precondition for investment, and solutions of social issues such as health, education, security and social order. In addition, The project also bring other benefits such as: capacity building, raising community awareness, improving travel, and migration conditions in case of disasters, possibly creating more jobs, especially for workers during construction, reducing idle time and contributing to poverty reduction for people in An Sinh commune and the surroundings, and creating the good environment and landscape around the Rerservoir.

The solutions optimize the efficiency of investment after the upgrade should be taken seriously in order to maximize the efficiency of the sub-project investment.

Negative Impacts
Besides the positive effects, the sub-project also has some negative effects, such as changes in irrigated area and crop structure requiring additional investment in fertilizers and pesticides, and impacts on the environment of plants and animals and humans. The construction process requires accumulation of immigrant workers from other areas which may cause a conflict between the forces of workers and local residents. Disputes about the benefits and impacts on the local economy, community health and safety, environmental pollution, disease outbreaks, the social evils all may arise; however, these impacts can be minimized by the mitigation measures in the implementation phase of the project.

**Mitigation measures**

The mitigation measures to be applied include: consultation of stakeholders during project implementation as well as the initial operational phase in order to minimize the conflicts arising; compliance in implementation of the resettlement action plan, social environment management plan, public health management plan, gender action plans, communication plans as well as information disclosure, responsible for explaining, monitoring the reports to minimize the negative impacts of the project.

**8.2. Recommendations**

The Damp Repair and Upgrading for safety Subproject has main potential impacts on agricultural production development, and domino-effect on non-agricultural production fields, improving income and community life of the local people. The project promotes the efficient use of resources of the main livelihoods of social groups. However, financial and physical resources of programs or other projects do exist many limitations, failure to meet the development goals and sustainable poverty reduction. As a result, the integration of a wide range of socio-economic development projects and programs in the locality is encouraged in order to integrate the resources for the implementation of this goal. For community in project area, the livelihood resources of social groups remain weak and inadequate such as financial capital, land cultivation, irrigation, manufacturing facilities, human capacity ... Therefore, the integration of programs and projects in the province will increase the effective use of the livelihood resources of social groups in the community, especially the vulnerable groups. For example, to deal with the uncertain food production, the development of irrigation systems is necessary but not enough, therefore, the combination with the agricultural extension, disease prevention, application of engineering techniques, new technologies, post-harvest technology, agricultural insurance, credit, processing and consumption will work. This solution is to ensure the sustainability of agricultural production.

The human resources of the project area are still weak compared to other types of livelihood resources, and thus have immediate and long-term impacts to the sustainable poverty reduction. The improvement of human resources is difficult and long-term task. The human resources play an important role in improving human resources. Therefore, the project should have a program for community capacity enhancement, focusing on training activities associated with the main livelihood activities of social groups and communities in each area.
For the Project, the construction should be carried out simultaneously and put into use immediately, and avoids separate implementation which can decrease the effectiveness of the Project. On the other hand, attention should be paid to minimize the adverse impacts on economic activities, daily activities, transportation, and the environment during the construction. The management and monitoring of stakeholders should be strengthened, including residents in the project implementation process, especially the monitoring of the implementation of compensation, support, resettlement and livelihood rehabilitation of APs to ensure that all citizens get benefits from the Project. Therefore, it is necessary to prepare a Resettlement Policy Framework, and a RAP, for each sub-project.
APPENDIX 1: OBJECTIVES AND METHODOLOGY OF SA

1. Objectives and tasks of Study

The main objective of Social Impact Assessment (SA) is to provide an integrated framework for the social analysis in accordance with the World Bank's processes and activities. Because there are many social variables that may potentially affect the operation and success of the Project, the SA has focused on investigating and assessing the issues related to construction activities and operation of the Project. The decision on determination of important issues and how to resolve them have been done by the consultations with the stakeholders as well as utilization of different methods to collect information and analyze data. The SA has been implemented through (a) a Socio-economic Survey (SES) at the Regional and Provincial level of the Project and (b) a socioeconomic survey for HHs in the Project.

In this context, the SES has been designed to (i) provide baseline data on household and assessment of the impacts of resettlement; (ii) ensure that the rights of persons affected by proposals are satisfactory, suitable and can be used for the monitoring of resettlement. Quantitative and qualitative methods have been used to collect socio-economic information of households. At a minimum level, the SES has collected information from a sample size of 127 households (3% of downstream HHs), who were identified as beneficiaries of the Project, regardless of gender and ethnicity. Scale of collected data includes socio-economy information of heads of households (name, sex, age, livelihood or occupation, income, education, and ethnicity) and household members (number, livelihood or occupation, children and school-age children, and literacy, regardless of gender; living conditions (access to water supply, sanitation, and energy for cooking and lighting, ownership of durable goods, and access to services and basic structures); The use of the land of affected households; and the social and potential impacts of the project to local people.

2. Methodology for assessment

There are many methods and techniques used in the assessment, the Consultant has applied the following methods to collect and evaluate information:

(i) Document review: The review and analysis of documents related to the Project will provide basic information of the Project and help to explain reasons for existing changes or non-existence. On the other hand, it also helps identify gaps in data in need to be collected and evaluated further. The supply sources of documentation may come from the Project Management Unit of Water Resources Construction Investment No. 2, Division of Agriculture & Rural Development of Dong Trieu district, Division of Natural Resources and Environment of Dong Trieu district, Statistical Office of Dong Trieu district, and PCs of An Sinh, Tan Viet, and Viet Dan communes -
the affected communes and beneficiary communes in low land of the reservoir under the Project of Repair and Upgrading for the Safety of Khe Che reservoir in Quang Ninh province.

