# CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>1.1</td>
</tr>
<tr>
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</tr>
<tr>
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<tr>
<td>2.5</td>
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<tr>
<td>2.6</td>
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<td>3</td>
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<td>3.1.2</td>
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</tr>
<tr>
<td>3.1.5</td>
</tr>
<tr>
<td>3.1.6</td>
</tr>
<tr>
<td>3.1.7</td>
</tr>
<tr>
<td>3.2</td>
</tr>
<tr>
<td>3.3</td>
</tr>
</tbody>
</table>
4 IDENTIFICATION OF SOCIAL IMPACTS ............................................................... 4-1
  4.1 Project Impacts .......................................................................................... 4-1
  4.2 Analysis of the Social Impacts .................................................................... 4-2
5 PAK BENGHPP COMPENSATION PRINCIPLES .............................................. 5-1
6 INSTITUTIONAL ARRANGEMENT FOR SMMP .............................................. 6-1
  6.1 National Environmental and Social Committee ........................................... 6-1
  6.2 Provincial Environmental and Social Committee ........................................... 6-1
  6.3 Project Environmental and Social Unit ........................................................ 6-2
  6.4 Project Environmental Management Office and Social Management Office .... 6-4
  6.4.1 Social Management Office .................................................................... 6-4
7 CONSULTATION AND GRIEVANCE REDRESS .............................................. 7-1
  7.1 Consultation and Involvement of Villagers .................................................... 7-1
  7.2 Grievance Redress ...................................................................................... 7-1
  7.3 Disclosure Information .................................................................................. 7-2
8 SMMP IMPLEMENTATION MONITORING AND EVALUATION ................. 8-1
  8.1 Monitoring Requirement .............................................................................. 8-1
  8.2 Monitoring Indicators .................................................................................. 8-1
9 ESTIMATED BUDGET FOR SMMP ............................................................... 9-1
10 IMPLEMENTATION SCHEDULES ................................................................. 10-1
11 REPORTING ................................................................................................... 11-1
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 4.1-1: Summary of the Potential Project Impacted Villages</td>
<td>4-1</td>
</tr>
<tr>
<td>Table 4.1-2: Summary of Project Potential Impacts and Mitigation Measures and Responsibilities</td>
<td>4-2</td>
</tr>
<tr>
<td>Table 5-1: Project compensation</td>
<td>5-1</td>
</tr>
<tr>
<td>Table 9-1: The total yearly budget for the SMMP</td>
<td>9-1</td>
</tr>
<tr>
<td>Table 9-2: Summary estimated cost of the SMMP for PakBengProject</td>
<td>9-3</td>
</tr>
<tr>
<td>Table 10-1: Proposed work schedule for SMMP implementation</td>
<td>10-2</td>
</tr>
<tr>
<td>Table11-1: Summary of Reporting Program</td>
<td>11-2</td>
</tr>
</tbody>
</table>
**LIST OF FIGURES**

<table>
<thead>
<tr>
<th>Figure Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig. 2.1-1: Mainstream Dams on the Mekong River</td>
<td>2-1</td>
</tr>
<tr>
<td>Fig. 2.1-2: Location of Pak Beng Hydropower Project</td>
<td>2-2</td>
</tr>
<tr>
<td>Fig. 2.3-1: Navigation Lock Layout</td>
<td>2-3</td>
</tr>
<tr>
<td>Fig. 2.3-2: Sluice Gate</td>
<td>2-4</td>
</tr>
<tr>
<td>Fig. 2.3-3: Powerhouse</td>
<td>2-4</td>
</tr>
<tr>
<td>Fig.2.4-1: Construction Layout Plan</td>
<td>2-5</td>
</tr>
<tr>
<td>Fig. 6.4-1: Components of the EMO/SMO</td>
<td>6-6</td>
</tr>
<tr>
<td>Fig. 6.4-2: Organisation of the Resettlement and Compensation Section</td>
<td>6-8</td>
</tr>
<tr>
<td>Fig. 6.4-3: Structure of the Social Development Section</td>
<td>6-9</td>
</tr>
<tr>
<td>Fig. 6.4-4: Structure of the Social Development Section</td>
<td>6-12</td>
</tr>
<tr>
<td>Fig. 6.4-5: Institutional Arrangement for SMMP</td>
<td>6-13</td>
</tr>
</tbody>
</table>
# List of Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal care</td>
</tr>
<tr>
<td>AP</td>
<td>Affected Person</td>
</tr>
<tr>
<td>ARI</td>
<td>Acute Respiratory Infection</td>
</tr>
<tr>
<td>°C</td>
<td>Degree Celsius</td>
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<tr>
<td>CA</td>
<td>Concession Agreement</td>
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<tr>
<td>CDB</td>
<td>Convention on Biological Diversity</td>
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<tr>
<td>CDR</td>
<td>Crude Death Rate</td>
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<td>CHAS</td>
<td>Center for HIV, AIDS and STI</td>
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<tr>
<td>CIA</td>
<td>Cumulative Impact Assessment</td>
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<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species</td>
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<tr>
<td>DHO</td>
<td>District Health Office</td>
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<tr>
<td>DOE</td>
<td>Department of Electricity</td>
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<tr>
<td>D/S</td>
<td>Downstream</td>
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<tr>
<td>EA</td>
<td>Environment Agency</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EM</td>
<td>Environmental Manager</td>
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<td>EMMP</td>
<td>Environmental Management and Monitoring Plan</td>
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<td>EMO</td>
<td>Environment Management and Monitoring Office</td>
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<td>EMU</td>
<td>Environmental Management Unit</td>
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<td>ESMI</td>
<td>Environmental/Social Monitoring and Inspection Unit</td>
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<td>EPL</td>
<td>Environmental Protection Law</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>GOL</td>
<td>Government of Lao People’s Democratic Republic</td>
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<td>ha</td>
<td>Hectares</td>
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<td>HPP</td>
<td>Hydroelectric Power Project</td>
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<td>IMR</td>
<td>Infant Mortality Rate</td>
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<td>IPD</td>
<td>In Patients</td>
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<td>HC</td>
<td>Health Center</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>IEE</td>
<td>Initial Environmental Examination</td>
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<tr>
<td>km</td>
<td>Kilometers</td>
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<tr>
<td>km2</td>
<td>Square kilometers</td>
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<tr>
<td>kpm</td>
<td>Kip per person per month</td>
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<tr>
<td>LB</td>
<td>Left Bank (of the Mekong River)</td>
</tr>
</tbody>
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LNFC  Lao National Front for Construction
LWU   Lao Women's Union
MAF   Ministry of Agriculture and Forestry
masl  Meters above sea level
MIC   Multiple Indicator Cluster Survey
MOH   Ministry of Health
MONRE Ministry of Natural Resources and Environment
MRC   Mekong River Commission
MW    Megawatts
NBCA  National Biodiversity Conservation Areas
NCG   National Consulting Group
NMRC  National Mekong River Commission
NSC   National Statistical Center
NCHS  National Center for Health Statistics
PAP   Project Affected People
PESMC Provincial Environment and Social Management Committee
RAP   Resettlement Action Plan
RB    Right Bank
RS    Resettlement Section
SMO   Social Management and Monitoring Office
SDS   Social Development Section
SIA   Social Impact Assessment
STI   Sexually Transmitted Infection
TB    Tuberculosis
TOR   Terms of Reference
NTFP  non-timber forest products
TWh   Terawatt Hour
UCQ   Upstream, Construction/Quarry
UN    United Nations
UNICEF United Nations Children's Fund
WB    World Bank
WHO   World Health Organization
WREA  Water Resource of Environmental Administration
1 INTRODUCTION AND OBJECTIVES

1.1 THE PROJECT

Under decree 112/PMO of Laotian Prime minister dated 16 February 2011, a Social Management and Monitoring Plan (SMMP) is required to be produced as a separate report from the Social Impact Assessment (SIA). Currently, the Ministry of Natural Resources and Environment [which former was Water Resource and Environmental Agency (WREA)], is still in the process of drafting guidelines for the writing and implementation of SMMPs for development projects.

Pak Beng Hydropower Project is one of 12 Projects being studied that are located in the Mekong Mainstream. This Project is being studied extensively including a technical feasibility study, environmental and social impact assessments.

1.2 OBJECTIVES OF THE SOCIAL MANAGEMENT AND MONITORING PLAN

This report is developed from the Social Impact Assessment (SIA) study. Public consultations have been carried out with the local community to gather the data and to learn of their initial reactions to the project as prescribed by the Government of Lao PDR which is central to the preparation of environmental and social assessments for hydropower projects. The principles are stated in the Lao national policy (561/NPA), which encourages involvement of stakeholders on the local level to ensure that benefits reach the people concerned. The recommendation of appropriate and sufficient mitigation measures as well as management plans are required in order to make sure all anticipated or unforeseen impacts caused by the project have been taken into account and included in the project design.

1.3 SMMP PROCESS

As part of the outcomes of the SIA study, NCG is required to prepare a Social Monitoring and Management Plan. The overall objective of the SMMP is to improve the welfare of the people living in the Project area who might be adversely affected by the Project. Therefore, it is important that the SMMP is developed under the following guiding principles:

- Minimize the resettlement of the Project’s Affected People (PAP).
- Provide adequate funding and support from the project to ensure that the living standard of the Project’s affected people are restored to at least the same level as prior to the Project development.
- Allow PAPs to participate in the design, planning and implementation of the Resettlement Action Plan (RAP).
- Identify gender and ethnic group concerns and include their specific needs and perspectives to be included in all components, strategies and planned activities.
• Maintain the social and cultural cohesion of villages to minimize cultural and livelihood disturbance.
• Provide adequate livelihood restoration activities and infrastructure to minimize livelihood disturbance.
• Have a transparent methodology for all planning, implementation and compensation tasks.

SMMP will also include:
• Institutional responsibilities.
• Budget estimation.
• Time and duration schedules.
• Internal and external monitoring plan.
2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Pak Beng is located in the upper reaches of the Mekong River in Pak Beng District in the Odomxay Province of northern Laos. The dam site is approximately 14 km upstream from Pak Beng County and about 157 km from Muang Xai, the capital of Odomxai Province which is 575 km by road from Vientiane and 112 km from the border with China. National highway No.13 goes from Vientiane to northern Laos and links through Muang Xai to Mohan Town in China.

Fig. 2.1-1: Mainstream Dams on the Mekong River
2.2 PROJECT FEATURES

The Pak Beng Hydropower Project will be mainly for power generation and will be a run-of-the-river dam. The Major structures planned are water retaining structures, 14 sluice gates, a power house, a 500 ton navigation ship lock and a fish pass. The normal water level will be 340 masl with a dam crest level of 346 masl; the dam height will be 69 m with a dam crest length is 894.5 m. The installed capacity should be 912 MW with an average annual energy output of 4,846 GWh. There are 16 turbines of 57 MW each in the design.

Most of the electricity produced is meant to be transmitted to the Mae Moh Substation in Thailand through 500 kV transmission lines; this is 230 km away from the Pak Beng HPP; an outgoing transmission line of 230 kV will be connected to a local substation of about 110 km in distance.
2.3 PROJECT COMPONENTS

The powerhouse and fish pass will be located on the left main river channel whereas the navigation ship lock, flood discharge and sand flushing sluice gates will be on the right bank. A partition wall is constructed between the powerhouse, flood discharge and sand flushing sluice gates.

