# DON SAHONG HYDROPOWER PROJECT, LAO PDR

# SOCIAL MANAGEMENT AND MONITORING PLAN

# **FINAL**

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**Prepared For:** 

**MEGA FIRST CORPORATION BERHAD** 

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MFCB

# SOCIAL MANAGEMENT AND MONITORING PLAN DON SAHONG HYDROPOWER PROJECT

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#### ABBREVIATIONS AND ACRONYMS

An international infrastructure engineering and consulting firm, author of **AECOM** 

the Final Feasibility Study and Engineering Status Report

**APW** Australian Power and Water an author of the 2007 Draft EIA

**ASEAN** Association of South East Asian Nations

**CESVI** Cooperazione e Sviluppo (World Aid from Italy)

CIA **Cumulative Impact Assessment** 

CMPF Centre of Malariology, Parasitological and Entomology **DAFEO** District Agriculture and Forestry Extension Office

DOE Department of Electricity

**DPRA** Development Project Responsible Agency

**DSHPP** Don Sahong Hydropower Project

ED **Essential Drugs** EDL Electricité du Laos

**EIA Environmental Impact Assessment EMO Environmental Management Office** 

**EMMP Environmental Management and Monitoring Plan** 

DSHPP Engineering Status Report (supersedes Final Feasibility Study **ESR** 

EU **European Union** FCZ Fishing Control Zone **FFS** Final Feasibility Study

**FishMAP** DSHPP Fisheries Monitoring and Action Plan

FS Feasibility Study GFI Great Fault Line

**GMS** Greater Mekong Sub region

**GOL** Government of Lao People's Democratic Republic

**GWh** Gigawatt hours

Hectare ha HC Health Center

IEE Initial Environmental Examination **IPP** Independent Power Producer

International Union for Conservation of Nature **IUCN** 

Joint Monitoring Program for Water Supply and Sanitation by **JMP** 

WHO/UNICEF

Agreement on the Cooperation for the Sustainable Development of the **MA95** 

Mekong River Basin made in 1995

MAF Ministry of Agriculture and Forestry of Lao PDR

**MDG** Millennium Development Goals

MEM Ministry of Energy and Mines of Lao PDR

**MFCB** Mega First Corporation Berhad

Ministry of Industry and Handicrafts of Lao PDR MIH

MOH Ministry of Health of Lao PDR

Ministry of Natural Resources and Environment of Lao PDR (formerly MoNRE

WREA)

MOU Memorandum of Understanding **MRC** Mekong River Commission

MW Megawatt (1 million watts of power)

NAFRI National Agriculture and Forestry Research Institute of Lao PDR

NBCA National Biodiversity Conservation Area

NCC National Consulting Company
NEAP National Environmental Action Plan

NGPES National Growth and Poverty Eradication Strategy

NTFPs Non-Timber Forestry Products

PAP Project Affected Persons
PEC PEC Konsult Sdn Bhd
PRC People's Republic of China
RAP Resettlement Action Plan

RESDALAO Renewable Energy for Sustainable Development Association

SIA Social Impact Assessment

SMMP Social Management and Monitoring Plan

SOW Statement of Work

STD Sexually-transmitted disease TBA Traditional Birth Attendant

TOR Terms of Reference

UNICEF United Nations Children Fund

VHK Village Health Kit

VHV Village Health Volunteer WHO World Health Organization

WREA Water Resources and Environment Administration (now MoNRE)

#### **GLOSSARY OF COMMON LAO WORDS FOR GEOGRAPHICAL LOCATIONS**

Don (e) Island

Hang tail / downstream tip (of the island)

Hou River Channel

Hua head or upstream tip (of the island)

#### 1 INTRODUCTION and OVERVIEW

#### Background

Mega First Corporation Berhad (MFCB) signed a Memorandum of Understanding with the Government of Lao PDR (GOL) on March 23, 2006, giving MFCB exclusive rights to investigate the technical, environmental and economic feasibility of the Don Sahong Hydropower Project (DSHPP). The figure at right shows the general location of the Project.

# Potential Environmental and Social Concerns of the DSHPP

While hydropower dams can provide a significant impetus to regional and national economic growth and development, it is well known that they may also cause economic, environmental and social concerns. The EIA 2013 (and the associated Social Impact Assessment (SIA 2013)) have identified and assessed the important potential impacts of the Project. In particular these were:



- impacts on the flow of the Mekong River;
- impacts on fish migration and implications for fisheries in the vicinity of the DSHPP and in the wider Mekong basin;
- social impacts in terms of displacing people and their resettlement;
- social impacts on the livelihoods of directly affected communities; and
- social impacts on the health and nutrition of affected communities.

#### Legal and Institutional Framework

Key organizations and agencies involved in the environmental assessment process for hydropower projects include: the Government of Lao PDR (GOL); the Prime Minister's Office (PMO); Ministry of Natural Resources and Environment (MoNRE); the Ministry of Agriculture and Forestry (MAF); the Water Resources Committee; the Ministry of Energy and Mines (MEM); the Environmental Management Unit of MEM Hydropower Department; the Ministry of Finance; the Department of National Land-use and Planning; the Ministry of Education and Culture; and the District Governor(s) of the Project location. Measures for monitoring and managing potential environmental and socioeconomic impacts have been developed based on Lao PDR legislation, regulations, decrees, standards and guidelines.

#### Impacts and Mitigation

The EIA 2013 includes a summary of all potential impacts and mitigations related to the DSHPP. The following is a summary of the principal issues which will potentially affect the local communities in the project area.

#### Fish Migration and Fisheries

The long-term sustainability of fisheries in the Mekong River that depend on migratory fish populations face a number of threats. The creation of man-made barriers across mainstream

channels is one which is directly applicable to the DSHPP and this problem has been addressed carefully in the EIA 2013.

Another significant and growing threat is the over-exploitation of migratory fish populations during critical life history stages. This is an area where the Project proposes to assist in more active resource management, by encouraging community co-management of the fisheries within the immediate Project footprint. This would be achieved by working with local villages and GOL resource managers to protect areas where fish may accumulate from over exploitation.

The first step, for the Project will be to create non-fisheries related livelihood income systems to compensate for direct Project related impacts arising from the permanent loss of fish-traps in the Hou Sahong and to reduce fishing pressure on alternate fish migration pathways created by channel modification in the Hou Xang Pheuak and the Hou Sadam.

#### Resettlement, Social Impacts and Livelihoods

Only eleven (11) households will need to be relocated and a resettlement action plan (RAP) has been developed and submitted to the GOL, to resettle these families and to provide for their future welfare. In addition, this Social Management and Monitoring Plan (SMMP) has been prepared to improve infrastructure (water supply, sanitation, education, health facilities and electric power) for the household whose livelihoods will be directly affected by the Project.

The implementation of the Project will be of considerable economic benefit to Lao PDR and will provide improved infrastructure and stimulation for growth in the Champasak Province.

#### Health and Nutrition

The health risks facing people living in the Lao PDR are higher than for those living elsewhere in the region, based on current assessment of public health indicators like child mortality rates. People living on the islands in the Project area also face additional health problems due to their isolation from health services on the mainland and because of specific local diseases like schistosomiasis, which is due to contact with river water.

The hydropower project can improve this situation and reduce the risk from these diseases to both locals and temporary workers by implementing mitigation plans outlined in the SMMP.

At the same time, the Project is mindful that hydropower project camps can potentially aggravate local public health situations because of the concentration of external labor forces in temporary camps.