(ii) Random sample survey: to collect information from a large number of affected people through the questionnaire interview with specific questions served for statistical analysis. The survey results will provide the basis for other evaluation studies as they help collect important data about the implementation issues or specific indicators from a sample. This method requires a sampling strategy (shown as below) to evaluate criteria before and after the existence of the Project.

(iii) In-depth interviews and group discussions: to collect general information, point of views on a particular issue or clarify an issue an issue from a small group of selected people as representatives of different viewpoints and various APs (the poor, ethnic minorities, severely affected persons, ...). Group discussion is a good method to collect opinions of changes, assessment of quality of services provided and identify fields to be improved.

(iv) Direct observation: help timely obtain information and usefully complement to the data collected, better understand the context in which the information is collected and explain the survey results.

3. Research sample

Based on the basic design, the Consultant in cooperation with PPMU staffs and cadastral officials of project communes make a list of households affected by the Project in each commune. On the basis of the list of AHs provided by the locality, the Consultant selects 100% of the total number of households affected and 10% of households not affected by the Project (including 100% of the households to be required for the relocation) to be interviewed by questionnaires. Samples are selected to ensure gender ratio and ethnic minorities. In case of the number of AHs of one sub-project is less than 20, all the AHs will be interviewed.

The in-depth interviews and focus group discussions are selected from the survey and from those who provide key information at the provincial, district, communal levels and local people. Each discussion group consists of 6-8 people, 3 of which are female and ethnic.

At the project of Repair and upgrading for the safety of Khe Che reservoir in Quang Ninh province, the Consultant has carried out the following quantitative studies:

- In-depth interview 1 provincial leader of Project;
- In-depth interview 2 leaders of communal government;
- In-depth interview 1 female staff;
- Hold 03 group discussions with 25 representatives from affected households, in Ba Xa village, An Sinh commune, Dong Trieu district, Quang Ninh province.

**4. Organization and implementation of research**

The Consultant has established a research team consisting of six key experts (including a team leader) and the fieldwork experts. The experts have collected the documents from CPO and Design Consultant related to the project for the purpose of studying. Besides, the Consultant also uses the questionnaires at household level as provided by the central Consultant, guiding group discussions, in-depth interviews and forms which are used to gather secondary information at the provincial, district and communal levels.

**5. Tools for information collection**

*Household questionnaire:* is designed consisting of 8 parts: Part 1 - General information about households and households’ members with the main indicator, namely age, gender, marital status, education, occupation and income; Part 2 - Properties of households; Part 3 - Income and expenditures; Part 4 - Access to social services; Part 5 - Production activities including the activities of agriculture, forestry and fishery, business/service, handicrafts; Section 6 – Some issues relating to the project; Section 7 – Understanding of diseases which infected through sex and HIV/AIDS; Part 8 - Gender issue.

*In-depth interviews and focus group discussions:* Focusing on the issues of (i) rural infrastructure in surveyed localities, (ii) the impact of climate change on production and life and adaptability of local people, (iii) status of land use and its trends, (iv) access to clean water and sanitation in rural areas, (v) community awareness about the impacts of the use of chemicals in the production to the natural environment and natural habitats, and (vi) potential positive and negative effects of the Project to the people and mitigation measures.

*Forms:* have been designed to collect secondary information and data in provinces, districts and communes, including the key information and data about the natural land and land use planning of each locality, population and labor, ethnicity and support programs for ethnic minorities, socio-economic indicators (average GDP, GDP per capita, poverty rate, percentage of households using clean water and toilets, number of hospitals and clinics, educational situation), areas affected by drought and floods every year, average rice yield, volume of fishing and aquaculture, irrigation systems and rural transportation.
APPENDIX 2: PUBLIC HEALTH MANAGEMENT PLAN

1. Purposes
- Better control adverse impacts and risks to public health in the subproject construction period.
- Proactively prevent diseases that arise in the subproject construction period while respond effectively with diseases.
- Enhance communication, education and health for the people, local authorities about the potential risk of diseases in the subproject construction period.

2. Contents of the Public Health Management Plan

2.1. Control of the subproject construction locations
To protect human health and the environment, the construction area will be strictly controlled in order to reduce the traveling of people. Before the commencement of construction activities, the contractors shall take measures to maintain the security and control the entry in that location. The contractors will localize the construction areas; put flags on trees, shrubs and fix landmarks within the construction area to avoid any impacts, and the boundary to restrict the entry. The hazards in the construction areas include earth dams and embankments, and machinery, therefore, only the construction workers will be allowed to enter. This information will be announced at the meeting and regularly repeated on the communal loudspeaker system.

2.2. Prevention of construction waste dump
The construction waste should be collected and transported to the landfill as regulated prior to the construction. Waste transporting vehicles must be shielded to avoid spillage affecting the environment and the activities of local people and leading to health problems.

2.3. Outbreak and spread of diseases
- Kinds of diseases, especially infectious diseases are regularly found on the project site;
- The risk of spread of infectious disease or affecting community health from immigrant workers, and vice versa.

2.4. Prevention of personal injuries
- Workers directly involved in the construction must be equipped with protective clothing, masks, gloves, hard hats, cotton earplugs … according to current regulations on occupational safety. The dissemination of knowledge on hygiene, occupational safety for all workers should be taken.
- Control the entry of local workers entering the construction areas as mentioned in section 2.1.