2.3.1 Retaining structure

The length of the entire structure will stretch 894.5 m across the river with a crest elevation of 346 m and a height of 69 m.

2.3.2 Reservoir

The construction of the Pak Beng Hydropower Project will create an upstream reservoir area of about 81 km² at a normal water level of 340 masl, a reservoir volume of 780 million m³ and a back water length with a normal water level of 97 km.

2.3.3 Navigation Ship Lock

The navigation structure is a one-way, one-step ship lock, to be arranged on right bank bottom land and to the right side of the discharging sluice gates. It will consist of a ship lock and access channel. The ship lock chamber’s effective dimension is 120 m x 12 m x 4 m (L x W x H). The working head of the ship lock is as high as 32.55 m. Water conveyance galleries are set along both side walls and a decentralized water conveyance system is constructed on the bottom of bay. The ship lock is designed to accommodate the maximum tonnage of a navigable ship of 500 tons. The annual tonnage of ships passing this ship lock should be 1.5 million tons per year.

![Fig. 2.3-1: Navigation Lock Layout](image)
2.3.4 Sluice Gate

To minimize reservoir sediment and reduce land inundation impact of reservoir tail, the 14-15 x 23 m surface flow flood releasing and sand flushing sluice gates are provided in the right bank. The weir crest elevation is 317 m / 313 m. There are 7 low level outlets of 2.5 x 6 m inside with the elevation of inlet bottom slab at 285.6 m.

![Sluice Gate Diagram](image)

Fig. 2.3-2: Sluice Gate

2.3.5 Power House

The powerhouse dam section is arranged on the main river channel on the left of the riverbed. The 16 x 57 MW bulb turbine generating units are in the main powerhouse. The span of the main powerhouse is 22.5 m and the distance between units is 20.5 m. The unit intake bottom elevation is 288.9 m; the unit installation elevation is 297.2 m and the generator floor elevation is 317.2 m. The auxiliary powerhouse is located at the downstream side of the main powerhouse.

![Powerhouse Diagram](image)

Fig. 2.3-3: Powerhouse
2.3.6 Fish pass
The fish pass will be arranged to mitigate the block of migratory fish pathway. The clapboard step fish ladder (or partitioned plate step fish ladder) is adopted for the passing fish facility. It is arranged on the left bank with a bottom slope of about 2.5%. The fish pass dimension is 5 m x 1,800 m. (W x L).

2.4 PROJECTED AFFECTED AREAS

2.4.1 Inundated Area
The project will create a reservoir capacity of 780 million m³ at a normal water level 340 masl. The inundated area will cover about 97 km long in Lao.

2.4.2 Construction Area
The land area in the vicinity of dam site on both the left and right bank will be used for construction camps, office and living facilities, warehouses, E&M equipment assembly yard, auto and machinery repair workshop, machinery depot, concrete batching plant, quarry sites disposal areas, switchyard and roads.

2.4.3 Downstream Area
The village just located in downstream area will be impacted by water flow and water level fluctuation due to dam operation.

2.5 DAM SAFETY
The area is located in a moderate seismic hazard zone having a 20% probability of a Degree VII earthquake. The dam safety design for the Pak Beng dam is to resist ground peak acceleration of 0.157 g or a Degree VII earthquake.

2.6 PROJECT COST
The estimated construction cost of the Pak Beng Hydropower Project is approximately 2.7 Billion USD.
2.7 PROJECT IMPLEMENTATION SCHEDULE

The project implementation time will be divided into 3 periods, preparation, construction and project completion.

- Preparation 20 months
- Construction 25 months
- Completion 18 months
3 IDENTIFICATION OF POLICY FRAMEWORKS FOR SMMP

In recent years, Lao PDR with assistance from international funded projects has reviewed and updated legislation on Environmental and Social management. Below are some selected policies and legislations framework that is relevant to this SMMP.

3.1 LAWS

3.1.1 Environmental Protection Law

The Lao Environmental Protection Law (EPL), disseminated in 1999, established a framework for environmental management of environmental resources with the objective of preserving and facilitating the sustainable use of natural resources. The Science Technology and the Environment Agency (STEA) is responsible for the implementation of EPL. Other ministries issue guidelines for implementing provisions but ultimately STEA issues the environmental certificate.

The basic precept of the EPL is that all persons or organisations residing in Lao PDR have an obligation to protect the environment. People or parties who cause damage to the environment are responsible for the impact under the EPL. Relevant Sections of the EPL include:

- **Article 5:** The EPL stipulates that natural resources, raw materials and energy shall be used in an economical manner to minimise pollution and waste and to allow for sustainable development.

- **Article 8:** All development projects and activities that have the potential to affect the environment shall require an Environmental Impact Assessment (EIA).

- **Article 22:** It is the obligation of all organisations to control pollution in accordance with the Environmental Quality Standards set forth in regulations by the various agencies involved.

Relevant Governmental Decrees, Regulations and Standards include:

- The Implementing Decree of (2002) provides the legal tool for implementation of the law.

- The Environmental Management Standard (2010) stipulates the minimum requirements to develop a project.

WREA has also developed a set of regulations for conducting the Environmental Impact Assessment (EIA) of proposed hydropower projects (2000, 2001). These regulations and standards established general impact assessment requirements, including a timing of the EIA in the project development cycle. They stipulate detailed project screening, initial Environmental Examination and Environmental Impact Assessment requirements, including content and format of reporting, and approval of the report.
3.1.2 Forestry Law (2007)

The Forestry Law defines the principles and regulations on the use, management, protection, conservation, regeneration, utilization and conversion of forest resources. The aim is to make forest resources a sustainable support to national, economic and social development while ensuring the protection and conservation of watersheds, guarding against soil erosion, protecting plant and wildlife species and the environment.

Three categories of forests were identified: Protection Forest, Conservation Forest (or National Biodiversity Conservation Areas) and Production Forest.

Other aspects of the forestry law are as follows:

- Implementation responsibilities of the Ministry of Agriculture and Forestry (MAF) at the national level, provincial and district forestry offices, including responsibility for issuing land-use certificates at the district level.

- That forest and forest land can be converted to other uses (e.g., for national infrastructures projects such as transmission line rights-of-way, etc.) when necessary and if in the public interest, and subject to the approval by the government representative under the proposal from the responsible authorities.

- An individual or organization given permission to convert forest to another use is responsible for payment of a conversion fee, land reclamation and tree planting.

- Provision for allowing long practiced activities such as collecting wood for fences and fuel, non-timber forest products (NTFP), hunting and fishing for non-protected species for household consumption, and other customary uses.

- Provision for setting up a fund for activities such as protection and conversion of forests, tree planting, and forest regeneration to protect and conserve watersheds, the environment and wildlife.

The Amended Forestry Law also states that:

- Compensation is based on the areas (ha) of forest and/or volume of timber (m3) of a given class or species of tree that will be cut down. Compensation is only paid for timber removed from private forestry plantations. No compensation is paid for timber removed from natural forests on public lands. Nor is any compensation paid for removal of any kind of natural Non-timber Forest Products (NTFPs), except for villagers’ planted NTFPs such as bamboo, etc.
• There is no requirement to replant trees on degraded land located away from a transmission line corridor, as compensation for removing trees to create a transmission line right-of-way. Such forms of compensation only apply to reservoir clearing projects, where it is necessary to plant trees to stabilize slopes that could otherwise fail through a process of mass wasting.

• Compensation rates range from US$23/m³ for lesser qualities and grade of timber species, up to a maximum of US$999/m³ for superior qualities of timber species. These rates are established by the Government of Lao PDR (GOL) as a schedule within regulations under the Forestry Law.

• During the alignment survey, the Department of Forestry in collaboration with Provincial or District forest office staff will assess the volume of natural or plantation forest that will be removed by a project. An assessment report is prepared and sent to the Department of Forestry in Vientiane, which is responsible for evaluating requests for timber removal and providing approvals.

• Timber removed from a project infrastructure site by a proponent will be sold according to the regulations concerned under the Industry and Commerce Sector. If timber is removed from a private tree plantation, the Project Proponent is responsible for compensating the owner of the plantation.

• During transmission line construction, the Provincial Forestry Section or District Agriculture and Forestry staff will demarcate the boundary along the two sides of the line as well as scale and mark all timber cut from the right-of-way. Fines will be levied against the contractor for any timber that is cut and does not receive a timber mark from the forestry department. This is aimed at preventing illegal logging.

The Project Proponent is responsible for paying for all costs incurred by the Department of Forestry, including costs of preparing timber cutting assessments during alignment surveys, and timber scaling and marking during construction.

3.1.3 Water Law (1996)

The Water Law is intended to assure the sustainable use of water. The Water Resources Committee under the Prime Minister’s Office administers the Water Law and is responsible for the review and evaluation of EIAs related to use of Water resources.

Relevant sections of the Water Law (1996) include:
• **Article 14** divides water use into small, medium and large-scale uses.

• **Article 4** defines the rights obligations and procedures for gaining approval for use of water resources.

• **Article 18** establishes the requirements for the preparation of an EIA for any large-scale use of water.

• **Article 17** states that medium and large-scale uses of water resources are restricted to permitted reservoir developments.

Note: The Lao Water Law does **not** require the development of a Basin Management Plan for Hydroelectric projects.

### 3.1.4 Electricity Law (2008)

In December, 2008 National Assembly adopted the updated Electricity Law. This updated law provided more clear terms and definitions of the electricity services. The articles of law below are relevant in the development of Electricity projects and the maintenance and management of the environmental and social conditions where the projects are located.

**Article 5:** Government policy on the electricity

The government of Lao PDR encourages private individuals, organizations and internal and international entities to invest in the electricity development activities of the country including the generation, transmission, distribution and service of electricity resources, especially for hydropower projects which directly protect the watershed and provide electrical service to remote areas; where possible, the government will give incentives on taxes, custom fees, or the right to use natural resources (according to laws and regulations).

The GOL promotes the development of electricity services that are safe, efficient, sustainable, and that use modern methods and advanced technologies while minimizing any environmental or social impacts.

The GOL also wishes to provide electricity due to the need for national socio-economic development, contribution to national security and defense, and the improvement of the living conditions of local people.

**Article 6:** Principles of the electricity infrastructure development

Providing the service of electricity has to follow these principles:

1. Complement the socio-economic development plan.
2. Be efficient, safe and sustainable.
3. Protect the existing social, economical and environmental situation, especially forests and watershed.
**Article 29:** Concession for electricity projects consist of a pre-feasibility study, memorandum of understanding, detailed survey, project feasibility study, environmental and social impact assessment, estimation of the project cost, project development agreement and concession agreement.

**Article 30:** Feasibility Study for electricity projects which consists of:

1. Project feasibility in term economic and technical details.
2. Determination of the maximum electricity generation possible.
3. Estimation of the project cost.
4. Estimation of the project life and maintenance cost of the dam and all associated project components.
5. Estimation the price and market for the electricity.
6. Development and implementation plan including: construction, installation and time of commissioning.