Numerous mitigating actions appropriate for the DSHPP management in relation to public health are proposed and discussed in the SIA and SMMP associated with this EIA. The DSHPP plans to assist local and regional health agencies to maintain and improve the existing public health standards and will implement its own programs to educate the workforce and local population alike of potential health risks, change dangerous behaviours and to improve the standards of sanitation and potable water quality within the Project area.

The DSHPP will engage a medical consultant to prepare a detailed plan for the construction operation. The medical plan for the DSHPP project should be pro-active, detail the exact role of DSHPP and contractor health and emergency response facilities with relation to local communities and should be a priority for the Project. Such a program is commonly linked with the overall safety program but in this case warrants special and early attention.

#### Mitigation Measures

At the project level, MFCB and the DSHPP planners have designed a process to avoid and/or mitigate social impacts. These include:

 A smaller footprint for the reservoir and the other project components than was originally proposed.

- The potential use of the dried river bed for construction laydown areas and camps instead of taking land on the two islands.
- Engineering aspects of the embankments design to reduce impacts and to provide alternative ways of providing irrigation water to villages on the two islands. Although a gravity irrigation system is preferred, the Project would provide pumps if necessary.
- Minimization of noise and vibration from blasting. A warning siren will be sounded and daily blasting will be done as much as possible all at once rather than spreading out many individual blasts over the day.
- The blasting for the downstream excavations will only be done after the coffer dams are constructed, so blasting will be on dry land and will avoid impacts to dolphins or fish that would occur with underwater blasting.
- The construction company will be selected based on their experience, expertise, and financial strength to make sure that the project is built according to plan and that there is little or no danger of the project being abandoned due to contractor's problems.
- Unlike Nam Theun 2 which emphasized "livelihood restoration", DSHPP will strive for "livelihood betterment". This may include the appointment of "wealth-creation" advisors, who would work with the local people to help them maximize the Project's local economic benefits (such as increased land values) and help create opportunities to add value to existing agricultural and fishery products or switch to other higher-valued forms of agriculture).

#### Consultation

Extensive consultation with stakeholders has been carried out in Lao PDR and Cambodia. This has included discussions and workshops with concerned government agencies, NGOs, and the affected people.

### 1.1 Background to development of this SMMP

This document has been prepared at the request of the Water Resources and Environment Administration, now the Ministry of Natural Resources and Environment (MoNRE) and the Department of Electricity (DOE). These agencies required the environmental documentation completed in 2007<sup>1</sup> (EIA 2007) to be updated, reformatted, and presented as eight separate reports:

- 1. Environmental Impact Assessment (EIA)
- 2. Environmental Management AND Monitoring Plan (EMMP)
- 3. Social Impact Assessment (SIA)
- 4. Social Management and Monitoring Plan (SMMP)
- 5. Resettlement Action Plan (RAP)
- 6. Cumulative Impact Assessment (CIA)
- 7. Initial Environmental Examination (IEE) for the Transmission Lines
- 8. IEE for the access road and bridge

This SMMP is one of those reports.

<sup>&</sup>lt;sup>1</sup> Prepared by APW and PEC (2007). Don Sahong Hydropower Project, Lao PDR. Environmental Impact Assessment Report. Volumes 1 and 2, December 2007.

# 1.2 Objectives of the Social Management and Monitoring Plan

An SMMP is an important tool for addressing social concerns and incorporating them into the project design. The general objectives of SMMP cover the following:

- To address and provide mitigation for the social issues and impacts discussed in the SIA. The SMMP outlines targeted project investments and identifies the stakeholders;
- To help in the design of social services that may be provided in order to improve the affected people's quality of life, while achieving the project's economic and social goals through relevant technical and programmatic activities;
- To help in the formulation of a social strategy for participatory implementation. It is also
  involved in assisting communities to determine their development priorities, and as a
  process for incorporating social dimensions into development projects.

#### 1.3 SMMP Process

This Social Management and Monitoring Plan (SMMP) was prepared based on the following sources:

- Three stakeholder's meetings at Pakse, at Muang Khong and at Hang Sadam Village.
- Household surveys using interviews of household head or representatives of potentially directly/indirectly affected villages in project area.
- Focus group on social issues among interest groups in the village including Lao Women's Union and other interest groups.
- Consultation with village leaders and authorities on project development.
- Tourism survey using interviews with tour companies operating in the area and local boat service association and guesthouses associations.

This SMMP has been prepared as a guideline for the GOL and the DSHPP's Managers to improve the social welfare of the project area villages by focusing on how to enhance the beneficiary aspects of DSHPP as well as to mitigate remaining long-term negative project impacts.

As the separately-bound Resettlement Action Plan (RAP) focuses mainly on the to-be-resettled households of the project development, this SMMP covers a broader target involving all households living in project affected villages.

The SMMP provides an outline of the institutional arrangements that are needed to implement it, and presents an initial budget that is committed to by the Developers.

#### 2 PROJECT DESCRIPTION

#### 2.1 Description of the DSHPP and Project Features

The DSHPP is a run-of-river project situated entirely within the Hou Sahong, a 5 kilometre long channel between the islands of Don Sadam and Don Sahong (see figure below). The project layout envisaged is a concrete box-like structure comprising the dam and powerhouse to be constructed about 130 meters upstream of the downstream junction of the Hou Sahong with the main channel. The foundations for this structure will be about 15 m below the existing channel bed and will extend from bank to bank across the Hou Sahong channel.

Construction of the dam and powerhouse will cause water to back up in Hou Sahong, creating a small headpond. the level of which will vary with the level of the Mekong upstream. crest of the barrage is set at RL 76.9m, which exceeds the maximum level of the Mekong at the upstream entrance to the Hou Sahong. Because the topography of the islands two that



form the banks of the Hou Sahong reservoir is below this level, embankments will be built on both sides and roughly parallel with the channel to retain the water.

At present the bed levels in the upper reaches of the Hou Sahong restrict flow into the channel during periods of low flow. To improve flow through the Hou Sahong the river bed will be excavated to an average of 3 m and 1.5 m depth at the upstream and downstream ends of the channel, respectively. A limited area will also be excavated downstream of the powerhouse. Excavated material will be used for concrete aggregate and to construct the retaining embankments. Any excess rock will be disposed of at carefully pre-selected locations on Don Sadam and Don Sahong. Excavation and other channel modifications are also proposed in Hou Xang Pheuak and in Hou Sadam to provide alternative fish migration routes to replace the Hou Sahong, which will be blocked to upstream movement of fish. This will be a vital component of the DSHPP fish migration mitigation program.

More details of the DSHPP are provided in Section 2.1 of the associated EIA 2013.

#### 3 POLICY FRAMEWORK FOR COMPENSATION

The general policy framework for compensating Project Affected People (PAP) by the DSHPP is explained in Section 3 of the SIA 2013. This SMMP was prepared based the laws and regulations on resettlement of the Lao PDR listed therein. The policy section of the SIA elaborates the basis for the following items considered in the SMMP:

- Criteria for Eligibility
- Gender Mainstreaming Strategy
- Compensation entitlements

The compensation policy outlined in the SIA 2013 includes a summary Entitlement Matrix that is reproduced here as Table 1.