2.5. Responding to emergencies
Provide contacts: Contractors and localities should provide address and telephone contact to local people in case of emergency. It is possible to provide road map to the nearest medical facility.

Problems may occur during the sub-project construction include: car or construction machinery accidents, fire or environmental accidents (oil spill caused by malfunctioning machinery, broken
waste tank of workers).

In case of incidents, related people must immediately contact the address provided above. In case of accident, victims should be provided with first aids before he is taken to medical facility. In case of fire or other environmental incidents, it is necessary to localize the incidents and contact the relevant authorities for proper solutions.

In the event of natural disasters, such as earthquakes, floods, or other dangerous weather conditions, the contractors will cease all work activities and evacuate the workers to safety areas. The working areas will be shielded to keep out of chemicals, and machineries and vehicles should be tightened to avoid impacts to the community.

1. **Locations:**
   The planning and management of public health will be performed in communes in the project and construction areas of Khe Che reservoir sub-project.

2. **Implementation period:** Before and after the subproject construction period (18 months).

3. **Methods of management and supervision**
   a. **Management and supervision indicators:**
      - Number of labor accidents caused by the subproject construction;
      - Number of traffic accidents caused by means of transports served for the sub-project construction.
      - Number of times/number of workers are ill, especially infectious diseases;
      - Availability of the medicine boxes in camps;
      - Number of employees are guided//trained on issues related to community health;
      - Documentation guiding the first aid/responding to the epidemic, accident used by contractors and deliver to workers.

   b. **Management methods**
      - Contractors will assign his work commander or a worker to take in charge of occupational safety and health for workers to monitor and support related issues.
      - Contractors shall coordinate with the communal health centers, village health officials to timely update the disease situation in the localities or health problems of workers that may spread out.
      - Contractors shall coordinate with local authorities, health centers to inform on issues related to the safety of people in the site construction or along construction materials/waste transport road.
      - The CPC//medical station should actively inspect the hygiene, safety at construction sites and workers' camps.
      - The Contractor shall coordinate with CPC/medical station to agree on a coordination mechanism in case of accidents or disease outbreak.
4. Management, monitoring and implementation units

i) Project Management Unit for Agriculture and Rural Development Sector in Quang Ninh: The PMU will be responsible for overall monitoring of all project activities, including media planning, public health consultation. The issues related to the public health are also reflected in the Grievance Redress of the Project.

ii) Communal authorities: Communal authorities are responsible for all matters arising in the commune in general. Communal authorities will assign the Community Monitoring Committee to monitor the communication activities, the local consultation.

iii) Communal Health Centers: the CHC will manage, monitor, provide initial aid, report the public health problems in the commune. Therefore, the issues relating to public health will also be monitored, controlled and supported for these units.

iv) Contractors: The commander of the work will act on behalf of the contractors to collaborate with local governments to implement the communication activities, and consultations relating to the community health and workers.

5. Funding for the implementation

For contractors: Funding of contractors is included in the civil contract.

For health centers: There is no funding for these activities because it is the responsibility of the medical units to manage the public health.
APPENDIX 3: COMMUNICATION PLAN, HEALTH CONSULTATION WITH COMMUNITY PARTICIPATION

1. **Purposes:**
   - Increase access to information for their own interests to the people in the project area;
   - People are informed, and updated the project implementation schedules for them to be proactive in their life and production activities.
   - Information for development: improving access to information served for the life of the people, contributing to improved quality of life;
   - Increase the participation of the people.

2. **Subjects of communication, consultation**
   - People in the communes, especially in the project area and villages/hamlets where vehicles transporting construction materials travel.
   - Local authorities, officials of villages/hamlets
   - Workers and officials of the construction sites
   - For the community, the participation of both men and women should be encouraged

3. **Contents of communication, consultation**
   - Contents, main items of the Sub-project, funding for implementation;
   - Effects of sub-projects will bring about;
   - Organize the construction of the Sub-project in localities: information about the Client, the contractors, the implemented monitoring;
   - Plan, execution schedule of the works;
   - Impacts that may occur during the construction, impacts on the environment, society and the people of the province in the project area;
   - Mechanism participation of citizens, community monitoring mechanisms, mechanisms for dealing with complaints and grievances;
   - Problems arisen during the implementation of the project: reveal, conflicts arisen, combustible materials, violations, commitment of contractors, Client ...
   - Inform hiring of local residents in construction activities.

4. **Time: Before and after the subproject implementation process.**
   Approximately 1 month before the construction, the contractors will coordinate with local authorities to inform the community construction schedules as well as potential impacts related to public health.

5. **Locations:**
   In project communes, priority is given to the sub-project construction areas.

6. **Methods of communication, consultation**
Communication activities, consultations are taken through the following main methods:

- **Communication through communal loudspeakers.** Currently, An Sinh commune has a loudspeaker system in all villages. Most of the other media activities to the community is done through this method. Therefore, loudspeakers will be used to inform the people in the commune related issues during the sub-project construction.

- **Community Meeting/Public Consultation:** This form will be implemented with the participation of workers in the rural communes of the Project; people in Village 1 where the sub-project is constructed and households along the road transporting of construction materials or disposal areas.

- **Communications integrated into activities of mass organizations or authorities:** The authorities often hold meetings with communal officials and the mass organizations in the village each month, therefore, the content of communications can integrated into these activities.