**Article 31:** Environmental and social impact assessment of the project which consists of:

1. Prediction of the environmental impact using different scenarios by proposing the method, mitigation, or reduction measures to the project and any negative impacts to environment, water courses, surface and underground soil, ecology, biodiversity and fish and wildlife habitats.
2. Assessment of the losses and resettlement from the project development.
3. Details of the reduction of the water volume going downstream including the cumulative impact that may directly result in flooding during the rainy season or the diversion of water to other rivers (or other methodologies may be proposed).
4. All costs resulting from any mitigation measures relating to steps 1, 2 and 3 above (Article 31) will be included in the project investment cost.

**Article 40:** Land use of electricity projects has to be as follows:

1. Project developers have to clearly define project land area; methods of land compensation and resettlement has to be included in the project feasibility study, and environment and social impact study of the project.
2. The Energy and Mines sector will have to cooperate with the land management administration, other concerned sectors and local administration in terms of land use planning of any concession granted land.
3. Land administration will hand over land use right to Project Developers according to the Land law of Lao PDR after project approval.
**Article 41**: Contribution to a fund.

Project Developers not only pay taxes and royalty to government as per an agreement, they will also have to contribute to the fund for the protection of the environment in project concession area, surrounding area, watershed, downstream area of the project and to the infrastructure and social development of the local area of project.

### 3.1.5 Land Law (2003)

In 2003, the Land Law of Lao PDR was amended and the following articles are newly defined and the following are relevant to the environmental and social management of development projects.

**Article 3** (New): Land Ownership.

Land of the Lao PDR is under the ownership of the national community as prescribed in Article 17 of the Constitution in which the State is charged with the centralized and uniform management of land throughout the country and with the allocation of land to individuals, families and economic organizations for use.

**Article 4** (New): Promotion of Land Development.

The State promotes all economic sectors and parts of society to contribute to land development by the following:

- Laying down policies and methods.
- Education and training.
- Creation of funds for conservation and improvement of land.
- The promotion of investment in labor, equipment, capital, technology, infrastructure.
- Effective administration so that land may become of better developed and increase in value.

**Article 8** (New): Land Management Organization.

The land management organization in the Lao PDR consists of:

- National land management authority.
- Provincial, city land management authorities.
- District, municipality land management authorities.
- Village land units.

**Article 9** (New): Land Management.

The State is in charge with the management of land for the whole country in a centralized
and uniform manner in which the government assigns management responsibilities to the
national land management authority as prescribed in Article 10 of this law and coordinates
with concerned sectors and local administrations, assigns responsibility for the management
of land use to concerned sectors such as the following: Ministry of Agriculture and Forestry;
Ministry of Energy and Mines; Ministry of Public Works and Transports; Ministry of
Information and Culture; Ministry of National Defense; Ministry of Security.

Article 10 (New): Rights and Duties of Land Management Authorities.

The land management authorities have the following rights and duties:

1. To study and develop drafts of policies, laws, Presidential edicts, decrees, regulations,
   and rules and principles on land management.
2. To undertake land survey, land classification and land use planning at the local, regional
   and national levels.
3. To coordinate with concerned sectors and local administrations to plan the use of land,
   to protect and develop land; to classify land; to assess the quality of land; to define land
   areas for certain uses and to monitor such land use.
4. To allocate land use rights, to lease or grant concessions, and to withdraw the right to
   use land.
5. To develop land registers, make land evaluations, conduct land registration, issue land
   titles, and collect land statistics.
6. To collect land tax.
7. To settle land disputes.
8. To manage State land and protect the environment.
9. To define policies on the management of its organization and transactions for the sale
    and purchase of rights to use land.
10. To develop a data and information system on land.
11. To define policies and regulations to protect people who perform their professions on
    land such as: land surveyors; land values assessor; brokers or representatives of land
    sellers or buyers.
12. To exercise such other rights and performs such other duties as assigned by the
government.


Land in the whole country is divided into the following zones, regions and categories:
1. Classification of zone:

Plain zone, plateau zone and mountainous zone consisting of:

- Municipal zone
- Rural zone
- Specific economic zone
- Special economic development zone

2. Classification of land categories:

- Agriculture
- Forestry
- Wetland
- Industrial land
- Communication land
- Cultural land
- Land for national defense and security
- Construction land

**Article 12** (New):

The government is charged with the zoning and demarcation of boundaries for each land category throughout the country and, thereafter, with their submission to the National Assembly for approval.

Local administrations are charged with the determination of land categories which are under their jurisdiction in accordance with the determination of boundaries for land categories made by the State and, thereafter, with their submission to the higher administrative authorities for consideration and approval.

**Article 27** (New):

Industrial Land: Industrial land is the land area or region which is determined by the State to be the location of workshops and factories, including the housing for workers. Also including the following: industrial centres; industrial zones; industrial estates; places for industrial, technical and scientific research; waste-water treatment stations; industrial waste disposal sites; energy sources; electricity transmission lines; energy and gas pipe-lines; pipe-lines for water supply; mining areas, and other land used for industrial purposes.

**Article 28**:

Management of Industrial Land: The Ministry of Industry and Handicrafts (now Ministry of...
Energy and Mines) is charged with the managing of industrial land, and with studying and developing the regulations on the management, protection, development, and use of this category of land, including environmental protection, and, thereafter, submitting to the government for consideration and approval.

In the case of the management of land used for electricity transmission lines, energy and gas pipelines, and pipe-lines for water supply, it is required to coordinate with the transport, post and construction sector and other concerned sectors.

**Article 29**: Regulations on the Use of Industrial Land: Individuals and organizations using industrial land shall comply with the following conditions:

1. Have been authorized by the industry and handicrafts sector.
2. Have been authorized by the town planning organizations.
3. Cause no harm to any other person, to the public or to the environment.
4. Repair and restore the land to its previous condition after using the land for mining.

### 3.1.6 Archaeology Law

Under Lao law all potential archaeological sites are Protected Areas until approval for development of such sites is given by the Ministry of Education and Culture. It is necessary to obtain approval for development of the reservoir area from the Ministry of Education and Culture.

### 3.1.7 Legal Status of Ethnic Groups in Lao PDR

The Lao PDR Constitution (1991) and other legislation recognize the unity and equality of ethnic groups in the political process and protect their rights to preserve and improve their unique traditions and culture (Articles 1, 2, 3, 8 and 22). All ethnic groups are Lao citizens, possess family books and identity cards, have the right to use native languages and to practice traditional customs and religion (Const., Articles 8 and 9). The Constitution prohibits any act that discriminates against or divides ethnic groups (Article 8). Ethnic groups maintain land tenure user rights equal to all Lao citizens with certain specifications (see Section 3.1.5.1) and even preferential access and customary user rights to certain forest products (Forestry Law, Article 30; MAF Regulation 535; MAF Orders 54 and 377).

As the primary legal document in Lao PDR, the Constitution provides a framework and minimum rights to be implemented in legislation. However, since the court system remains underutilized, it is difficult to enforce such rights or resolve conflicts between ethnic groups and the government or other stakeholders. Legislation in Lao PDR recognizes primary land tenure and resource user rights for ethnic groups, but most of them remain unaware of these rights under national legislation due to the inability of the government to provide extension to remote ethnic villages. Thus any project within the Watershed Management Area should focus on providing extension of legislation and rights to the ethnic groups and assist in
establishing village based rules, zoning and management.

The National Assembly has a special Committee on Ethnic Affairs to draft and evaluate proposed legislation to ensure that the concerns of ethnic groups are incorporated and not infringed upon. The lead institution for ethnic affairs in Lao PDR is the Lao National Front for Construction (LNFC), which has an Ethnic Affairs Department. Research on ethnic groups is the responsibility of the Institute for Cultural Research under the Ministry of Information and Culture.

The country's new constitution, enacted in August 1991, ensures equal rights for both sexes in the political, economic, cultural, social fields, and family affairs. The role of the Lao Women's Union (LWU) is also recognized in the constitution with an information gathering and service delivery role. Among the 21 other laws which have been enacted since January 1992, some are related to gender issues. Among these are Property Law, Inheritance Law, Insurance Law, Labour Law, Family Law and Election Law.

### 3.2 DECrees

The key issues of Decree on Compensation & Resettlement of the Development Project, No. 192/PM, dated 07/07/2005 include:

- Project owners shall compensate project affected people (AP) for their lost rights to use land and for their lost assets (structures, crops, trees, and other fixed assets), affected in full or part, at replacement cost.

- When possible land held by APs that is to be used for a project such as agricultural, residential or commercial land, shall be compensated through provision of “land for land” arrangements of equivalent size and productivity and be acceptable to APs and project owners.

- If the house or structure is unviable for continued use or the remaining area is less than the minimum house size, the AP shall be entitled to be compensated for the entire structure at replacement cost without depreciation or deduction for salvage materials. In case the remaining structure is viable for continue use, project owners shall provide compensation for the lost portion and assistance in cash or material for restoration of the remaining structure.

- APs whose land or assets are temporary taken by the implementation of the project shall be fully compensated for their net loss of income, damaged assets, crops, trees, etc. Also, the project owners shall ensure that the land or assets are returned to their pre-project state.

- Tenants, who have leased a house or structure for any purpose and are affected by the project, shall be compensated for their lost assets in the amount equivalent to three months rental allowance, and shall be assisted in finding alternative rental accommodation.
- APs who are living in rural or remote areas, who do not have any legal Land Use Certificate or any other acceptable proof indicating land use right to the affected land and assets they occupy shall be compensated for their lost assets at replacement cost and provided additional assistance to ensure they are not worse off due to the project.

- All AP, regardless of land use right, will be entitled to compensation for lost assets (structures, crops, trees) at replacement cost, and provided with other assistance during the transition period, as well as economic rehabilitation assistance to ensure that they are not worse off due to the project.

- All previous claims and unresolved issues related to tenure status and ownership of land and other assets affected by the sub-project or components shall be resolved prior to initiating any new land acquisition measures on the representatives from all stakeholders in order to assess the loss to the APs.

- Prior to the commencement of project construction, APs shall be fully compensated and resettled, and rehabilitation measures shall be in place, although not necessarily completed yet.

APs displaced and/or affected due to the loss of income and livelihood shall be provided with the following assistance until their income levels and living conditions can be stabilized:

(a) Transport allowance or assistance in kind to transfer to the resettlement site or their choice of relocation.

(b) Food allowance, in cash or in kind to compensate for income lost, during the transition period.

(c) Suitable development assistance after displacement during the transition period until they are able to restore their income or improve their living standards.

(d) All APs severely affected by the project due to loss of 20% or more of productive income generating assets (loss of agricultural, industrial or commercial resources shall be entitled to sustainable income restoration measures in addition to their entitlement for compensation and other allowances enabling them to attain pre-project livelihood levels.

(e) For displaced persons whose land based livelihood are affected due to the project, preference shall be given to land-based resettlement strategies, or where land is not available, options built around opportunities for employment or self-employment.

(f) For displaced persons whose businesses are affected due to the project, in addition to compensation for lost land, structures, and income, assistance shall be given to finding replacement sites for business as appropriate.
(g) These rehabilitation measures shall specifically focus on vulnerable groups. Adequate assistance, in addition to compensation for affected assets and other allowances, shall be provided to enable such APs to achieve household income targets set above the national poverty line.