**Table 1 Compensation Entitlement Matrix for DSHPP** 

TYPE OF LOSS	ENTITLED PERSONS	COMPENSATION POLICY	IMPLEMENTATION ISSUES
Dwellings	Registered taxpayer or occupant identified during survey	Full replacement cost so as to enable affected persons to have a dwelling of at least similar size and standard	Stakeholder consensus on replacement value assessment
Residential lands	Registered taxpayer or occupant identified during survey	Replacement land if relocating to other site or compensation in cash at replacement cost for household who can move back on existing site	Stakeholder consensus on suitability of replacement land
Expenses of residential relocation	Registered taxpayer or occupant identified during survey	Lump sum payment sufficient to cover all relocation cost as agreed with the affected persons	Stakeholder consensus on definition
Rice storages	Owner identified during survey	Lump sum payment sufficient to cover all relocation cost as agreed with the affected persons	Assessment of suitability of relocation site
Retail shops	Owner identified during survey	Lump sum payment sufficient to cover all relocation cost as agreed with the affected persons	Review of shops recorded during the survey
Agricultural land	Owner or person with usage rights identified during survey	Compensation in cash at full replacement cost	Consensus among stakeholders on valuation assessment
Crops and trees	Owner or person with customary usage rights	Full replacement cost of anticipated harvest at market value	Consensus among stakeholders on valuation assessment
Fish traps (permanent)	Owner identified during survey	Compensation in cash at full replacement cost	Consensus among stakeholders on valuation assessment
Fish traps (temporary)	Owner identified during survey	Compensation in cash for full net loss of income during temporary period	Consensus among stakeholders on valuation assessment
Common property resources	Community losing the resources	Restoration of affected community buildings and structures to at least previous condition	Consensus among village committee members

TYPE OF LOSS	ENTITLED PERSONS	COMPENSATION POLICY	IMPLEMENTATION ISSUES
Temporary impact during construction	Owner or person with usage rights identified during survey	Care by contractors to avoid damaging properties; Where damage occurs, the contractor will be required to pay compensation; and Damaged property will be restored immediately to its former condition	Consensus among stakeholders and village committee

# 3.1 Overview of Compensation Entitlements for DSHPP

The DSHPP policy for compensation of complete loss of assets due to the implementation of the Project will be in accordance with the IFC principles<sup>2</sup> as follows: 1) like for like replacement; 2) substitution with similar income earning asset; or 3) cash compensation at full replacement cost (as last resort).

- Assets would include land, buildings, structures, crops and trees, and fishing traps. Any income that may be lost from fishing on Hou Sahong or other affected waterways shall be compensated based on the consideration of GOL's specific committee to be set up after project approval (but based on the project compensation principles listed above).
- Land for land arrangement will be made to residential land owners when more than 20% of their residential lands are lost and the remaining area is not viable for continued use. The land replacement will be provided to affected persons with full security of tenure, free of any tax, transfer costs and registration fee or other charge.
- When the portion of residential land to be lost represents 20% or less of total landholding with remaining area viable for continued use, compensation for lost land at full replacement cost to the affected land owners.

Partial loss of assets by Project-affected families would include restrictions on development of land (agricultural, residential, commercial and forestry) or structures and forestry as a result of DSHPP transmission line construction. In these cases compensation would be at 10% of the replacement value of the land that has been diminished due to the project. Such land parcel registration will remain with the original title holder.

Three representatives of project affected families in each village, one of whom should be representative of village women or vulnerable groups (such as poor, landless, disable, elderly, etc.) will be invited to join the Grievance Redress Committee to discuss and negotiate the compensation rates.

#### 3.2 Compensation for Loss of Land

 Compensation for agricultural land lost due to DSHPP activities shall be according to the above principles. In the case of replacement in cash, this would be at full replacement cost paid to affected land owners.

#### 3.3 Compensation for Loss of Structures and Other Immovable Assets

• Like for like replacement - Similar size and material of houses together with associated structures such as rice storage will be rebuilt in the new land settlement by the

<sup>&</sup>lt;sup>2</sup> IFC (2006). Equator Principles. International Finance Corporation.

- consideration of the project resettlement committee.
- Lost or damaged houses and structures will be compensated for full replacement cost without reducing by the cost of depreciation.

• Adequate subsistence allowance of food or their cash equivalent during the transition period should be provided to all affected house owners.

#### 3.4 Compensation for Loss of Crops, Trees and Plants

- Compensation for fruit and nut trees will be paid to affected owners of those trees based on average annual value of the produce multiplied by number of remaining productive years of the trees.
- If standing crops cannot be harvested, the land occupier will be compensated for the loss of un-harvested crops based on locally prevailing market prices for the produce.

#### 3.5 Compensation for Fish Traps and Fishery Income

- Loss of income and livelihood for all HH with fish traps in Hou Sahong will be compensated.
- Compensation rates for the net loss of fishery income will be negotiated by the Project, the GOL and the affected persons/households.
- Fish traps on other channels (e.g. Hou Sadam or Hou Xang Pheuak) which are affected by the DSHPP may be temporarily or permanently leased as part of the FishMAP Program.
   Lease rates will be based on prevailing market rates and typical catches in the vicinity for the time period during which the fish trap is leased by the DSHPP.

# 3.6 Compensation for Community Infrastructure

- Impacts to permanent public infrastructure such as roads or farm tracks, meeting places, religious places, and other public structures will be replaced by the Project at full cost of construction to a condition better than the pre-project conditions.
- Any public land that is taken temporarily due to civil works under the project will be compensated at replacement cost for net loss of income and damaged assets, crops and trees payable to the village committee preferably in kind or in cash as last resort.

#### 3.7 Compensation for Temporary Use of Private Land

 Any private land that is taken temporarily due to civil works under the project will be compensated at replacement cost for net loss of income and damaged assets, crops and trees payable to the affected land owners.

#### 4 IDENTIFICATION OF SOCIAL IMPACTS

#### 4.1 Project Impacts

The villages of Ban Hang Sadam, Ban Hua Sadam and Ban Don Sahong<sup>3</sup> located on the two islands of Don Sadam and Don Sahong will be directly impacted by the project. Two other villages namely Veunkham and Hang Khon will also be affected (to a lesser extent) (Figure 1). The baseline demographic information of these villages is presented and discussed in the separately-bound reports Social Impact Assessment (SIA 2013) and the Environmental Impact Assessment (in EIA 2013, Annex E).

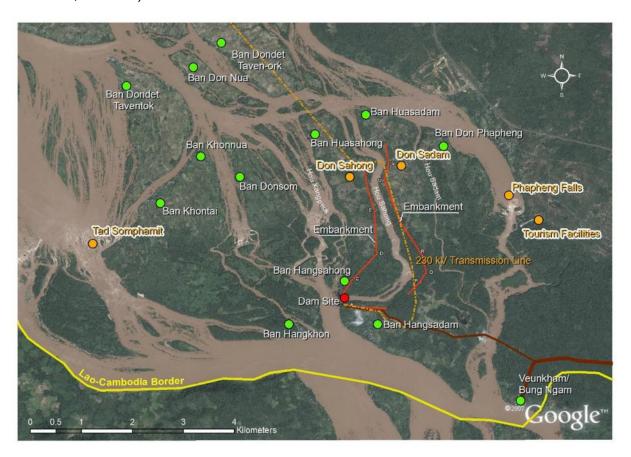


Figure 1 Villages in the DSHPP Vicinity

Social Management and Monitoring Plan – DSHPP

<sup>&</sup>lt;sup>3</sup> Ban Don Sahong is comprised of three separated hamlets namely Hua Sahong (Head Sahong), Sahong Kang (middle Sahong) and Hang Sahong (Tail Sahong). Of these Hang Sahong is subject to resettlement.