7. **Implementers:**

   a. **Before the project is implemented:**
   The Safeguard Policy Consultant will perform the communications, public consultation on safety policy issues in general.

   b. **During the project implementation:**
   The PMU, the Contractors will collaborate with local authorities and social organizations, village, hamlets under construction and implementation of communication activities according to the aforementioned methods.

8. **Implementation monitoring**
The communication and community consultation plan relates to the participation and monitoring of the following units:

   - **Quang Ninh Provincial Project Management Unit:** The PPMU will be responsible for overall monitoring of all project activities, including communication, participatory consultation plan. The issues related to directly people about environmental, compensation for affected properties are also reflected in the Grievance Redress of the Project.

   - **Communal authorities:** Communal authorities are responsible for all matters arising in the commune in general. Communal authorities will assign the Community Monitoring Committee to monitor the communication activities, the local consultation.

   - **Contractors:** The commander of the work will act on behalf of the contractors to collaborate with local governments to implement communication activities with the participation of community and workers.

9. **Implementation fund**
The fund will be carried out mainly in the construction and construction preparation periods. Funding is shown the in following table:
Table 1: Cost estimate for the information disclosure

<table>
<thead>
<tr>
<th>Activities</th>
<th>Frequency</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Cost estimate</th>
<th>Budget fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report construction activities via the loudspeaker</td>
<td>Once a week during construction period</td>
<td>1 time x 78 weeks = 78 times</td>
<td>30.000 VND/1 news</td>
<td>2.340.000 VND</td>
<td>To be included in the contract between Client and stakeholders</td>
</tr>
<tr>
<td>Organize large-scale consultation with representatives of the commune, district and households related in the construction</td>
<td>Every three months during construction period</td>
<td>6 times within 18 months</td>
<td>500.000 VND/1 meeting</td>
<td>3.000.000 VND</td>
<td>To be included in the contract between Client and stakeholders</td>
</tr>
<tr>
<td>Post the message on boards to disclose information to the CPC and the People</td>
<td>Every two weeks during construction period</td>
<td>39 times during construction period</td>
<td>50.000 VND/1 news</td>
<td>1.950.000 VND</td>
<td>To be included in the contract between Client and stakeholders</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>7.290.000 VND</strong></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 4: GENDER ACTION PLAN

(For a summary and details, please see GAP Report of this subproject)

From the above analyses of gender, a gender action plan is needed to facilitate the full participation of women in the project construction stage, providing new opportunities for women to boost their income, without increased burden on their lives, and contributing to the enhancement of women’s role and status in the project area. The objectives of this plan include:

- The local contractors will employ at least 30% of female workers in maintenance, construction and repair works;
- For a similar type of work, female workers should be paid as much as male workers;
- Safety conditions must be equal to both men and women;
- The local contractors will not use child labor;
- The use of local labors is encouraged and the establishment of labor camps will be avoided;
- The Women’s Group and Union will be consulted about the design of subprojects;
- Training on gender mainstreaming will be provided for national, provincial and local authorities (i.e. PMUs, and other stakeholders);
- Training and capacity building is provided for women to engage in public decision-making and sub-projects in a way that makes the most sense (i.e. training in participation, negotiation skills, marketing skills, mathematics and literacy);
- The involvement of women in project study tours is ensured.
- The agricultural extension services aimed at women are designed and delivered to women;
- The awareness enhancement campaign on HIV/AIDS will be launched before the start of civil works. PMU is responsible for monitoring and reporting of GAP key performance indicators, including the participation of women, target works and trainings, and HIV prevention campaigns;
- At least one woman shall be involved in the Supervision Board of a commune (about 1/3 of the members).
### The Project’s Gender Action Plan