(h) Project owner shall restore or repair community facilities and infrastructure that are damaged due to the project, at no cost to the community.

(i) Any impact or restriction on access to resources managed by affected community as a common property shall be mitigated by arrangements ensuring access to improved or at least equivalent resources on a continuing basis. Attention shall also be paid to directly affected APs if their benefits are affected due to the loss of access to common property resources.

3.3 OTHER LEGISLATION RELEVANT AND INTERNATIONAL REQUIREMENTS

Pak Beng Hydropower Project is applying World Bank (WB) Safeguard Policies into its implementation of the Environment and Social Management and Monitoring. Below are some key WB policies:

Two policies cover social safeguards including involuntary resettlement and indigenous people.

a) Involuntary Resettlement

The WB’s safeguard policy on Involuntary Resettlement – OP 4.12 (December 2001) – seeks to ensure that impoverishment risks due to involuntary resettlement are addressed and minimized.

The policy has the objectives to:

1) Avoid resettlement where possible, and otherwise minimize through alternative project designs.

2) Resettlement should be conceived and executed as a sustainable development program.

3) Affected people should be meaningfully consulted, and be facilitated to participate in planning and implementing resettlement plans.

4) Displaced people should be assisted to improve, or at least restore their livelihoods and standards of living.

The policy covers direct economic and social impacts that result from the following:
The involuntary taking of land resulting in the following:
  o relocation or loss of shelter.
  o loss of assets or access to assets.
  o loss of income sources or means of livelihood, whether or not the affected persons must move to another location.

The involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of APs.

Where impacts on the affected population are minor, an abbreviated resettlement plan may be prepared. For projects causing significant resettlement (more than 200 people are displaced or will lose 10% of productive/income generating assets), a full resettlement plan is required. The resettlement plan will include measures to ensure that people are informed about their options and rights pertaining to resettlement; consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.

The policy requires that in the resettlement planning process:

1) Affected people and their communities, as well as host communities, are provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in resettlement planning, implementing, and monitoring;

2) At new resettlement sites, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service. Alternative or similar resources are provided to compensate for the loss of access to community resources (such as fishing areas, grazing areas, fuel, or fodder); and

3) Patterns of community organization appropriate to the new circumstances are based on choices made by the affected people, and existing social and cultural institutions of those people are preserved.

To achieve the objectives of the policy, WB requires that particular attention be paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, ethnic groups, or other displaced persons who may not be protected through national land compensation legislation.

b) Indigenous People

The WB’s safeguard policy on Indigenous People – OP 4.10 (January 2005) – recognizes that there is no universally accepted definition of indigenous peoples, and does not try to
define the term. Indigenous Peoples may be referred to in different countries by such terms as “indigenous ethnic groups,” “aboriginals,” “hill tribes,” “group nationalities,” “scheduled tribes,” or “tribal groups.”

For purposes of the safeguard policy, the term “indigenous peoples” is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and, (d) an indigenous language, often different from the official language of the country or region.

Experience of the WB has shown that resettlement of ethnic group people with traditional land-based modes of production is particularly complex and may have significant adverse impacts on their identity and cultural survival. For this reason, the WB requires that the borrower/project developer has explored all viable alternative project designs to avoid physical displacement of these groups.

When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies that are compatible with the cultural preferences of the groups, and such plans or strategies are prepared in consultation with them.

c) Comparison of National Law and World Bank Policy

The recent changes in legislation related to compensation and resettlement in development represents a significant improvement in the rights of citizens when their livelihoods, possessions and society are affected by development projects.

The Decree, similar to WB’s OP 4.12, requires that APs are compensated and assisted to improve or maintain their pre-project incomes and living standards, and are not worse off than they would have been without the project.

1) Both Lao Law and WB policies entitle APs to compensation for affected land and non-land assets at replacement cost. However, definition of severely affected APs varies between WB’s OP 4.12 at 10% and the Government’s Decree 192/PM (Article 8) at 20% of productive and/or income generating assets affected. However, in accordance with Decree 192/PM (Article 6) which entitles all APs to economic rehabilitation assistance to ensure they are not worse off due to the Project, and the provisions of resettlement policies for other hydropower projects that have been agreed between Government and international donors (ADB and World Bank), the definition of severely affected - as people losing 10% or more of their productive or income generating assets - will be adopted as part of the Project’s resettlement policy.
2) Also, both Lao Law and WB policies entitle non-titled APs to compensation for affected assets at replacement cost and other assistance so that they are not made worse off due to the Project. Decree 192/PM goes beyond WB’s policy and provides APs living in rural or remote areas, or APs in urban areas who do not have proof of land-use rights and who have no other land in other places, compensation for loss of land-use rights at replacement cost, in addition to compensation for their other assets and other assistance.

- Both the law (Decree 192) and OP 4.12 require that if non-titled APs are required to relocate, the project will ensure they are provided replacement land at no cost to the APs, or cash sufficient to purchase replacement land.

As GOL has ratified the international agreement and commitment to promote sustainable development, existing policies/plans have taken into account the bilateral and multilateral cooperation to manage the share water resources and sustainable utilization of natural resources.

(1) Mekong River Commission: Mekong River Commission (MRC) succeeded the Mekong Committee, which, among other things, had been instrumental in the planning of Nam Ngum, the first larger hydropower project in Lao PDR. In 1995 the four riparian countries in the lower Mekong basin Cambodia, Laos, Thailand and Vietnam signed agreement on cooperation for sustainable development in the Mekong River Basin. The primary purpose of the Agreement is to promote economic and social well-being of the people in all the riparian countries through the protection of the environment, improvement of navigation and the cooperation in the maintenance of flows and intra-and inter-basins diversions.

(2) ASEAN membership: Lao PDR became a member of the Association of Southeast Asian Nations (ASEAN) in 1997. The principal legal instrument of ASEAN that has potential nature conservation obligations is the agreement on the Conservation of Nature and Natural Resources. However, it has been ratified by only three countries since it was adopted in 1985, and is therefore not in force. ASEAN also has provisions to assist member countries to establish trans-boundary nature reserves.

- International Conventions and treaties: The following conventions also relevant to development projects in Lao PDR:

- Convention on Biological Diversity (CDB) - Lao PDR became a signatory to the CDB in 1992. The obligations of CDB have been fulfilled in terms of new
policy and legislation and by establishing National Biodiversity Conservation Areas (NBCAs).

- Convention on International Trade in Endangered Species (CITES) - The Lao PDR ratified Convention on the protection of World Cultural and Natural Heritage - This convention was ratified by GOL in 1987. The convention addresses the protection of both cultural and natural objects and sites of high national and international value.

- This convention was signed in early 2004. Prior to the ratification, the Ministry of Agriculture and Forestry (MAF) issued a regulation that banned all hunting for trade. Hunting for consumption was still allowed. This implies that GOL is now committed to increasing efforts to halt the extensive trade in wildlife from Lao PDR to its neighboring countries.
4 IDENTIFICATION OF SOCIAL IMPACTS

4.1 PROJECT IMPACTS

The SIA identifies and evaluates the potential impacts that a proposed project may have on the social and human health environment and develops mitigation measures that will be incorporated in order to eliminate, minimize or reduce these impacts. It seems reasonable to identify what groups of people will be affected from the development of the Pak Beng HPP and how these impacts differ between these groups. For example, the most severe impacts are due to inundation and land while marginal impacts may be due to disturbance from construction activities including those living in downstream areas that may also be affected from water level fluctuations, etc.

Table 4.1-1: Summary of the Potential Project Impacted Villages
4.2 ANALYSIS OF THE SOCIAL IMPACTS

Below is a detailed analysis of social impacts (Table 4.2-1):

Table 4.2-1: Summary of Project Potential Impacts and Mitigation Measures and Responsibilities

<table>
<thead>
<tr>
<th>Duration (Phases)</th>
<th>Component Concerned</th>
<th>Potential Impacts</th>
<th>Significance</th>
<th>Mitigating Measures</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Construction phases</td>
<td>Resettlement and Relocation of 7 villages; 203 households;</td>
<td>Loss of land and altered livelihoods</td>
<td>Major negative</td>
<td>- Full compensation for lands, resources and livelihood lost or changed with the aim that they should be better off than before the project.</td>
<td>RCS/EMO/SMO and EMC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource access restriction and altered livelihood and social stress caused by resettlement</td>
<td>Major negative</td>
<td>- Livelihood packages, livestock, fisheries and forestry development.</td>
<td>RCS/EMO/SMO and EMC</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>- Improved land tenure.</td>
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<td></td>
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<td></td>
<td></td>
<td>- Exclusive rights for resettle people in relation to natural resource management.</td>
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</tr>
<tr>
<td>Duration (Phases)</td>
<td>Component Concerned</td>
<td>Potential Impacts</td>
<td>Significance</td>
<td>Mitigating Measures</td>
<td>Responsibilities</td>
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</tbody>
</table>
|                  |                     | Competition for resources (infrastructure and natural resources, reduced capacity of local authorities and marginalization of ethnic groups) | Moderate negative | - Improved institutional capacity for local people, regional and national institutions for implementing resettlement and livelihood development plans.  
- Community or livelihoods development initiatives for resettlement. | RCS/EMO/SMO and EMC |
<p>| Population migration | Influx of people (during the construction and operation) could create inflation, price increases and shortage of goods and services due to increased demand | Minor negative | - Proactive approach and preparation of an influx management plan in association with Social Management and Monitoring Plan (SMMP) initiatives as part of the overall project impact assessment. | EMO/SMO and EMC |</p>
<table>
<thead>
<tr>
<th>Duration (Phases)</th>
<th>Component Concerned</th>
<th>Potential Impacts</th>
<th>Significance</th>
<th>Mitigating Measures</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Water quality, noise, vibration, dust and social interruption.</td>
<td>Moderate negative</td>
<td>- Monitoring and mitigation by contractors as they will need to prepare contractor’s environmental management plan.</td>
<td>SDS (Health team) and ES/EMO/SMO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Road accident</td>
<td>Moderate negative</td>
<td>- Village warning for rock explosion, replacement of water supply, appropriate safety measures.</td>
<td>SDS (Consultation Team)/EMO/SMO.</td>
</tr>
<tr>
<td>Duration (Phases)</td>
<td>Component Concerned</td>
<td>Potential Impacts</td>
<td>Significance</td>
<td>Mitigating Measures</td>
<td>Responsibilities</td>
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<tr>
<td></td>
<td><strong>Education</strong></td>
<td>Increase in students drop out rates during construction period</td>
<td>Moderate negative</td>
<td>- Education and community development initiatives for resettlers.</td>
<td>SDS (Education Team)/EMO/SMO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Assist in improving existing facilities to required standard and capacity to accommodate student population from workers families.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>- Construction of new secondary and primary schools.</td>
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<tr>
<td></td>
<td><strong>Economic opportunity</strong></td>
<td>Increased employment opportunity</td>
<td>Moderate beneficial</td>
<td>- Contract specification, priority is given to local laborers and technicians.</td>
<td>SDS (Community Development Team)/EMO/SMO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commercial opportunity</td>
<td></td>
<td>- Training for local people.</td>
<td></td>
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<tr>
<td>Duration (Phases)</td>
<td>Component Concerned</td>
<td>Potential Impacts</td>
<td>Significance</td>
<td>Mitigating Measures</td>
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</table>
| Operation phases | Socio/Livelihood    | Changes in ecology and accessibility to rivers for people dependent on aquatic resources for nutrition | Major negative    | - Monitoring of erosion along the river at downstream and provision of compensation as needed.  
- Fishery monitoring and compensation as needed, alternative protein replacement programme.                                                                 | SDS (Community Development Team)/EMO/SMO.                                      |
|                  |                     | Loss of NTFPs and natural resource use                                           | Major negative    | - Develop compensation and livelihood development program.                                                                                                                                                    | SDS (Community Development Team)/EMO/SMO.                                      |
|                  | Public health       | Increase of dusts from transportation of the materials in-out of the project     | Moderate negative | - Watering roads in the area that are close to the community.  
- Set up warning signs and speed limit.  
- Provide adequate year round road water supply to directly and indirectly impacted villages that are close to transport areas or access roads. | SDS (Health team)/EMO/SMO and Project Safety Officer.                        |
<table>
<thead>
<tr>
<th>Duration (Phases)</th>
<th>Component Concerned</th>
<th>Potential Impacts</th>
<th>Significance</th>
<th>Mitigating Measures</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Drinking water quality</td>
<td>Major beneficial</td>
<td>- Construction of village drinking water supply.</td>
<td>SDS (Community Development Team)/EMO/SMO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Road accident</td>
<td>Minor negative</td>
<td>- Proper road system design including traffic signs.</td>
<td>SDS (Health team) /EMO/SMO and Project Safety Officer.</td>
</tr>
<tr>
<td>Duration (Phases)</td>
<td>Component Concerned</td>
<td>Potential Impacts</td>
<td>Significance</td>
<td>Mitigating Measures</td>
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<td>-------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>Education</td>
<td>Good access to educational facilities</td>
<td>Major beneficial</td>
<td>- Construction of primary and secondary schools</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Occupational training centre to be provided to local people to prepare for project employment.</td>
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<td></td>
<td></td>
<td></td>
<td>SDS (Education Team)/EMO/SMO.</td>
<td></td>
</tr>
<tr>
<td>Rural electrification</td>
<td>Rural electrification</td>
<td>Good electricity facility</td>
<td>Major beneficial</td>
<td>- Provide free electrical connection to the new resettlement villages as part of the compensation package.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SDS (Community Development Team)/EMO/SMO.</td>
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</tr>
</tbody>
</table>
5 PAK BENG HPP COMPENSATION PRINCIPLES