#### 4.2 Analysis of Social Impacts

Based on the baseline socio-economic survey conducted at the end of December 2006, the households (HH) most likely to be impacted by the Project can be classified into three different groups according to the level of impact:

**Group I:** Households displaced by project infrastructure and requiring resettlement to other locations.

A total of 11 households (63 persons) from 2 villages will require resettlement. This group of Project Affected Persons (Group I) is addressed in detail in the associated Resettlement Action Plan (RAP 2013), and is not covered in this SMMP report.

#### **Group II:** Other directly impacted villages

The 3 villages in areas that will be directly impacted by the Project are Ban Don Sahong excluding Ban Hang Sahong, Ban Hang Sadam and Ban Hua Sadam.

#### Group III: Indirectly impacted villages

The households in Veunkham Hamlet on the mainland (part of Ban Bung Ngam), and Ban Hang Khon on the southern part of Khon Island.

For all groups, changes and disruption in livelihood are expected to occur to different degrees.

For **Group II**, the following impacts on livelihood may be expected:

- Reduced wild fish catch for consumption and sale due to removal of fishing equipment within Hou Sahong, and implementation of Fishing Control Zones at fish migration choke points and accumulation zones within the Hou Xang Pheuak and Hou Sadam;
- Potential for decreased household income, due to decreased fish catch. Fishing activities are currently the major source of income for most households;
- Loss of food protein source from fish and aquatic animals and plants;
- Loss of bamboo forest along the Hou Sahong channel that provides both edible shoots and construction material for fishing gear, houses and other tools;
- Loss of part of the existing forest that provides construction material and fuel wood for the communities, edible fruit, as well as shelter and forage for buffaloes and cattle;
- Construction of the road from of Hua Sadam village southward to the dam site close to Hang Sadam village will claim some rice fields and thin forest;
- The change from a generally fishing-related livelihood to other forms of livelihood;
- A change from isolated island communities to host communities for project workers and visitors;
- Flow of incoming visitors and settlers, with potential increased risk of HIV/AIDS and STD infections;
- Potential change from subsistent (self-sufficient) lifestyle to a more market oriented lifestyle.

For **Group III**, living in villages located further away from the Project site, but sharing the same pool of aquatic biodiversity resources in the Mekong River may experience the following livelihood impacts:

- Change in abundance of fish stocks in the area as migrating stocks that would have passed through the Hou Sahong are redistributed into other channels (the future fish migration patterns are difficult to predict but for example, if the Project mitigations are successful, fewer fish migrating upstream will accumulate at choke points to be caught); and
- The amount of fish traded at the Veunkham market may decrease as this market receives most fish caught by fishers from Hang Sadam and Hang Sahong (i.e. downstream of the falls). The decrease of fish catch by Hang Sadam and Hang Sahong directly affects fish trade in Veunkham:

• loss of daily revenue for boat operators in Veunkham, from tourists taking boat trips to view the endangered Irrawaddy dolphins – this outcome may occur irrespective of the DSHPP as the dolphin population is already in decline for other reasons and at last estimate (2012) only six (6) animals were present (See EIA 2013).

- For Veunkham, which relies on trade (mainly fish and households items), reduced fish catch
  and loss of dolphins would potentially mean less economic activity;
- Similar trends might occur for the Ban Hang Khon village economy as it depends on fishing activities and provision of boat services to dolphin watching tourists coming from Hua Khon and Don Det;
- The majority of households of Thakho and Bung Ngam would not directly be impacted by the Project development as most cultivate paddy and are not directly involved with tourism business. But changes in the capture fisheries in the area will affect their income from fish sales and their main source of food protein;
- Increased noise and traffic flow during the construction period could affect households in Thakho and Bung Ngam located along Highway No. 13 South.
- Increased risks of HIV/AIDS and STDs in the general area from influx of construction workers and visitors to the area.
- Increased economic activities in the area could have a negative effect on the residents of Ban Thakho as 'unprepared' villagers' become victims of development and get are 'left behind' by an influx of investors to the area wanting to take advantage of the potential economic development.

There are numerous potential the long term social and economic benefits to the island communities from Project derived improvement in transport infrastructure on the islands to link Sahong and Sadam (2 bridges) and also to connect to the mainland (1 bridge). These positives will be offset in the construction phase by local disturbance (noise dust etc.) from construction and earth moving equipment. The Project also has the potential to bring important Public Health improvements to the directly affected island communities in terms of improved water supply and sanitation.

The local population has recognised these potential opportunities for community advancement and are generally in favour of the Project proceeding (See following).

#### 5 VILLAGERS' PERCEPTIONS OF THE DSHPP

#### 5.1 The 2007 Survey

At the time of the 2007 Household Survey local residents were not fully informed about the DSHPP and its potential effects on their lives. As shown in Table 2, households were aware of critical issues such as:

- Impacts on reducing fish abundance and fishing opportunities,
- Potential loss of household assets due to flooding of Hou Sahong,
- General negative social impacts, including problems relating to prostitution, sexually transmitted diseases, and other social disruptions.

Despite these concerns there seems to be a general understanding of the potential benefits of the project, such as provision of electricity, secure water supply and sanitation facilities, and connection via bridge to the mainland. Due to these and other perceived benefits there was a general willingness for the project to proceed.

The different perceptions at household, group and village level are listed in Table 2. All households expected that they would get access to electricity, which they feel to be important for their livelihoods.

At the time of the 2007 interviews, local villagers did not have any idea if their land and other assets would be flooded, since they did not know the extent of flooding. However, they did have different opinions when asked about resettlement. Most of them did not want to move to other places but preferred to move to non-flooded parts within their villages or islands.

In all cases, appropriate compensation was requested for house reconstruction and clearing suitable land for agriculture production. Compensation in kind or in cash can be accepted on the conditions that it should be equivalent at least to their losses. Their preferences for livelihood restoration were to have suitable land for agriculture with appropriate extension support and necessary public facilities at the new resettlement sites for education, healthcare, market, secure water supply and electricity.

#### 5.2 The 2009 Survey

The update survey conducted in mid-2009<sup>4</sup> revealed that reduced fish abundance and loss of assets due to flooding of Hou Sahong are the main worries of local villagers when being asked about the impacts of DSHPP construction.

Some villagers also worried about negative social impacts e.g. problems relating to prostitution, sexually transmitted diseases, and other social disruption. However, the willingness to have the dam constructed was higher for most people in all villages. Although the survey was conducted at household, group and village levels, all residents expressed their willingness to have the hydropower dam with the expectation that they will be able to get access to electricity, which they feel to be important for their livelihoods. With electricity people feel that, apart from lighting and other home use purposes, they will also be able to use it in different production purposes; it would also bring them hope to have better opportunities for employment as well as will enable them to run more business. They also foresee that, if the project is approved, it would bring additional development, more tourists, and better economic conditions. Household level interview showed that many villagers were afraid the project will not be realized.

<sup>&</sup>lt;sup>4</sup> A detailed report on the 2009 survey results can be found in the SIA 2013, particularly Annex 1.