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Tasks and Indicators</th>
<th>People in charge</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achievement 1:</strong> Improvement of dam safety and irrigating conditions.</td>
<td>The contractors shall prioritize unskilled labor (through subcontracting); at least 30% of the total labor force is local unskilled ones; Among this 30% local labor, female workers shall be prioritized; Male and female labor will receive the same wages for the same type of work; The Contractors shall not employ children; Those locals wish to work for the project shall register at their villages/hamlets. Then, these registrations shall be provided by the Head of the villages and communes to the Contractors for selection in favor of poor and vulnerable households.</td>
<td>PMU/Project Coordinator shall ensure the record of these terms in the Contract; the list of registered labor shall be submitted by communal officials the Contractor; Communal officials shall ensure the achievement of the targeted objectives. The communal women group shall ensure the involvement of local female workers in the Project.</td>
<td>During construction stage</td>
</tr>
<tr>
<td><strong>Achievement 2:</strong> Enhancement of people’s capacity to make advantages of the Project</td>
<td>At least 30% of women shall participate in agricultural extension courses.</td>
<td>Staff of Provincial PMU, District staff, Communal staff.</td>
<td>During construction stage</td>
</tr>
<tr>
<td><strong>Achievement 3:</strong> Enhancement of awareness on potential social evils of vulnerable objects,</td>
<td>Programmes on HIV/AIDS and human trafficking. Programmes on community-based risk mitigation. Information about risk mitigation will be transferred to the communes and villages affected by the Project</td>
<td>The Provincial and Communal Women’s Union shall organize and host the program (training and preparation of materials) in collaboration with the district/communal health</td>
<td>Monthly, before and during construction stage</td>
</tr>
<tr>
<td>Achievements</td>
<td>Tasks and Indicators</td>
<td>People in charge</td>
<td>Period</td>
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<td>--------------------------------------------------</td>
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<td>especially women and ethnic minorities</td>
<td>using the participatory approach with a focus on the poor and vulnerable households (e.g. ethnic groups, households headed by women, households with elderly and disabled people). The documents and information should be appropriate in terms of language, culture and gender, and especially translated into ethnic languages in the region; Women's Union, the representative of Centre for HIV/AIDS prevention and communal staff shall give training to communicators in each commune/village in the project area. The programs will be implemented at the communes and villages by two communicators (village chief and one member of the Women’s Union). The program will be implemented in the villages and on market-days through distribution of project/program materials and use of loudspeakers</td>
<td>center. The Village’s Women’s Union shall popularize and communicate information. The district/communal Health Centres shall support the communal Women’s Union. Project coordinator shall provide local and international gender experts and specialists on Ethnic Minorities. Gender experts and specialists on EM shall review existing materials and supplement the required ones for the Program.</td>
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<tr>
<td>Program on risk mitigation during project construction stage:</td>
<td>PMU and the contractor will coordinate closely with the health services in communes and districts to implement programs on awareness enhancement and education on disease prevention, diagnosis and treatment for laborers. All programs and documents are</td>
<td>PMU The Contractor Local Health Centre Communal staff The Women’s Union shall perform general coordination for better HIV prevention.</td>
<td>During construction stage.</td>
</tr>
<tr>
<td>Achievements</td>
<td>Tasks and Indicators</td>
<td>People in charge</td>
<td>Period</td>
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<td>built with integration of gender issues, including vulnerability and needs of men and women.</td>
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<td>The Contractor shall:</td>
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<tr>
<td>Implement awareness enhancement programs workers and communities, including education and communication on HIV infection and preventive measures.</td>
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<td>Provide free consulting services and encourage employees to do HIV tests so that they all know about their health status.</td>
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<tr>
<td>Support the access to health services and encourage HIV-infected patients to admit their status;</td>
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<td>Provide medical equipment (free condoms) for workers in the camps;</td>
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</table>

**Project Management**

Guidelines on Gender and Development and Education shall be provided for PMU staff, local agencies and Contractors.

All capacity enhancement activities shall include the involvement of women and ethnic minorities.

- Project implementation consultant
- PPMU

During design and initial implementation stages
APPENDIX 5: GRIEVANCES AND REDRESS MECHANISM

Complaints relating to any matter of the Project will be settled through negotiations aimed at achieving consensus. A complaint will pass through three stages before it can be filed to the court. The Enforcement Body will incur all administrative and legal fees relating to complaint handling.

The complaints relating to the Project shall be settled in compliance with Article 138 of the Land Law 2003; Article 28 of the Law on Complaints; Article 63 and 64 of Decree No.84/2007/ND-CP; Clause 2 of Article 40 of Decree No.69/2009 and regulations on complaints in Decree No.75/2012/ND-CP dated 20/11/2012. According to Clause 2 in Article 138 of the Land Law 2003 and 2013:

(i) In case of complaints against administrative decisions and administrative actions on land management first settled by the Chairmen of the People's Committees of districts, towns and cities under the province, without contentment of the complainant, the complaints can be filed to the People's Court or appealed to the Chairmen of the People's Committees of provinces and centrally-run cities. In case of appeal to the Chairmen of the People's Committees of provinces and cities under central authority, the decision of the Chairmen of the People's Committees of provinces and cities under central authority is the final one.

(ii) In case of complaints against administrative decisions and administrative actions on land management first will be settled by the Chairmen of the People's Committees of districts, towns and cities under the province, without contentment of the complainant, the complaints can be filed to the People's Court.

(iii) The time limit for complaints against administrative decisions and administrative actions on Land Management is thirty (30) days after the date of receipt of the administrative decision or being informed of that administrative decision. Within 45 days from the date of receipt of the first complaint resolution decision, the complainant, if disagree, can make an appeal to the state authority or the People's Court.

In terms of complaint settlement, in Law on Complaints, Article 14: Rights and obligations of the person competent to settle first-time complaints:

(i) The person competent to settle first-time complaints should:
   a) Ask the complainant, relevant agencies, organizations and individuals to provide information, documents and evidence within 07 days of the request as a basis for complaint settlement;
   b) Determine to employ or cancel the emergency measures as defined in Article 35 of this Law;

(ii) The person competent to settle first-time complains should perform the following obligations:
   a) To receive the complaint and issue a notice in writing to the complainant, agencies, organizations, or individuals entitled to appeal and the state inspection agencies at
the same level of acceptance of resolving complaints against administrative decisions and actions;
b) To settle the complaints against administrative decisions and actions if required by the complainant;
c) To open a dialogue with the complainant and agencies, organizations and individuals concerned;
d) To decide complaint settlement and be responsible before the law for settlement results. In case of complaints from authorized agencies, organizations and individuals, the results shall be notified to agencies, organizations and individuals in accordance with law;
e) To provide information, documents and evidence relating to the complaint for the complainant when they are required by the complainant for second-time settlement or appeal to the People’s Court.

(iii) To compensate for first-time settlement and damages due to administrative decisions and actions in accordance with regulations on the State responsibilities.

(iv) The person competent to settle first-time complaints should perform their rights and obligations as stipulated by Law.