The Project compensation eligibility policies and compensation principles are generally set out in the SIA report. However, the following matrix of the proposed entitlements for compensation and assistance are provided below (Table 4):

Table 5-1: Project compensation

<table>
<thead>
<tr>
<th>Impacts / Issues</th>
<th>Entitlements for Compensation and Assistance</th>
</tr>
</thead>
</table>
| Permanent loss of agricultural land | • Replacement land of at least the same size and equal productive value at a location acceptable to the AP.  
• Replacement land will be cleared, fenced and prepared by the resettlers (food for work program) or mechanically cleared if the AP cannot provide sufficient labour.  
• In cases where replacement land is not available in sufficient area, the AP may accept cash payment for difference between land registered and land provided in the resettlement site. |
| Permanent loss of irrigated land  | • Replacement irrigation system in resettlement site or compensation by cash to the labour fee of current irrigation system development.                                              |
| Permanent loss of residential land | • Replacement land for housing and front yard and for backyard cropping per family.                                                                                              |
| Permanent loss of commercial land | • Replacement land of at least equal value; location will be suitable to the AP in order to continue viable commercial activities.  
• Cash payment for the value of land if commercial activities cannot be continued or AP does not wish to do so. |
| Loss of houses                    | • Provision for new material and construction of new house with better standard.  
• Basic housing area of 10 m² per person.  
• Basic housing area of 60 m² for 5 members or less.  
• Barn, livestock pens and other buildings will be replaced.  
• Private fences will be replaced by shared fences.  
• Flushing latrines will be installed on new house plots.  
• Household electrical wiring and basic fixtures for three lamps and one plug will be provided. |
| Loss of commercial structures     | • Replacement structure in a location acceptable to the AP.  
• Cash option if commercial activities cannot be continued or AP does not want to continue.                                                                                 |
<p>| Loss of physical cultural resources | • Provision for rituals and acceptable arrangements for transporting moveable items re-establishment at new site.                                                             |</p>
<table>
<thead>
<tr>
<th>Impacts / Issues</th>
<th>Entitlements for Compensation and Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Loss of agricultural production system</strong></td>
<td>• Replacement of holy house and other belief structures of at least the same value and be acceptable to the community.</td>
</tr>
<tr>
<td></td>
<td>• Provision for appropriate rituals and for cemeteries, holy sites and other immovable cultural landmarks prior to moving.</td>
</tr>
<tr>
<td></td>
<td>• 02 ha of land in an off-village location, allocated and developed on a community basis (with host village if any).</td>
</tr>
<tr>
<td></td>
<td>• Irrigation system for 01 ha of agriculture land.</td>
</tr>
<tr>
<td></td>
<td>• A range of feasible production and income generating options in order to meet household income targets.</td>
</tr>
<tr>
<td></td>
<td>• Supply of basic tools and equipment for agriculture work.</td>
</tr>
<tr>
<td></td>
<td>• Planting materials for three years, including saplings.</td>
</tr>
<tr>
<td></td>
<td>• Fertiliser and agro-chemicals, as required.</td>
</tr>
<tr>
<td><strong>Loss of fruit trees and timber / industrial trees</strong></td>
<td>• Cash compensation based on 5 years of production or estimated return on investment (based on studies and agreed by DWG, SRMU and Project Developer).</td>
</tr>
<tr>
<td></td>
<td>• Replacement seedling at new village location as part of the livelihood restoration package.</td>
</tr>
<tr>
<td><strong>Loss of common property resources</strong></td>
<td>• Access to forests, grazing land and fisheries in the new area</td>
</tr>
<tr>
<td></td>
<td>• Livelihood restoration packages</td>
</tr>
<tr>
<td></td>
<td>• Enhancement and development of common property resources of new villages.</td>
</tr>
<tr>
<td><strong>Loss community infrastructure</strong></td>
<td>• All-weather road to each resettlement site.</td>
</tr>
<tr>
<td></td>
<td>• Replacement of all community infrastructure of at least the same value and function or improvement of host village situation.</td>
</tr>
<tr>
<td></td>
<td>• New market place and meeting/community hall in each resettlement village location or improvement of host year-round village water supply.</td>
</tr>
<tr>
<td></td>
<td>• Electricity connections to houses.</td>
</tr>
<tr>
<td><strong>Loss of educational facilities</strong></td>
<td>• Replacement school or upgrading of existing host village facilities, including library.</td>
</tr>
<tr>
<td></td>
<td>• Provision for equipment, materials and furniture as required.</td>
</tr>
<tr>
<td></td>
<td>• Training of existing and new teaching staff.</td>
</tr>
<tr>
<td><strong>Loss of health facilities</strong></td>
<td>• Replacement health centre or upgrading of existing host village health facilities.</td>
</tr>
<tr>
<td></td>
<td>• Provision for equipment, medical supplies, and water and sanitation arrangements.</td>
</tr>
<tr>
<td></td>
<td>• Support for district and provincial health facilities to be of good standard and have trained staff.</td>
</tr>
<tr>
<td></td>
<td>• Improvement of health prevention, diagnosis and treatment of common diseases.</td>
</tr>
<tr>
<td>Impacts / Issues</td>
<td>Entitlements for Compensation and Assistance</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• Training of existing and new village health volunteers.</td>
</tr>
<tr>
<td></td>
<td>• Health checks for all resettlers during resettlement transition period and annually until income targets are reached.</td>
</tr>
<tr>
<td></td>
<td>• Free referral and ambulance services for three years after moving.</td>
</tr>
<tr>
<td>Loss of cemetery</td>
<td>• New cemetery at the resettlement site as requested.</td>
</tr>
<tr>
<td></td>
<td>• Assistance for performing required ceremony in an amount of 600 USD per cemetery.</td>
</tr>
<tr>
<td>Moving Assistance</td>
<td>• One time disturbance allowance for moving 250 USD per household (This covers the cost of labour for dismantle and transportation of moveable assets to new site and assistance in performing spirit ceremonies in departing villages).</td>
</tr>
<tr>
<td>Training and Support</td>
<td>• Training and support for livelihood restoration for five years after moving and establishment of household plots or until income targets are reached in a sustainable manner.</td>
</tr>
<tr>
<td></td>
<td>• Skills training for all households bases on consultations and agreed to by the community and individual households.</td>
</tr>
<tr>
<td></td>
<td>• Social development training for all households, e.g. household budget training, saving and credit groups etc.</td>
</tr>
<tr>
<td></td>
<td>• Support and advice from project Resettlement Unit, RMU and District line agencies.</td>
</tr>
<tr>
<td></td>
<td>• Priority for labour opportunities on project sites.</td>
</tr>
<tr>
<td>Food support</td>
<td>• Assistance for 20 kg of milled rice per person per month in the period of 3 years of resettlement or until the new resettled families can afford to get rice sufficiency.</td>
</tr>
<tr>
<td></td>
<td>• Additional support of supplementary protein to meet basic nutritional shortfalls during first year of resettlement.</td>
</tr>
<tr>
<td>Vulnerable Households</td>
<td>• A Numbers of Households with insufficient labour force will receive special assistance for their individual needs during moving.</td>
</tr>
<tr>
<td></td>
<td>• Vulnerable households will receive assistance in an amount of 100 USD for the establishment of suitable production systems in relation to their needs and capacity.</td>
</tr>
<tr>
<td>Self-relocation</td>
<td>• Those who do not wish to partake in the resettlement program will receive a one-time payment for the loss of structures, land, trees and produce.</td>
</tr>
<tr>
<td>Grievance</td>
<td>• All household to have access to Grievance Committee for complaints.</td>
</tr>
</tbody>
</table>
6 INSTITUTIONAL ARRANGEMENT FOR SMMP

6.1 NATIONAL ENVIRONMENTAL AND SOCIAL COMMITTEE

It is not always possible for the developer to recognize indirect social and environmental impacts arising from the projects implementation and its social-environmental mitigation plan. Accordingly, community consultation and consultations with government agencies constitute an important component of the plan. The planning of this project will be undertaken in consultation and with the advice of the district, provincial, national governments. It is proposed to establish of the National Environment and Social Management Committee (NESMC).

The major scope of work of the NESMC is to provide guidance and to direct implementation of the Social Development Plan and the Resettlement Action Plan.

The operational costs of the Pak Beng HPP NESMC will be supported by the project proponent. To avoid conflicts of interest, no member of the NEMSC will be contracted to implement any part of the Environmental Management and Monitoring Plan, Resettlement Action Plan or Watershed Management Plan (or any others).