Table 2 Villagers' Perceptions on Impacts of DSHPP

Perceptions	HH Level	Group Level	Village Level
Negative Impacts			
1. Reduced fish abundance	1	1	1
2. Increased flooding	3	2	2
3. Resettlement problems	1	1	1
4. Degradation of environment	3	2	2
5. Fear of social disruption and sexually transmitted diseases due to increased workers in the project areas	3	3	3
6. Fear that the project would not be implemented	1	4	4
Positive Impacts			
1. Access to electricity for lighting and domestic use	1	1	1
2. Access to electricity for agriculture production	2	1	1
3. Job opportunities	3	2	1
4. Better opportunity for socio-economic development	1	1	1
5. Bring more tourists	3	3	3
6. More business opportunity	3	2	2
Sites for Possible New Resettlem	ent		
1. Khinak, Veunkham and Nakasang	3	1	1
2. Along Highway No. 13 South	3	2	2
3. Resettle on non-flooded parts of the same village and island	1	2	2
4. Up to the government decision	2	2	1
Compensation			
House reconstruction	1	1	1
Land suitable for agriculture	1	1	1
Compensation type			
In cash equivalent to value of affected asset plus cost for reconstruction.	1	1	1
Cost of transportation	1	1	1
In kind (government provide new house and land)	2	1	1

Rating of perceptions of importance 1-High Importance 2-Medium; 3- Low 4-Very Low

#### 6 SOCIAL DEVELOPMENT ACTION PLAN

# 6.1 Background

The majority of residents in the villages likely to be impacted by the Project have sufficient resources and assets to meet their basic needs. They are not rich but feel happy and secure in their own social and environment setting.

The natural resources and the rich biodiversity of the area, including the abundance of fish stocks and other aquatic plants and natural beauty create an environment that sustains human life and promotes life quality and culture. Therefore, any infrastructure or investment projects which aim to generate economic and financial benefit to the local population must also bring additional social benefits and by no means degrade the social and economic livelihood of the villagers.

All residents of the directly impacted villages will be covered by the general policies outlined in the SIA and detailed below. The successful implementation of these policies will provide additional benefits to the area affected by the project.

#### 6.2 Proposed Development Program

While all villages in the vicinity of the Project will be susceptible to impacts from the proposed development, the villages on the islands of Don Sahong and Don Sadam are expected to be most affected. Therefore, these island communities should be the focused for most assistance and mitigation actions.

The activities are grouped into 3 main components:

- 1 Livelihood training and awareness raising
- 2 Construction of infrastructure
- 3 Livelihood development

#### 6.3 Health Promotion Program

#### 6.3.1 Improving Existing Health Infrastructure

The project will provide technical support for the improvement of the existing provincial and district hospital to ensure that this hospital will provide the required service to project affected people, as back up service to the local clinic. The following action will be implemented:

- Social and Environmental Management Unit will collaborate with provincial and district health authorities to improve health facilities in the district;
- Project will provide the technical support to the district hospital in improving personal skill
  and tools to ensure that this hospital can provide the required service to the project, if the
  need arises.

#### 6.3.2 Medical Care Support

The Social and Environment Unit of the project will work closely with GOL Authority to develop policies and programs to limit the threat of STD spread (especially HIV/AIDS), ensuring that prevention and control programs are sensitive to cultural practices and taboos. Support malaria prevention strategies within the area surrounding the project. This will provide benefit in reducing the incidence of malaria within the workforce. Support and assist the Champasak Authority in the

development of medical services and facilities.

Ensuring that alternative water supplies of at least equivalent quality and accessibility are provided and maintained to replace any water sources adversely affected by the project. Support attempts to improve hygiene in the area surrounding the project. This will provide benefit in reducing the incidence of sickness within the workforce. Apply appropriate mitigation strategies to minimize dust and noise impacts on the local community.

Establish and implement a policy whereby all project construction camps are alcohol-free. Provide appropriate driver training and careful planning of haulage routes and times to minimize risks to the local community.

Monitor regularly indicators of health and nutritional status amongst the site workforce and local community to ensure that project impacts (both positive and negative) are identified and appropriate management and mitigation measures are implemented and refined.

# 6.3.3 Emergency Response

The objective of environmental emergency response management is to ensure that it considers environmental and community issues as well as health and safety issues.

The Project Owner will undertake regular (at least three yearly) environmental risk assessments to identify and rank (in terms of severity) potential environmental emergency situations that may arise and result in impacts on environment and community. Management measures will be developed to minimize each specific risk and implemented according to risk ranking (e.g. highest risk areas will be managed first). If an environmental emergency occurs, then emergency response will be prioritized according to the following hierarchy:

- Protection and rescue of human life.
- Minimization of the area impacted by the incident.
- Protection of the environment, plant and property.
- Rendering the area safe in which the emergency has occurred.
- Restoration of all disrupted services.
- Decontamination and rehabilitation of the incident scene and surrounding area.

The following groups will be immediately informed by phone of the environmental emergency:

- Ministry of Natural Resources and Environment (MoNRE)
- Project Owner Head Office.
- District and provincial government.
- Village chiefs.
- Local community.
- Anyone potentially affected by the emergency (e.g. fishermen, farmers).

Depending on the severity of an environmental incident, emergency response may also require notification of the following groups (as outlined in the Emergency Response Manual):

- Site medical practitioners.
- Police.
- Ambulance.

Project Owner will develop environmental emergency response procedures to cover the specific environmental emergencies. The procedures should cover:

Unplanned or uncontrolled discharge of project waters

Major flood event or earthquake (e.g. at limit of, or exceeding, project design capacity).

- Fire within project facilities or in surrounding vegetation.
- Uncontained spill of fuel or other environmentally harmful reagent.
- Security or terrorist threat.

In addition, a general environmental emergency response procedure will be developed to cover unforeseen environmental emergencies

#### 6.3.4 Camp Management

The main objective is to integrate to project security program and secure that all worker not allow going out site of the camp after working hours. The contractor must appropriately manage and control their worker to secure the community safety and health, social causes.

The project owner or his contractor shall appropriately manage as follows:

- any worker camp must be appropriately fenced,
- Setting up regulation and rule to be followed by the worker,
- Setting up canteen for the workers with appropriate prices and responsible alcohol consumption policies.

#### 6.3.5 Community Safety Due to Rock Blasting

The main objective is to minimize the impact on local communities due to rock blasting, explosion, crushing and other operation that may have impact on the local people in surrounding villages and keep them informed on regular basic of the company's activity and warning to them before commencement of the work.

#### The Management measure:

The potential safety include: (i) noise due to rock operation, (ii) dust due to transportation and explosion or crashing, (iii) vibration due to rock blasting.

A key aspect of this management responsibility is controlling the access of local communities and livestock to hazardous areas. Control measures shall include various levels of fencing and signage supported by community training and education programs

- consult with local communities and authorities to develop appropriate control measures for community safety;
- Conduct ongoing awareness and capacity building programs to ensure local communities are adequately informed and empowered on issues of safety
- Provide the adequate warning system to local people before commencement the rock blasting and
- Design the appropriate time to be taken for rock blasting.

# 6.3.6 Community Safety Due to Road Traffic

The main objective is to integrate sound environmental management into all project construction and operations activities and keep the community informed on a regular basis of the company's activities and consult with the community in relation to the company's operations.

#### Management measures

Potential safety hazards include: (i) Traffic accidents. (ii) Access to the headrace canal, power station and the construction area. A key aspect of this management responsibility is controlling the access of local communities and livestock to hazardous areas. Control measures shall include various levels of fencing and signage supported by community training and education programs.

Project owner's approach to environmental and social safety will be to:

- Identify the environmental and social safety risks of all project activities;
- consult with local communities and authorities to develop appropriate control measures for community safety; and
- Conduct ongoing awareness and capacity building programs to ensure local communities are adequately informed and empowered on issues of safety.

All employees and contractors working for the Don Sahong Hydropower Project will be instructed to comply with the speed limits and all road rules generally as part of the safety plan for the project. Disciplinary measures or fines will be imposed on all employees and contractors who break the road rules.