In terms of announcement of complaint settlement decision: In Article 12 of Decree No.75/2012/ND-CP dated October 3rd, 2012 of the Government detailing the implementation of some articles of the Law on Complaint.

(i) Within 15 days from the date of decision of complaint settlement, the person competent to settle the complaint for the second time shall announce the complaint settlement decision by one of the forms specified in Clause 2 in Article 41 of the Law on Complaints.

(ii) In case of announcement at a meeting, the attendees of the meeting must include: the person issuing the complaint settlement decision, the complainant or their representatives, the person subject to complaint and agencies, organizations and individuals concerned. Before conducting a public meeting, the person competent to settle complaints must send a notice to agencies, organizations and individuals involved 3 days in advance.

(iii) The announcement of complaint settlement decision shall be made on the mass media (television, radio, printed and electronic newspaper). If the agency of the person competent to settle complaints has their own portal or website, the complaint settlement decision should be made public on this portal or website. The minimum number of announcement is 02 times on radio, television, and printed publications. The period of announcement on electronic publications, portals or websites should be at least 15 days from the date of notification.

(iv) In case of notice at the office or the Reception Room of agencies and organizations competent to settle complaints, the period for the notice of complaint settlement decision to be posted up is at least 15 days.
The procedure for complaint settlement consists of 4 stages as below:

(i) **The first stage in the Communal People’s Committees**: Households affected can file their complaints to any member of the CPCs, possibly through the village chiefs or directly to the CPCs in writing. The mission of the CPC officials or village chiefs is informing the entire CPC the complaint. Then, the CPC will hold a private meeting with the households affected and sign the complaint decision within 10 days. The CPC secretary shall be responsible for compiling and filing documentation of all complaints handled by the CPC. The duration of first-time settlement of complaints shall not exceed 30 days from the date of signing the complaint decision; for complicated cases, this period could be extended but not exceed 45 days from the date of receipt of the complaint. In remote regions difficult for travelling, the time limit for complaint settlement is no more than 45 days from the date of acceptance; for complicated cases, this period could be extended but not exceed 60 days from the date of acceptance (according to Article 28, Law No.02/2011/QH13 dated 11/11/2011). If the complaint is not resolved for the first time or the complainant is not content with the settlement results from the date of receipt of the first-time settlement decision, they have the right to file the complaint for second time to the People's Court or the District People’s Committee.

(ii) **The second stage in the District People’s Committees**: According to Article 63 of the Decree No.84/2007/ND-CP of the Government, the procedure for complaint settlement against administrative decisions and actions of the Chairman of the District People's Committee is: (i) Within ninety (90) days from the date of issuance of administrative decisions and actions by the Chairmen of DPCs regarding land management stipulated in Article 162 of Decree No.181/2004/ND-CP that people of relevant rights and obligations disagree with, complaints can be filed to the DPCs; (ii) the Chairmen of the DPC shall settle the complaint within the period of 30 days from the date of signing complaint decision. In remote areas difficult for travelling, the duration for settlement is no more than 45 days from the date of acceptance; for complicated cases, this period shall be expended but not exceed 60 days from the date of acceptance; (iii) The settlement decision of the Chairman of the DPC shall be publicly available and sent to the complainant and other people of relevant rights and obligations; (iv) Within forty-five (45) days from the date of receipt of the settlement decision of the Chairman of the DPC that the complainant does not agree with, the appeal can be filed to the People's Court or the provincial People's Committee. The time limit for appeal may be longer, but not more than 60 days from the date of receipt of the decision for complex cases. In remote areas difficult for travelling, this period is no more than 60 days from the date of acceptance, and no more than 70 days for complicated cases (according to Article 37, Law on Complaints No.2/2011/QH13 dated 11/11/2011); (v) The body accepting the complaint shall record this in the Complaint Settlement Logbook.

(iii) **The third stage in the Provincial People’s Committee**: The procedure for complaint settlement against administrative decisions and actions of the Chairman of the
Provincial People's Committee is (i) Within thirty (30) days (or 45 days for complicated cases) or within 45 days for remote areas (or 60 days for the complicated cases) from the date of issuance of administrative decisions and actions by the Chairman of the PPC regarding land management stipulated in Article 162 of Decree No.181/2004/ND-CP that people of relevant rights and obligations disagree with, the complaint can be filed to the PPC; (ii) The Chairman of the PPC shall settle the complaint within the time limit stipulated in Law on Complaints; (iii) The complaint settlement decision of the PPC shall be publically available and sent to the complainant and other people of relevant rights and obligations; (iv) Within forty-five (45) days from the date of receipt of the settlement decision from the Chairman of the PPC that the complainant does not agree with, the appeal may be filed to the People's Court. The time limit for appeal may be longer but not more than 60 days from the date of acceptance for complicated cases. In remote areas difficult for travelling, this period shall not exceed 60 days from the date of acceptance, and 70 days for complicated cases; (v) The body accepting the complaint shall record this in the Complaint Settlement Diary.