The National Environmental and Social Management Committee may consist of the following at the ministerial level:

- Minister/Vice to Prime minister’s office/President or Vice President of MONRE.
- Minister/Vice of Energy and Mines.
- Agriculture and Forestry Permanent Secretary Office.
- And any other relevant Ministerial personnel.

NESMC may conduct a meeting every 3 months to evaluate the overall progress of the project, and if required may organize a special meeting at any time to solve any issues or emergencies that require a quick decision.

6.2 PROVINCIAL ENVIRONMENTAL AND SOCIAL COMMITTEE

Following precedents set by earlier projects the developer proposes that a Provincial Environment and Social Management Committee (PESMC) will be set up composed of officials from relevant Departments and Sectors of each provincial government chaired possibly by either the Provincial Governor or Vice governor. Representatives from the District government may include:

- Provincial Governor
- Provincial Cabinet Officer
- District Governor
- Environmental Manager
- Provincial Energy and Mines Officer
• Provincial Forestry Officer
• Provincial Land Officer
• Lao Woman’s Union representative
• And other concerned authorities

The Pak Beng HPP, PESMC will meet regularly, perhaps once a month. The committee will have its inaugural meeting at least 1 month before the start of the Project and will operate for the construction stage and a few years after to monitor post impoundment impacts and take action as necessary.

6.3 PROJECT ENVIRONMENTAL AND SOCIAL UNIT

MONRE will establish an Environmental Management Unit (EMU) in accordance with the Environmental Protection Law with the authority to closely monitor the Company’s and Project’s compliance with environmental measures, standards, and permits. One of the EMU’s major tasks will be to act as secretary to the NESMC with the major task of preparing all relevant Pak Beng HPP implementation policies and directions for approval by the NESMC. The EMU has the full right to inspect all the implementation of the EMMP, SMMP and RAP of the Project.

During preparation of the Concession Agreement (CA) of the project, many obligations of the GOL and the Pak Beng HPP including the environment and social management conditions are to be discussed. The EMU will be set up to see that Pak Beng HPP has fulfilled those requirements and obligations during the implementation phase of the project. The complete EMU operational budget will be fully supported by project proponent.

The EMU may be headed by Director/Vice Director General of the ESIA Department, and they will regularly report to MONRE and NESMC as a representative of the GOL on environment and social management issues during the development of Pak Beng HPP.

The EMU will have the following responsibilities:

1) Assisting MONRE with reviewing and approving subject to conditions.
2) Coordinating with Government Authorities in relation to the implementation of the Environmental Objectives of the GOL and the Company.
3) Monitoring and inspecting the implementation and compliance of the Environmental Obligations of both the GOL and the Company.
4) Conducting field monitoring and inspections of the Company’s compliance with its environmental obligations.
5) Advising MONRE and the Government Authorities on the adequacy of proposed environmental mitigation measures and recommending amendments following findings from project monitoring.
6) Setting up a process to record all monitoring data compliance, management decisions and corrective actions taken.

7) Setting up the Environmental Management Information System.

8) Liaising with external organizations in relation to environmental issues relating to the Project, which include the following:
   - Coordinating the resolution of issues which arise among the various Government Authorities and the company relating to the environmental measures.
   - Developing and updating work schedules for the monitoring and inspections of the EMU.
   - Managing its financial and manpower resources.
   - Procuring technical assistance or other services or goods.
   - Advising the GOL through MONRE using periodic reporting on the performance of the Environmental Measures, including the performance of the financial aspects of the Environmental Measures.
   - Coordinating any necessary interfaces between the Company or the EMO with any of the government authorities with respect to environmental issues.
   - Working with the Independent monitoring agencies in order to periodically assess the performance of Environmental Measures.
   - Following the provision of any required input from the EMO, responding to any public comments, complaints and inquiries in relation to the environmental measures.
   - Assisting MONRE with giving instructions to the company regarding compliance with its environmental obligations.
   - Assisting MONRE with issuing non-compliance notifications to the company and sanctioning the company in cases of non-compliance.

Since the GOL monitoring task is considered very important, the MONRE will establish an Environmental/Social Monitoring and Inspection Unit (ESMI) within its organization. The ESMI shall be under the direction of MONRE to monitor and inspect the compliance with the environmental and social measures of the GOL and the company. The ESMI’s responsibilities in terms of monitoring and inspection of environmental and social measures shall be addressed in the CA. The ESMI will have the following responsibilities:

1) Assisting GOL with reviewing the EMMP and any revisions or detailed plans thereof.

2) Conducting monitoring and field inspections of the social measures of the Company and the GOL with respect to compliance with the environmental and social obligations of the Company and the GOL.

3) Assisting GOL with the following:
   - Issuing instructions to the company regarding compliance with its social obligations including the law of the Lao PDR.
• Issuing non-compliance notifications/enforcement notices to the company.
• Solving problems for the Company in cases of non-compliance.

4) Advising relevant government authorities on the adequacy of proposed social measures and recommending amendments following findings from project monitoring.

5) Periodic reporting on the performance of the environmental and social measures, including the performance of the financial aspects of the environmental and social measures.

6) Developing and updating work schedules for the monitoring and inspections of the ESMI.

7) Managing its financial and manpower resources.

8) Procuring technical assistance or other services or goods including the following:
   • Assist GOL with reviewing all documents related to the social measures.
   • Monitoring and auditing funds for social obligations that are earmarked by the company for GOL activities.
   • Report to GOL about monitoring findings.

6.4 PROJECT ENVIRONMENTAL MANAGEMENT OFFICE AND SOCIAL MANAGEMENT OFFICE

The Project Developer will set up an organizational structure for the project in order to take care of all social and environment matters of the project.

6.4.1 Social Management Office

The Developer will establish an Environment Management and Monitoring Office (EMO) and a Social Management and Monitoring Office (SMO) which will be responsible for the overall planning including the implementation of environmental and social management, resettlement for the project and coordination with local authorities and affected households. While implementation of the project will be managed by Project Proponent, the EMO/SMO (Fig. 6.4-1) will be established to manage the RAP using consultant inputs as required, and they will monitor and report to the developer on the effectiveness of implementation of the RAP. Also, they will coordinate activities during and after construction aimed at improving the environmental performance of the project during its operating phase.

At least one official will be assigned for the EMO/SMO that will be responsible for the coordination with the construction and operation managers of the environmental and social aspects. The EMO/SMO will implement the resettlement under the supervision of the Provincial Environment and Social Management Committee and contract a company, NGO or government to monitor the resettlement and the extent to which it is conducted according to the Resettlement Policy Frameworks, the RAP and government policy and regulations. The EMO/SMO will prepare all documentation and reports concerning the environmental and social aspects of the project including resettlement progress reports to be submitted to DOE and MONRE during the project implementation period.
The EMO/SMO is will act as the first point of contact for the EMU and indirectly for the Project National Environment and Social Management Committee (NESMC). It will receive all complaints and grievances arise in the course of the implementation of the RAP resolve them as far as it can with the offended parties. If unsatisfactorily resolved an appeal by the offended party could then lodge an appeal to the PESMC through the EMO/SMO.

**Environmental Manager:** The developer will appoint an Environmental Manager (EM) to head the EMO/SMO on a full time basis. The EM will report directly to the project proponent Project Manager. His/her role will be to ensure that the mitigation and monitoring measures are implemented and that the standards in the schedules of the RAP and those that are also applicable to the operation of the project are applied. Breaches of the standards detected during compliance monitoring and mitigation measures undertaken to resolve the problem and the success or otherwise of these measures will be reported to the project manager.

The EM will act on behalf of the project proponent in dealing with Government Agencies or other parties concerned. He/she will represent project proponent in the Provincial Environment and Social Management Committee (PESMC) and will be responsible for maintaining good relations and communication with the local communities. His other activities will include but not necessarily be limited to:

- Coordination, supervision, monitoring and reporting on activities undertaken in the RAP
- Liaising between the Project Manager with the Consultants, the Government Agencies, and the contractors and concerned or contracted NGOs.
- Supervising and monitoring of field activities of sub-contractors in relation to implementing the RAP.
- Supervising specific routine technical tasks of the EMO/SMO such as water quality monitoring
- Reporting to the project Manager.

To implement these task, the EM will be assisted by full time assistants as required and part time international/or national consultants. This technical assistance will include the services of an environmental planner mainly during early implementation of the RAP, and by other specialists as required by the EM.

The Environment and Social Management and Monitoring Unit is composed of the Resettlement Section (RS), a Social Development Section (SDS) an Environment Section (ES) and a Project Monitoring group made of members who are retained within each of
these three groups for monitoring each group but share facilities and the EMO/SMO database.

Fig. 6.4-1: Components of the EMO/SMO

a. Resettlement Section

The Resettlement section (Fig. 6.4-2) will be responsible for all infrastructure and livelihood planning as well as implementation and monitoring of the relocation process for households in the new resettlement area. It will carry primary responsibility for livelihood restoration and improvement for the new and adjacent villages. In addition, it will be responsible for compensation and relocation issues related to Project Construction Lands.

The Unit will be headed by a Manager with proven resettlement implementation experience, who will report directly to the EMO/SMO Manager, and work closely with the Liaison Officer and GOL support staff (see below).

The tasks of the three teams in the Resettlement Section will be as follows:

+ **Infrastructure Team**

  - Ensure access to new sites/adjacent villages through the construction of new bridges and roads, or the rehabilitation or upgrading of existing transportation facilities.

  - Ensure that effective water supply is provided to all new sites/adjacent villages, through the installation of wells and piping systems.

  - Ensure irrigation is well constructed and water is available and operational at new sites/adjacent villages.

  - Ensure that housing and other relevant structures are constructed at new sites; and that community and service buildings for resettled people and adjacent villages are
constructed or rehabilitated.

- Ensure that all new sites have reliable electricity supplies and be linked to the Lao grid where feasible, and in accordance with GOL planning.

**Livelihood Team**

- Develop suitable agricultural cropping systems, and carry out extension and technical support work to ensure food security and income targets for resettled people and villagers in adjacent villages.

- Ensure sustainable livestock and aquaculture development for all households (resettled people and adjacent population) in the adjacent villages.

- Establish project nursery(s) for the development of tree crops and domesticated NTFPs and support their proliferation with extension work.

- Facilitate management of the village forest resources through zoning, regulations and raising awareness.

- Investigate markets and marketing-chains for agricultural produce and forge links with middlemen and cash crop companies.

- Develop handicraft and small-scale business opportunities and identify market channels.

- Together with the Monitoring Unit, monitor livelihood development until income targets are reached and sustained.
+ Project Lands and Compensation Team

- Liaise with Infrastructure Section to ensure all infrastructures are in place for villagers who have to relocate from Project Construction Lands areas.

- Liaise with Livelihood Section to ensure PAP benefit from livelihood activities, where required.

- Valuate the assets lost due to construction activities in Project Construction Lands.

- Undertake cash compensation to entitled APs together with Compensation Disbursement Agent.

b. Social Development Section

The Social Development Section (SDS) (Fig. 6.4-3) will have the primary responsibility for all consultations in the project area as well as community and human services aspects of the resettlement and livelihood improvement process. It will initiate and monitor
consultations, health programs, education programs and a range of community development initiatives.