Traffic signs shall be installed by Project owner in coordination with local district as follows:

- Signs indicating speed limits will be installed at regular intervals along the roads.
- Signs indicating sharp bends.
- Signs indicating that the vehicle is approaching a one lane bridge.
- Signs indicating that the vehicle is approaching a school area.
- Signs indicating that there is a construction site ahead.

Where public vehicles are observed to be driving dangerously and breaking road rules, they will be reported to the District Police Authority for further action.

Project owner will conduct driver-training programs to maintain good driving skills and practices for all project employees.

Project owner will develop and implement a community road safety education program. The education program will contain information on:

- Hazards from vehicles and trucks in villages.
- Safe driving practices for vehicles and tractors.
- Safe use of bicycles on the road.
- Walking on the road.
- Supervision of children in villages.
- Livestock management.
- Road signs.
- Road rules.
- Night time use of the road.

The need for additional safety measures associated with the canals will be assessed, in consultation with the community, during the Canal Safety Investigation

#### 6.3.7 Education Promotion Program

The Project will support local education by encouraging local children and youths to continue to higher levels of education. This could be by development of the local school which would benefit the wider community by bringing together newcomers and hosts as parents with a common stake in the

operation of their local school. It may also be by provision of scholarships or services to assist more local children to progress to the secondary or tertiary education levels.

The education plan includes support for the improvement of schools in the project area; the children will enjoy attending a school of permanent construction, conducive to learning. Plans include better public health (safe water and latrines), more facilities to attract teachers (e.g. housing), and sports and play areas.

#### Ensuring sufficient teaching staff.

While the responsibility for assigning teachers rests with the district government, the Project will work closely together with the district on the issue. Upgrading the existing schools will also have accommodation for teachers assigned from elsewhere in the district and the SMMP budget includes stipends for teachers to help ensure that education is provided with minimal interruption during the relocation process. The Project will also help ensure there are local teachers in the long-term by supporting local young people to attend teacher training college and become qualified teachers for their communities.

Action plan to be taken before construction and during project activities by project Social and Environmental Management Unit in conjunction with local authority as followings:

- Design new school building with sufficient equipment including tables, chairs, educational materials
- Consultation with local authority, especially, district and village level for appropriate design and plan for updating or build new school to avoid any conflict of interest
- Improving education system in the project area including upstream and downstream village by providing the necessary support to primary and secondary schools.

The project will provide an annual fund for supporting the educational material of each school room in project communities to cover school books, teaching aids, and basic stationary. School generally have little budget for these essential inputs and during the transition period, it may be difficult for families to donate needed supplies to their schools. Better equipped classrooms also help stimulate children's interest in learning and are important to maintain high attendance level.

# 6.3.8 Agriculture Promotion Program

Agricultural support will be provided to assist with the improvement of the existing agriculture of the villages in the project area, if they may be affected by the construction and operation of the project. Tools will be provided and technical assistance or advice given to farmers in dealing with agriculture and rural development as well as training in agricultural production. Such a regional program could also be adapted to benefit farmers in the villages, such as by conducting classes or training sessions in the villages or by selecting villagers to set up demonstration farms.

# 6.3.9 Public Awareness Program

The GoL policy on sustainable hydropower calls for "comprehensive environmental education and awareness activities" as part of the community consultation process. Environmental education needs to reach both men and women, particularly younger people. The knowledge imparted will complement livelihood restoration and improvement activities, which have been designed to not degrade the surrounding environment (halting swidden practices, over-harvesting of NTFPs, etc.). Environmental education will complement new livelihoods while raising communities' awareness of the need to protect their natural resources for the future.

Training will be conducted through the Village Facilitator system, with the technical assistance from NGOs or other agencies that have conducted similar education programs elsewhere in the Lao

PDR. Existing curriculum can be reviewed, adapted to the Muang Feung context and training of trainer provided to enable Village Facilitators to share the curriculum with their community.

A Community Consultation and Awareness Program will be developed to provide a basis for ongoing community consultation. An important focus of the liaison program will be raising awareness amongst the community of hazards introduced into the area as a result of the project (e.g. dangers associated with diversion canal access, increased traffic hazard) and potential, project-related disruptions to the community (such as reduced flows downstream of the head ponds). The program will also communicate to the local community about possible opportunities such as employment and recruitment procedures, business opportunities, and Community Trust Fund program initiatives. The program will provide a forum for the community and (and government where relevant) to raise, discuss and resolve issues associated with the project.

Consultation will occur both formally (e.g. meetings, presentations and workshops) and informally (e.g. visits to the local villages). SEMU staff will consult the community before making any significant decisions relating to: changes to landform or drainage. Records will be kept of all consultation. Agreements will be written up and signed by relevant parties. For a comprehensive overview of all community consultation to date and proposed ongoing consultation mechanisms, please see the separate report, Public Disclosure and Consultation Plan

#### Women's Needs

Most programs outlined in the SMMP are designed to benefit women equally (or more than) men, directly and indirectly. By ensuring equitable participation in all training programs, women in affected communities will gain greater access to knowledge and skills. Improved schools and Education Centre will mean a reduction in women's childcare burden. Literacy classes will be open to women. Savings and credit groups are often considered a feminine activity in rural Lao. Training and salary for education center for caregivers will accrue to women of the community.

Regardless, of the benefits women will enjoy from equitable participation in all SMMP programming, however, gender bias in local leadership and decision making will remain a significant barrier to women's advancement. The creation of a gender-balanced pool of trained village (development) facilitators (see RAP strategy: Supported Self-Management) will be a significant step for improving women's participation in community leadership. In order to ensure lasting gains in women's local representation, the SMMP also includes a women's leadership program for women from affected communities active in community development and/or administration (WU representative, interest group members)

The project will set up a public awareness program to disclose project information to local people and interested stakeholders who may have an interest in the project, the following implementation procedure shall be taken into account:

- The project will set up the public information center at the project sit office and district office to disclose information to affected person, local people and other stakeholders;
- The project will set up public information boards in surrounding villages during the project implementation.
- The project' environmental and social Management Unit will closely coordinate and work with district working committee to design and publish the information to affected person and other stakeholders

#### 6.3.10 Livelihood Training and Awareness Raising

This component consists of various trainings and capacity building including the following:

Gender training

- 2. HIV/AIDS and STD awareness campaign
- 3. Vocational (agriculture, livestock) training
- 4. Non-formal education for women and youth
- 5. Primary health education
- 6. Primary and secondary teachers' training
- 7. Provision of scholarships for best students for tertiary education or high level technical education
- 8. Entrepreneurship and SME promotion training
- 9. Other professional skills training

This component involves villagers in all five affected villages.

#### 6.3.11 Construction of infrastructure

The project will deliver improved road infrastructure to the area in general including two bridges over Hou Sahong and one bridge connecting Don Sadam to the mainland. Specific improvements in community infrastructure will be made to assist the community development of all (3) villages on Don Sahong (3 hamlets) and two (2) villages on Don Sadam (Ban Hua Sadam and Ban Hang Sadam).

This village infrastructure improvement will include:

- Electrification of the resettlement village:
- Construction of one (1) new secondary school;
- Construction of one (1) new health center;
- Irrigations systems to be developed in Hua Sahong, Hua Sadam and Hang Sadam;
- One community market to be built in Hang Sadam; and
- Refurbishment of the temple.