(iv) The final phase, the arbitration by the Court: Within forty-five (45) days from the date of receipt of the settlement decision by the Chairman of the PPC that the complainant is not satisfied with, an appeal shall be filed to the People's Court (according to Article 64 of Decree No.84.2007/ND-CP). During the processing time, the land acquisition decision is still implemented. If the state authority handling the complaint concludes that the land acquisition is unlawful, the state agency issuing land acquisition decision shall cancel their decision and make compensation for damages (if any) caused by land acquisition decision. If the land acquisition is considered as lawful, the person being acquired land shall abide by the decision. Within 30 days from the trial date, the Council on Resettlement and Compensation shall pay the affected households the amount specified by the Court. If the land acquisition is concluded as legal by the Court, the person with acquired land shall comply with the decision (according to Article 54 of Decree No.84/2007/ND-CP).
APPENDIX 6: INFORMATION ANNOUNCEMENT AND SOCIAL AND MONITORING ACCOUNTABILITY

1. Consultation and announcement

The main objectives of information announcement and public consultation are to ensure the participation of affected communities, households, local governments and organizations concerned in sharing the Project information, consulting the selection of technical plans, planning impacts on land, income and assets on land... The announcement is an important contribution in accelerating the Project progress during implementation and preparation, as well as when the project is put into operation with the consensus of the community, government, and PMU. This will minimize the possibility of conflicts and other risks and increase the investment efficiency and social significance of the Project.

The public consultation and announcement should ensure:

- The local authorities as well as the representatives of the people affected shall be involved in the project planning and decision making process. The PMU shall work closely with the commune/district during the implementation of the Project. The involvement of the people affected in the implementation process shall be remained by asking the commune/district to invite the representatives of the affected people to be a part of the Council on Compensation and Resettlement as well as in resettlement activities.

- All information about the items and activities planned for the Project should be shared to the people affected.

- The demands and priorities of the affected people, as well as their responses to the proposed policies and activities, should be collected.

- The affected people should be fully informed of the decisions influencing directly their income and lives, and can be involved in activities and making decisions on issues directly affecting them.

- The transparency in all activities relating to land acquisition, compensation, resettlement and rehabilitation should be ensured.

For the World Bank, those people affected by the project should be fully informed and consulted on resettlement and compensation plans. Consultation is the starting point for all activities related to resettlement. The people affected by resettlement may be afraid that their livelihoods and community relations can be affected, or their rights can not be guaranteed. Being involved in resettlement planning and management helps to alleviate these fears and bring the affected people the opportunity to participate in decisions that affect their lives. The implementation of resettlement without consultation may lead to an inappropriate strategy and ultimate ineffectiveness. Without consultation, the affected people may have negative reactions to the project, causing social problems, significant delay or even cancellation in completion of goals, thereby increasing the costs. As a result, with consultation, the initial resistance can be translated into the constructive participation.
For Vietnam, a further key step in strengthening democracy at grass-roots level is the Directive No.30-CT/TW of the Central Committee of the Communist Party of Vietnam in "Building and implementing regulations on grassroots democracy" and the Decree No.79/2003/ND-CP also on this issue. The key point of this legislation is the famous slogan, which is "People know, people discuss, people do and people inspect." The Ordinance No.34/2007/PL-UBTVQH11 has addressed the matters that should be consulted by local governments and communities before decision-making by the authorities, including building compensation and resettlement plans relating to the project and works in the commune/ward. The Clause 2 in Article 39 of the Law on Land 2003 requires the announcement of resettlement issues such as reasons, land acquisition plans, relocation plans, overall compensation plans, and land clearance to the people affected.

Thus, consultation and participation is an innovation in the implementation of projects in Vietnam. This policy will address the shortcomings in the implementation of the projects, as both the locals and the person in charge of project implementation are inexperienced in this field. The following points should be noted to encourage the participation of stakeholders in the consultation process of the project:

- Identify and attract all stakeholders, especially people living in the project area and those affected (men, women, the poor, ethnic minorities...), in the process of consultation and participation;

- Develop participatory strategies for Project planning, implementation, monitoring and evaluation.

- Develop the topics and content needed for promotion and popularization campaigns, as well as negotiation procedures for the affected people on their benefits.

- Attract stakeholders in decision making at all stages of the project (e.g. design plans, compensation methods, implementation schedule, etc...).

- Establish a schedule for completion of activities such as campaigns to provide information, the extents and forms of compensation, benefits, location and relocation plan.

- Develop procedures for complaint settlement.

The public consultation should be regularly carried out for the units in charge of preparation and detailed design of the project categories. This helps to ensure the participation of communities in the proposed designs and limit the adverse impacts on the community. This also helps works to be friendlier with the community and users.

The consultation should also be performed with related parties, including the units to be in charge of management and operation of works to ensure that they are consulted and commented on the designs.

During the construction stage, the Project owner should announce promotion in mass media regarding construction activities and expected schedule, measures to support the people affected
and the procedure for receipt of feedbacks from the community. The affected persons shall be informed of the Project policies and procedures to ensure no many changes in their future lives. In case of any questions about the Project, they can inform and obtain the support from the PMU.