The Section will be headed by an experienced Manager with proven social mitigation and development project experience, who will report directly to the EMO/SMO Manager, work closely with the Liaison Officer and GOL support staff. The SD Unit will seek intermittent input from an Ethnic Specialist and a Gender Specialist, both during detailed planning, and the commencement of implementation, in order to ensure that ethnic and gender aspects are mainstreamed. The SDS will also ensure that the needs of vulnerable groups are addressed.

![Diagram of Social Development Section]

**Fig. 6.4-3: Structure of the Social Development Section**

The main tasks of the four teams in the Social Development Section will consist of the following:

**Consultation Team**

- Participatory planning support for resettled people and villagers in adjacent villages, ensuring that local concerns and beliefs are incorporated.

- Participatory planning for downstream, the watershed and project construction land areas.

- Establish consultation feedback loops between affected households and project implementing organizations.

- Ensure that gender and ethnic issues are incorporated into planning procedures and implementation.

- Ensure that all affected households are familiar with content and mechanisms of the Grievance Procedure.
**Community Development Team**

- Prepare a comprehensive community development strategy for resettled people and other project affected groups.

- Facilitate the implementation of savings and credit schemes.

- Assist villagers in developing off-farm livelihood alternatives and cottage industries.

- Pay special attention to vulnerable groups in the resettlement and livelihood development processes.

- Link up with NGOs for community development initiatives.

**Health Team**

- Facilitate preparation of a comprehensive long-term health strategy and annual implementation plan for resettled people and other project-affected groups.

- Oversee construction of new and upgrading of existing health facilities and the transfer to and orientation/training of MOH staff for these facilities.

- Establish baseline data on the health status of the population in project-affected villages; facilitate annual surveys to measure changes in health status against the baseline; report to the project proponent, MOH and any other relevant GOL line ministry on changes in health status.

- Liaise with MOH at national, provincial and district level to link project supported activities with GOL health initiatives.

- Provide direct mentoring and support to Provincial Health Office (PHO) and District Health Office (DHO) staffs to conduct regular monitoring and supervision of health facilities and service delivery standards.

- Liaise with health and safety officers appointed by dam-site construction companies on issues related to effects on the population of adjacent villages of risks to health such as water pollution, dusts, and vehicular accidents.

- Liaise with multilateral, bilateral and NGO agencies active in health sector programs, to maximize cooperation and minimize duplication; participate in MOH activities to facilitate sector-wide coordination.
Education Team

- Facilitate development of a comprehensive education and training strategy and plan, for resettled people and other project-affected groups.
- Oversee the reestablishment and upgrading of school facilities
- Assist District and Provincial education authorities in recruiting teachers and link up with GOL education initiatives.
- Monitor education programs and school attendance.

c. Environment Section

The major tasks of the Environment Section (Fig. 6.4-4) are to monitor all the baseline data and information concerning the environment like fish and fishery, hydrology, water quality, river bank erosion etc. And the implementation of the mitigation measures that were mentioned in EMMP; the Environment Section may be divided into two following teams:

+ Environmental Monitoring Team

- Establish baseline data on the environment status of the project area environment in the watershed, upstream, dam site and downstream area.
- Carry out daily, weekly or monthly (as planned) schedule for monitoring of the environmental changes.
- Report to Environment Working Group for the timely management of the environment status in the Project area.

+ Construction Monitoring Team

- Make a detailed plan to follow up with the contractors in all construction sites (including access road).
- Ensure the contractors provide the environmental management for all project work.
- Monitoring of the safety issues of the workers in the work site.
- Draft Environmental Instructions for environment management of the Environment Working Group and EMU for consideration of further instruction for contractors.
To respond effectively to matters raised by the NESMC or EMU and to effectively manage the environmental performance of the Project, the EMO/SMO will set up an Environmental Management Information System to process record all monitoring data compliance, management decisions and corrective actions taken. Anticipated documentation to be filed includes:

- Active and obsolete printed versions of the RAP sub-plans.
- All plans including resettlement site plans.
- Census of resettlement site and agricultural holdings of each household.
- All communications which have social and environmental implications.
- All monitoring reports from EMO/SMO and the Contractor staff.
- Quarterly Reports.
- Grievances and complaints register.
- Training materials.
- Training attendance registers.
- Non-compliance special reports.
- Lao environmental legislation.
- Permits, legal documents and authorizing letters.
- Monthly e-meeting minutes.
- Occupational Health and Safety reports.
- Medical reports.

**Fig. 6.4-4: Structure of the Social Development Section**
Disciplinary procedures.

Fig. 6.4-5: Institutional Arrangement for SMMP
7 CONSULTATION AND GRIEVANCE REDRESS

7.1 CONSULTATION AND INVOLVEMENT OF VILLAGERS

During project planning and design a full series of consultation has been or will be conducted by the Project Developer and Environment and Social Impact Assessment Consultant (NCG). The consultation and involvement will be continuous through the life of the project.

7.2 GRIEVANCE REDRESS

Pak Beng HPP will undertake grievance resolution in accordance with the provisions in Article 13 of the Decree on Compensation and Resettlement of People Affected by Development Projects, and the Technical Guidelines on Compensation and Resettlement. All grievances related to any aspect of the project or sub-projects will be handled via consultations aimed at resolving matters through consensus at the project level. In this way the possibility of conflicts escalating and being passed on to higher (district level or ultimately the national legal system) levels will be avoided to whatever extent possible. All grievances, whether verbal or received in writing, will be documented by the project or its agent, including actions taken, minutes of meetings, outstanding issues and results.

Upon approval of the project, Pak Beng HPP will make a formal request to the GOL to establish a Grievance Redress Committee (GRC) in each project district to address any complaints or grievances regarding land acquisition, compensation and resettlement submitted by APs. Each district Grievance Redress Committee (GRC) will be comprised of:

- Representative from local government (Chair).
- Provincial Water Resource of Environmental Agency (WREA).
- Provincial Ministry of Energy and Mines.
- Provincial Land Office.
- Village heads.
- Two village elders or representatives of local mass organization(s), at least one of whom should be a woman.
- Two representatives from PAFs (at least one being female or representative of group ethnic group).

Participation of project-affected people is ensured through their involvement in the Grievance Redress Committees (GRC) as shown above. The PMU and Pak Beng HPP field offices will establish and maintain ongoing interaction with the PAFs and communities to identify problems and undertake timely remedial actions. There will be involvement of local institutions or organizations, non-government organizations (NGOs), women’s unions and
community-based organizations (CBOs) in terms of membership of the GRC (as decided by the Chair).

The process will be as follows: In the first instance, APs will submit their grievances to Pak Beng HPP via the project implementation team. If the AP is not satisfied with Pak Beng HPP’s efforts to resolve the problem or grievance, within 15 days the matter can be referred by the AP to the district GRC. If the AP does not receive any response from the district level GRC within 15 days of filing the complaint, or the matter is not resolved to the AP’s satisfaction, the complaint may then be submitted to the Pak Beng HPP head office and MONRE. If the matter still remains unresolved within 20 days of filing the complaint with Pak Beng HPP head office and MONRE, the AP(s) may then forward the case to the Court of Law. The Project will cover all administrative and legal costs incurred relating to the grievance redress procedures.

7.3 DISCLOSURE INFORMATION

In parallel with the detailed design, census, DMS and SES activities, Pak Beng HPP in conjunction with the Provincial WREA staff will continue to consult and disseminate project and resettlement-related information to APs via local authorities. Community meetings will be held and opinions and suggestions elicited from the APs will be reflected in the Updated RP. Pak Beng HPP will inform all APs about the Project’s potential impacts, locations to be flooded, location of access roads, restrictions on land use in the project following construction, compensation principles and appeal procedures. All consultations with APs, including questions asked and answers provided, will be recorded including information on gender and ethnic group of people consulted. Particular efforts will be made to ensure women are consulted and informed, enlisting the help as required of the Lao Women’s Union.

In line with Government disclosure policy, key information in the updated RP such as measurement of losses, detailed asset valuation, policy principles and entitlements and special provisions, grievance procedures, timing for payments and displacement schedule, and proposed activities; and avenues for grievance redress. Copies of the results of the replacement cost survey and DMS will be made available in the district and village offices.
8 SMMP IMPLEMENTATION MONITORING AND EVALUATION

8.1 MONITORING REQUIREMENT
The project monitoring group will be composed of staff members from each of the Resettlement, Social Development and Environment groups. The members of each group will monitor their own group according to the requirements laid out in the RAP, SMMP and EMMP. The Monitoring Unit should include the following specialists:

- A project monitoring Specialist with a strong background in mathematics or statistics and a relevant social or natural science plus experience in planning, implementing, monitoring and evaluating resettlement plans or projects to international standards on large hydropower projects, and preferably with relevant experience in Lao PDR or elsewhere in the region.

- Lao National Resettlement Specialists or Social Development Specialists with strong background in relevant social sciences and demonstrated experience in organizing and managing socioeconomic data collection and analysis, PRA, group facilitation, and with relevant experience in the Project area.

- Surveyors with demonstrated experience in household surveys, data input and analysis and participatory rapid appraisal techniques, and group facilitation will be used. Surveyors and monitoring team leaders should have an equal gender mix and local language skills.

- An Ethnic and/or Gender Specialist who will probably be a member of the social development team will assist the monitoring unit to ensure that Ethnic and Gender issues are included in the various monitoring programs.

8.2 MONITORING INDICATORS
Good practice in resettlement requires continuously incorporating the learning that takes place in programs using a variety of implementation strategies and institutional models, allowing the Social Management and Monitoring Plan (SMMP) to evolve as needed. Monitoring provides the mechanism by which to do this. Monitoring and evaluation of the SMMP will occur as part of the overall RAP Monitoring and Evaluation Plan. Participatory self-monitoring by affected people will be essential to accurate monitoring of the SMMP. For example monitoring of the effectiveness of the health team in providing access to health services will be undertaken by individual resettled people through their own personal assessment of the community's access to health services. The monitoring team will simply undertake an abbreviated social assessment every 6 months.
Questions the monitoring team will be asked to answer through such assessments will include as a minimum the following:

- Have any people used the grievance redress procedures? What were the outcomes?
- Have any intra-community conflicts been reported? How were they resolved?
- Were special measures for ethnic peoples were implemented?
- What changes have taken place in key social and cultural parameters relating to living standards?
- What changes have occurred for vulnerable groups?
- Are people able to access schools, health services, cultural sites and activities?
- What is the extent and quality of participation in community groups?
- Has access to cultural sites and events been restored?
- Have perceptions of "community" been restored?
- Do people believe local spiritual needs are being met?
- Have people achieved replacement of key social and cultural elements?
- Have people reported incidents of corruption?
- Are women taking increasing roles in public decision making?

In addition, to answering these questions through appropriately designed survey questions, specific data will also be collected based on a set of indicators of both the state of social development and the state of the livelihood system. Quantitative data on the level of social development attained will include, but will not be limited to: school attendance, Early Childhood Care for Development (ECCD) centre attendance, teacher attendance (ensuring all schools have sufficient teaching staff assigned and active), number of classrooms with adequate learning materials, participation rate in adult literacy classes, village literacy rate, ratio of women to men on village committees, etc. All of the above data will be disaggregated by sex.