# 6.3.12 Livelihood Development

This component is to assess the viability of sustainable alternative activities (e.g. cash crops) to substitute for loss of cash income from fishing. These efforts should focus on the natural advantages of the region (e.g. (fishing / fish processing and agriculture). The following are just some of the potential opportunities that will be investigated in collaboration with the village people:

- a) Development of alternative agricultural cash crops grown by rainfed or gravity irrigation (e.g. vegetables, fruit trees (and rice))
- b) Development of plantation timber or bamboo for fuel wood, fodder and other uses
- c) Improved processing and marketing of existing processed fish products
- d) Opportunities for marketing fish and agricultural products as fresh (refrigerated)
- e) Establishment of village development and revolving micro-credit funds

These activities will principally focus on Hua Sahong, Hua Sadam and Hang Sadam although the last activity should involve all **five target villages**.

#### 6.3.13 Employment and commercial opportunities

In addition, the DSHPP commits to make as a priority during the operational phase:

- a) hiring of local people; and
- b) purchasing food and agriculture products from the project area.

#### 7 INSTITUTIONAL ARRANGEMENTS

The following committees will be the key agencies in the implementation and arrangement for DSHPP's environmental and social development program.

# 7.1 Provincial Environmental and Social Committee (PESC)

The main aim for setting up PESC is to have provincial high-level authorities to supervise the implementation of the project construction, EMP, RAP and SMMP, in particular, solving the DSHPP policy issues. The following organization structure of PESC is recommended:

#### Chairman:

• Champasak Provincial Governor

#### Membership:

- Office of Champasak Provincial Governor
- Muang Khong District Governor
- Provincial Lao Women's Union
- Provincial Energy and Mines Office
- Provincial Water Resource and Environment Administration
- Representative of Champasak University
- Representative of DSHPP
- Other related provincial/public organizations as appropriate

# 7.2 District Compensation and Resettlement Committee (DCRC)

The District Compensation and Resettlement Committee (DCRC) will have the following functions:

- Consultation and communities' involvement programs;
- Detailed inventory of affected assets;
- Finalization of compensation entitlements and prices to be paid;
- Survey and detailed design of resettlement;
- Construction of resettlement housing, infrastructures and facilities;
- Relocation of affected persons to new land;
- Rehabilitation of resettlers and support for livelihood programs;
- Grievance redress issues; and
- RAP and SMMP monitoring & evaluation.

The DCRC structure may consist of:

#### Chairman:

Muang Khong District Governor

# Membership:

- Office of Champasak Provincial Governor
- Muang Khong District Governor
- District Lao Women's Union
- Related Mouan Khong District Departments
- Provincial Energy and Mines Office
- Head of Don Sahong Village
- Head of Hang Sadam Village
- Head of Hua Sadam Village
- Head of Thakho Village
- Project Supervision Consultants
- Representative of DSHPP

# 7.3 Village Consultative & Grievance Redress Committees (VCGR)

The villager involvement in project implementation is important for two-way communications. The village VCGRs will be organized at Don Sahong and Don Sadam with the following organizational structure:

#### Chairman:

Village Head

#### Membership:

- Representatives of Village Elderly
- Village Lao's Women Union
- Lao's Front for National Construction
- Representatives of Fishermen
- Representative of Village Administrations
- Representatives of DSHPP

# 7.4 Project Environnemental & Social Management Unit (PESMU)

The DSHPP shall set up Project Environmental and Social Management Unit (PESMU) as key organization to assist and facilitate the works of PESC, DCRC, and the five VCGRs. Another main responsibility is to manage and follow up all works relating to the Environmental Management and Monitoring Plan, Resettlement Action Plan and Social Management and Monitoring Plan. The PESMU will be staffed and equipped with the following resources:

- Qualified PESMU Manager having relevant experience in field of environment and social aspects of hydropower projects;
- Qualified monitoring consultants hired by DSHPP;
- Qualified GOL's specialist/representative from Provincial DOE or WREA and or District Planning Department;
- Efficient support staff;
- Sufficient compensation and resettlement funding from project owner;
- Adequate office space, equipment and supporting facilities such as boats and motorcycles, at or near the project site.

#### 8 CONSULTATION AND GRIEVANCE REDRESS

#### 8.1 Consultation and Involvement of Villagers

This SMMP is based on the 2007 and 2009 baseline surveys conducted in the five villages in addition to three pre-project consultation and stakeholder's meetings at Pakse, Muang Khong and Hang Sadam Village where information about the project including resettlement was made available and disclosed to concerned parties.

More information disclosure and specific consultation meetings need to be organized with the relevant households and village administration in each village after official approval of DSHPP. This will be the initial responsibility of the DCRC and VCGR. It is anticipated that at least one more formal workshop meeting will be held at the provincial and district level, and that additional informal meetings will be held in each of the affected villages to discuss the environmental and social documents and obtain the concurrence of the affected parties.

#### 8.2 Grievance Redress

The Village Consultative & Grievance Redress Committees will be set up in each village including Don Sahong, Hang Sadam, Hua Sadam, Bung Ngam and Hang Khon. These committees will be the focal point for receiving comments and feedbacks to DCRC and DSHPP's Manager.

If there is any dissatisfaction about the DSHPP project compensation and resettlement performances, the aggrieved or affected persons can complain to and officially notify the VCGR through these committees.

The grievance/dispute processing mechanism is based on a three-tier system.

- First Instance: Customary ruling under the auspices of Neo Hom Ban, if not successful
- Second Instance: Amicable settlement outside the scope of the customary law under the auspices of VRC and EMO in the presence of legal counsel, if not successful
- Third Instance: Court of Law of Lao PDR

#### a) First instance process: Within a village

In such compensation operations, many grievances take root in misunderstandings, or result from conflicts between neighbors, which usually can be solved through adequate mediation using customary rules. Most of grievances can be settled with additional explanation and limited mediation. A first instance mechanism is aimed at the amicable settlement of disputes. When an aggrieved person presents a grievance or dispute to the Legal Counsel, the legal advisor will seek settlement using first the customary mechanisms available in the community. These mechanisms use customary rules well known to all and considered binding by all. Community leaders typically and rightfully play an important role in achieving settlements acceptable to all parties. Normally disputes are solved at the village level. With moderators ensuring that disputes stay within the village. A body known as Neo Hom Ban is responsible for resolving disputes at village level.

#### b) Second instance: VRC and SEMU

When a settlement cannot be reached at the First Instance level, the second instance mechanism is triggered: Amicable settlement under the auspices of Legal Counsel/Witness GOL and the SEO.

# c) Third instance process: Appeal to court

According to the Lao Constitution, every individual has the right to access a court of law to lodge complaints and petitions as expressed in Article 28 below:

"Article 28. Lao citizens have the right to lodge complaints and petitions and to propose ideas to relevant stale organizations in connections with issues pertaining to the rights and interests of collectives or of their individuals.

Complaints, petitions and ideas of citizens must be considered for solutions as prescribed by law". Appeal to the Court will therefore be through the normal jurisdiction. Given the mechanisms described above, it is not expected that many disputes will reach this level.

#### 8.3 Disclosure Information

In accordance with Lao PDR government Safeguard Policies, disclosure of information to project stakeholders and the general public is necessary. This implies that reliable and up-to-date information on the project as it develops should be made available by the DSHPP through various media. The main aspects include:

- Use of Lao TV and radio to reach the general public and updates about progress on the project and public meeting announcements;
- Information bulletins to national and international newspapers; and
- information to visiting journalists or international NGOs, with information centers where reports are available.