The content and method of public consultation/announcement is as follows:

<table>
<thead>
<tr>
<th>Items</th>
<th>Method of public consultation/announcement</th>
<th>Period</th>
<th>Person in charge</th>
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<tbody>
<tr>
<td>1. Detailed design drawings: Alignment alternatives</td>
<td>Meeting with the government of the ward/commune and relevant units; the representatives of the affected households.</td>
<td>Survey and design stages</td>
<td>the Consultant, PMU</td>
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<tr>
<td>2. Land acquisition, clearance and compensation.</td>
<td>The ward/communal staff, together with PMU staff, shall consult with APs for initial assessments. Land acquisition and compensation plans shall be developed and discussed with APs before submission to authorities for decision. Policy announcement and explanation shall be made in meetings with APs.</td>
<td>Prior-implementation stage</td>
<td>the Communal People’s Committee, PMU</td>
</tr>
<tr>
<td>3. Project implementation progress, monitoring mechanism and accountability</td>
<td>Meetings in residential blocks, posters and notices in public</td>
<td>The commencement stage and during implementation stage</td>
<td>the Communal People's Committee, PMU</td>
</tr>
<tr>
<td>4. Employment and wages of local labor.</td>
<td>Meeting between the Construction unit, local authorities/supervision board and the local</td>
<td>Prior-construction stage</td>
<td>The construction contractor, local authority</td>
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</table>
2. **Social accountability**

The announcement of the proposed plans of the Project to the affected people and stakeholders during community consultation and field survey by the social assessment consultants is to make a paradigm for continuing public information during the project implementation. Moreover, as required at all public meetings, the affected always wish for meetings to regularly exchange information with PMU at the headquarters of CPC where the community will suffer from impacts during project implementation. Therefore, reports on resettlement plans and environmental management plans should reflect the responsibility of PMU in ensuring the regular announcement of information to the public.

In addition to regular meetings between the PMU and the affected communities in CPC offices, the public meetings in all communes where public consultation has been conducted have identified the need to establish the tight connection for easy and quick contact with the PMU. The best way is to provide the phone number and address of the PMU in charge in all locations of the Project’s items and the headquarters of all the communes of the entire Project’s components.

3. **Participatory supervision**

In order for the project components to ensure its efficiency and necessity, it is necessary to have a monitoring plan with the participation of stakeholders such as the Department of Natural Resources and Environment, Department of Construction, Department of Planning and Investment, Department of Transport ... After completion, the direct management and operation agency/unit of the project items should be involved in the design and construction processes.

Together with the independent monitoring unit of the project, there should have a community-level supervision division to monitor project activities, especially activities related to resettlement, sanitation and the construction of various items. The supervision division will include representatives of local authorities, representatives of organizations such as the Women's Union, Fatherland Front, Veterans, Association, representatives of local people... This The supervision division in collaboration with independent monitoring unit of the Project will monitor the project activities based on indicators of social safety. Indicators of rehabilitation, production, environmental sanitation, traffic will be built to serve the monitoring plan of the Project. The grasping reality will help community supervision division report information related to the project

<table>
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<tr>
<th>Potential adverse impacts and mitigation measures</th>
<th>Combined with Item 2 and 3 above</th>
<th>Prior and during implementation stage.</th>
<th>PMU, construction contractor, the communal people’s committee</th>
</tr>
</thead>
</table>
progress, problems arisen during the project implementation to the PMU for promptly actions. The responsibility of this division is to collect feedback from the people and competent authorities as well as from the PMU. At the same time, people are also involved in the supervision, safety guarantee and sanitation in the construction phase.

The Community supervision division should be involved in the training plan on strengthening monitoring and evaluation of project activities, training on monitoring activity skills as a part of the participatory monitoring plan of the Project.

It is noted that the Resolution 80/CP on community supervision for construction works in localities should be applied.
APPENDIX 7: RESULTS OF QUANLITATIVE SURVEY AND CONSULTATION

Consultation on social impact assessment

Consultation on social impact assessment was held in parallel with consultations on environmental impact assessment.

The extensive consultation with adequate information about the project was made March 21, 2015 in Ba Xa village, An Sinh commune, Dong Trieu district, Quang Ninh Province.

Consultation subjects:

+ Local authorities: Ms. Phung Thi Ngoan – Village head
+ No. of participants: 20
+ Ethnic Minority: 0
+ Date of consultation: 21/03/2015

Consultation objectives:

Contents of the consultation: Information on the project/sub-projects (general information about the project, scope of the project, project components, positive and negative impacts and mitigation measures, project implementation plan); (ii) The existing livelihoods of the people; (iii) Construction of new rural, rural infrastructure (transport and irrigation, education, health and water supply, rural environment), outcomes and barriers; (iv) Use of fertilizers and pesticides; (v) The awareness of people about the project; (vi) resettlement policy, grievance mechanisms of project and expectations of affected people regarding compensation and resettlement.

Consultation content:

- Safety policy on social environment of the project;
- The potential impacts on society may arise during project implementation;
- The role and interests of the parties, including community participation in project implementation as well as monitoring and supporting the implementation of the project;
- Feedback Mechanism from the community during project implementation;
- FAQ questions of the people involved in the project.

Summary:

In general, local authorities as well as local people were aware of the necessity of the project in the prevention, and reduction of natural disasters for the local area, as well as the benefits of stable irrigation water, and expanded surface area for aquaculture. The implementation plan was approved by local authorities and people. The project perfectly meets the needs and aspirations of local people.
- The construction and upgrading of works are to improve the efficiency of dam safety, stabilize the life for local people.

- The affected households want to be provided with information on the project progress.

- The affected households wish to receive compensation fully and transparently at replacement cost for lost assets, and at the market prices for temporarily affected crops.

- Both men and women are involved in the local organizations and communities, and contribute their recommendations related to the project, therefore, the gender issues are guaranteed.

- No ethnic minority in the project area, so no impact on ethnic minority. and children in the project area.

- No trafficking of women and children in the project area.

- Affected people understand the positive impacts and benefits from the project for the local people, so they completely agree with the implementation of the project and hope the project to be implemented soon.
ANNEX 8. SOME PICTURES OF COMMUNITY CONSULTANCY