Quantitative Indicators of the system of livelihood for each family include:

- Paddy yield in tonnes per ha.
- Vegetable crop yields.
- Fish production (spawning and nursing survival rates, yield by weight and by cash value).
- Animal production: the animal weight and the survival rate after disease control.
- Design, making and marketing for women's products.
- Whatever overall socio-economic well-being indicators that Project selects as measures of the attainment of livelihood targets, income/poverty levels at both household and village level.

Monitoring of community management and benefit distribution will also be undertaken but the indicators of this will be decided upon by the communities themselves.

It is not possible to accurately define cost when the level of impact is not known for sure. The Project will need to characterize the existing situation accurately, and then closely monitor what actually happens when the dam's effects begin to be felt. A contingency budget has been established for livelihood improvement in the upstream villages; for example if fisheries monitoring shows a significant impact on the fishery by the Project, funds can be provided. The budget is by no means meant to be used equally for each village. The amount to be used will depend on the impact, the size of the village, the importance of fishing and cost of livelihood activities (crop and livestock production) for each specific village.
9 ESTIMATED BUDGET FOR SMMP

The total budget for the Social Management and Monitoring Plan is estimated at about 10,280,062 USD. The SMMP cost is directly included within the agricultural and forestry extension, fisheries programme, health and education outreach, community gain and social development fund. Costs given below include capital cost, the first 5 year recurrent cost during construction work and the recurrent cost out to year 25 during project operation. The total yearly budget estimate is in Table 5. The total estimated cost for the RAP only is shown in Table 6.

Agricultural and forestry extension: Slash and burn is the only rice production system used in the area which is considered non-sustainable agriculture and forestry extension program will be introduced. The program will provide more sustainable solutions that will be adapted for the local communities while generating better income and preserving environmental resources. The program would also develop markets for the produce.

Fisheries programme: To compensate for the loss of fish, a fishery extension program will be introduced to local people by building a fish pond or by some other related aquatic development such as frog aquaculture or some other enterprise which could be agreed upon with local villagers during consultation.

Health and education outreach program: Health, nutrition, and education standards are inadequate in these remote areas and these are directly linked to the continuation of poverty in the area. The program will include both the construction phase and some years of the project operation phase as well.

<table>
<thead>
<tr>
<th>No</th>
<th>Action</th>
<th>Responsibility</th>
<th>Cost and Funding (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strengthen and capacity building among workforce and affected communities in Disease prevention and health promotion</td>
<td>DHP, PHO, DHO,HC, Developer</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Supporting HIV/AIDS and STIs prevention and control programs</td>
<td>DHP, PHO, DHO,HC, Developer</td>
<td></td>
</tr>
</tbody>
</table>
---

**SMMP - Social Management and Monitoring Plan**

<table>
<thead>
<tr>
<th>No</th>
<th>Action</th>
<th>Responsibility</th>
<th>Cost and Funding (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Supporting malaria and other infectious diseases prevention within and surrounding areas of the project.</td>
<td>DHP, PHO, DHO, HC, Developer</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Support and improve the Provincial and districts health office in development of Medical services both facilities and human resources</td>
<td>DHP, PHO, DHO, HC, Project Developer</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Support the communities in proper water supply and sanitation particularly affected Villages</td>
<td>PHO, DHO, HC, Project Developer</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Health Education for disease prevention and Health promotion among community within and surrounding of Pak Beng HPP</td>
<td>DHO, HC</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Regularly monitoring indicators of health and nutritional status among workforce and effects community</td>
<td>PHO, DHO, HC, Project Developer</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Yearly Monitoring and Evaluation on Health</td>
<td>MOH, Project Development</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL PER YEAR**

---

Education program aimed to help local people to improve their knowledge and could also participate in the project activities. This could also provide through a scholarship to the village student and district especially for health and administration officers.

A proposed of Social Development Fund is to help village with more sustainable of the social program to support the local people. PESMC give a direction for local affected communities should use this fund for development in the area.

Archaeology and Culture Heritage: This program will support (1). Lao specialists for the government office and to identify the Archaeology and Culture Heritage site if there is such place and make a recommendation for the project to preserve them; (2). The budget is also allocated for the case of the ceremony cost for the cemetery, spirit and tempo site. Budget for Archaeology and Culture Heritage is design in table below:
### Table 9-2: Summary estimated cost of the SMMP for Pak Beng Project

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Annual Recurrent Cost Construction Phase (5 Year)</th>
<th>Annual Recurrent Cost Operation Phase (25 Years)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Mitigation, Management and Monitoring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.</td>
<td>Social Management Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Agricultural &amp; forestry extension</td>
<td>20,000</td>
<td>100,000</td>
<td>120,000</td>
</tr>
<tr>
<td>2</td>
<td>Fisheries program</td>
<td>50,000</td>
<td>200,000</td>
<td>250,000</td>
</tr>
<tr>
<td>3</td>
<td>Health program</td>
<td>25,000</td>
<td>200,000</td>
<td>225,000</td>
</tr>
<tr>
<td>4</td>
<td>Education program</td>
<td>60,000</td>
<td>300,000</td>
<td>360,000</td>
</tr>
<tr>
<td>5</td>
<td>Social Development Fund</td>
<td>80,000</td>
<td>400,000</td>
<td>480,000</td>
</tr>
<tr>
<td>6</td>
<td>Archaeology and Culture Heritage</td>
<td>18,000</td>
<td></td>
<td>18,000</td>
</tr>
<tr>
<td>7</td>
<td>Resettlement and Compensation Budget</td>
<td>8,582,062</td>
<td></td>
<td>8,582,062</td>
</tr>
<tr>
<td>II.</td>
<td>Social Monitoring Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Internal Monitoring</td>
<td>50,000</td>
<td>60,000</td>
<td>110,000</td>
</tr>
<tr>
<td>2</td>
<td>Independent Monitoring</td>
<td>50,000</td>
<td>60,000</td>
<td>135,000</td>
</tr>
<tr>
<td></td>
<td>Total:</td>
<td>8,935,062</td>
<td>1,320,000</td>
<td>10,280,062</td>
</tr>
</tbody>
</table>
10 IMPLEMENTATION SCHEDULES

Project construction is expected to take about 5 years after which commercial operation would commence. Within these 5 years, the most serious milestone that must be planned and completed, correctly and on time, is the Resettlement of the population that will be affected by the project.

After the resettlement is complete the project will fully concentrate on the livelihood restoration program and make sure the affected people will have a better life than prior to project. Most of the time sent for this program will be in the operation phase.
### Table 10-1: Proposed work schedule for SMMP implementation

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Construction</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Year 1</td>
<td>Year 2-4</td>
</tr>
<tr>
<td>I.</td>
<td>Social Management Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Agricultural &amp; forestry extension</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Fisheries program</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Health program</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Education program</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Social Development Fund</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Ethnic People Development Plan</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Archaeology and Culture Heritage</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>II.</td>
<td>Social Monitoring Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Internal Monitoring</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Independent Monitoring</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
11 REPORTING

The reporting program must satisfy 3 objectives:

- To provide a regular distribution of information through the several parties involved in the project.
- To set up a formal framework for performance achievement evaluation.
- To assist in a fast decision making procedure in order to implement within the shortest time any decision taken by concerned parties.

The system is based on 8 types of reports:

a) **Day to day report**: filled by the Environmental and Social Manager (ESM) in order to take formal notes of daily events, decisions, actions. These reports are only registered for further consultation when necessary.

b) **Weekly report**: prepared by the ESM and submitted to the Project Manager (PM).

c) **Monthly report**: prepared by the ESM for submission to PM, the reports will summarize:
   - Activities carried out during the month, task completed, personnel involvement, schedule of activities.
   - Problems encountered, decisions taken.
   - Major issues under debate, proposed solutions.
   - Proposed activities for the coming months.
   - Budget situation: expenses, invoices, fund reallocation…etc.
   - List of major meeting held during the month.

d) **Meeting reports**: minute of monthly (or ad-hoc) coordination meetings held with Pak Beng HPP (EMC and others). To be prepared by Secretary of the Pak Beng HPPEMC, signed by the Chairman and counter signed by the EM. For submission to EMO/SMO, Project Manager and Bauxite Mine Project EMC members.

e) **Review reports**: to be submitted to EMO/SMO and lender (if any), every four months the first 2 years and every 6 months after. These report will summarize major issues addressed, major achievements, major pending problems, budget situation,
recommended strategy and work plan until the next review. They will be prepared by the review team.

f) **Annual review report**: to be submitted by EMO/SMO to Project Proponent, DoE (MEM), MONRE and lender (if any), summarizing the progress of environmental mitigation and monitoring activities during the last 12 months of activity and presenting strategy and work program for coming 12 months.

g) **Technical report**: prepared by sub-contracted Agencies or consultants. Submitted to EMO/SMO according to schedule.

h) **Independent Monitoring report**: Independent consultant will be hired and paid by project to monitor and advise on the implementation of the environment and social mitigation measures.

### Table 11-1: Summary of Reporting Program

<table>
<thead>
<tr>
<th>Report Types</th>
<th>By:</th>
<th>To:</th>
<th>Purpose:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Report</td>
<td>EM</td>
<td>Project files</td>
<td>Registration of daily events. For consultation only</td>
</tr>
<tr>
<td>Weekly Report</td>
<td>EM</td>
<td>PM</td>
<td>Follow-up of social and environmental activities</td>
</tr>
<tr>
<td>Meeting Reports (monthly and ad-hoc)</td>
<td>EMC</td>
<td>EM</td>
<td>Signed by concerned parties &amp; summarized in monthly report</td>
</tr>
<tr>
<td>Technical Reports</td>
<td>GOL Agencies, consultants</td>
<td>EM, Cons. Engineer</td>
<td>According to technical</td>
</tr>
<tr>
<td>Monthly Report (Project)</td>
<td>EM</td>
<td>PM, EMO/SMO, DoE/MEM, MONRE</td>
<td>Monitoring of RAP implementation, Follow-up of contract obligations</td>
</tr>
<tr>
<td>Monthly Report (Contractor)</td>
<td>EM</td>
<td>PM, EMO/SMO, DoE/MEM, MONRE</td>
<td></td>
</tr>
<tr>
<td>Interim Review Reports (4 to 6 monthly)</td>
<td>Review mission member</td>
<td>EMO/SMO, DoE/MEM, MONRE</td>
<td>Progress in RAP implementation, issues &amp;achievement</td>
</tr>
<tr>
<td>Report Types</td>
<td>By:</td>
<td>To:</td>
<td>Purpose:</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>--------------------------------------------------------------------</td>
</tr>
<tr>
<td>Annual Review Report</td>
<td>Review mission member</td>
<td>EMO/SMO, DoE/MEM, MONRE</td>
<td>Annual status of RAP achievement</td>
</tr>
<tr>
<td>Internal Review Report</td>
<td>Internal review mission</td>
<td>Project Management</td>
<td>Progress in EMMP and SMMP implementation, issues &amp; achievement</td>
</tr>
<tr>
<td>Independent Review</td>
<td>Independent review mission</td>
<td>DoE/MEM, MONRE</td>
<td>Progress in EMMP and SMMP implementation, issues &amp; achievement</td>
</tr>
</tbody>
</table>