Translation into Lao language is required for all major summary reports of the final SIA and SMMP. This is to facilitate GOL involvement and understanding where necessary.

#### 9 SMMP IMPLEMENTATION MONITORING and EVALUATION

# 9.1 Monitoring requirement

Good practice in SMMP requires continuously incorporating the learning that takes place in programs using a variety of implementation strategies and institutional models, allowing the 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 Monitoring and Evaluation Plan. Participatory monitoring by affected people will be essential to accurate monitoring of the SMMP as individuals own personal assessment of their community's health is the issue to be assessed. Qualitative monitoring should help to capture the following questions at minimum:

- Have any PAPs used the grievance redress procedures and what were the outcomes?
- Have any intra-community conflicts been reported? How were they resolved?
- Were special measures for ethnic minority peoples implemented?
- What changes have taken place in key social and cultural parameters relating to living standards?
- What changes have occurred for vulnerable groups?
- Are PAPs able to access schools, health services, cultural sites and activities?
- What is the extent and quality of participation in community groups?

# 9.2 Monitoring indicators

The planning and implementation activities for EMP and SDP will be monitored to ensure that the process is carried out fairly and in accordance with the provisions of the plan. Two separate kinds of monitoring are envisioned:

- Monitoring of physical progress including reaching key benchmarks (acquisition of land, payment of compensation, construction measures;
- Monitoring of non-physical performance goal/outcome attainment on incomes, health, education, social issues and capacity building.

Monitoring of physical progress will be carried out by the Project's staff under the direction of the Community Development Facilitator, as well as by the VRC. Regular feedback on the SDP process and progress will be provided to the affected residents through formal or informal meetings and discussions. The reporting schedule will be monthly, however, more or less frequent progress updates may be warranted depending on the level of activity and as the relocation date nears.

An independent third party monitoring shall be appointed by the project, will monitor non-physical performance. The third party will perform periodic reviews of the socio-economic status of the affected households, and will solicit feedback and comments from these households regarding the implementing process. A matrix of socio-economic indicators, mainly based on village wide statistics, will be collected as part of the monitoring; however, monitoring of individual households and comparison of their conditions to pre-relocation status will also be carried out. The consultants will provide a report to the Project management presenting their findings including any identified problems, community views and any recommended measures or improvements that could be made.

The monitoring schedule will initially be set as twice a year and will continue for a minimum three years following physical relocation to the new village. The monitoring period will be extended if necessary until equivalency to pre-relocation conditions can be demonstrated. Specific measurement tools for determining equivalency will be set as part of the monitoring indicators. The

methodology used to evaluate equivalency must incorporate a degree of flexibility or be able to adapt to unforeseen or unanticipated events, which are beyond the control of the Developer and which have negative impacts on the populations affected by resettlement. Such events could include drought, floods (or other acts of nature), or sickness.

The monitoring agency must be able to recognize such circumstances, evaluate their effect on resettlement recovery process and develop alternative indicators for determining equivalency if necessary. Indicators based on the relation between the local circumstances and regional or national trends, such as farm plot sizes, production levels, Gross Domestic Product, household and personal incomes, purchasing power, should be considered by the monitoring consultants.

In preparation of this report, the consultant has set up a database of all interviewed PAPs and people in watershed area based on the socio-economic survey. The database will be expanded once the detailed socio-economic survey is carried out at the next stage. The sample survey addressed aspects of living standards of the PAPs through questions on monetary incomes. This makes up a set of indicators that should be defined in agricultural and non-agricultural sources. Additionally, questions on household assets e.g. radio, tractors and other equipment, plus food security and household expenditures were covered during the survey. The quantitative indicators emanating from questions on monetary incomes and welfare indicators should allow for crosschecking of data about living standards.

Monitoring indicators largely come from baseline data defining a measurable characteristic of activities to be monitored. Monitoring then aims at defining its state at the particular time of its observation, and to compare it with a previously defined standard. In this resettlement project, social and economic characteristics form the great majority of indicators.

#### 9.3 DSHPP Indicators

These indicators will include the following topics: agriculture; food production and marketing; crop production; livestock per household; incidence of animal disease/type; farmers' groups; involvement of women, etc.

Education: the following will be monitored: primary school enrolment levels by gender;; pupil/teacher ratio; distance to primary school. secondary (and possibly tertiary) enrolment levels by gender.

Health: availability of and distance to safe drinking water and sanitation; incidence of main diseases/gender/age; death rates of main diseases/gender/age; trained health staff; percentage of catchment population; distance to health center; child nutrition such as height for age (stunting), weight for age (wasting); possibly incidence of HIV/AIDS and other STDs by gender and age. Household economy including: housing, quality of roof, walls, floor, road to next village, tracks, dust/motor road.

Other important indicators that will be monitored are: income per household; indebtedness; livelihood skill (i.e. capacity building, skills/vocational training, community infrastructure and improvement in production/income for women/youths).

#### 9.4 Implementation Schedule

Internal and external monitoring systems should be set up to provide feedback on implementation and also to identify problems and success of the project. To ensure that compensation, relocation and rehabilitation will be carried out in good order and with efficient performance by the concerned organizations. This will include monitoring and supervision, as follows:

Type of Monitoring	Supervision	Monitoring
Internal	PESC	DCRC/PESMU
External	DCRC	Consultants

One year after finishing implementation of the SMMP, a specific evaluation will be conducted by an independent third party (e.g. Champasak University) to determine the effectiveness of the DSHPP in achieving the objectives of the SMMP and the RAP.

A general schedule for implementation is shown in Figure 2.

Figure 2 SMMP Implementation Schedule

TASKS	1st Year					2	2nd \	/ear					
Years/Months	1-3	3		4-6		7-9	10-12				13-	24	
Set-Up Committees & organizations.													
Consultation & participation programs													
Set-Up internal/external monitoring													
Detailed site survey													
Update compensation rates/entitlement													
Organization of trainings													
Land use planning													
Development of construction sites													
Livelihood development & rehabilitation													
Monitoring & evaluation													

The schedule below gives an initial idea of the timetable for relevant project development milestones that will have major social impacts. This is the DSHPP driver for implementing the SMMP activities to meet specific milestones. The schedule is based on the latest information from the Engineering Status report but the dates are subject to change as the project develops.

Table 3 DSHPP and SMMP implementation schedule

February 2013	Social committees established
February 2013	Final social baseline monitoring commences
August 2013	Construction starts on preparatory works
September 2013	Cofferdam construction begins, affected lands alienated and residents excluded from DSHPP project area
June 2015	Road / Bridge works complete - road access to mainland
November 2017	Powerhouse sealed, Mekong diversion into Hou Sahong

#### 9.5 Committees

The following Committees & Organizations will be set up in the first three months from the start of the project:

- Provincial Environmental and Social Committee (PESC)
- District Compensation and Resettlement Committee (DCRC)
- Village Consultative & Grievance Redress Committees (VCGR)
- Project Environmental and Social Management Unit (PESMU)
- Internal & external monitoring team & system for compensation and resettlement

The PESMU is very important as it controls the mechanism for successful compensation and resettlement implementation that needs to be carefully organized as already discussed above.

# 10 BUDGET to implement the SMMP

# 10.1 Social Management Budget

The budget for the social management and monitoring activities is listed in Table 4. Total costs for the construction period (including pre-construction, and construction years one to three are calculated to be approximately US\$1.6 million<sup>5</sup>, including compensation for temporary and permanent use of fish traps, new infrastructure, and livelihood and income restoration. Additional detail for each of the line items is found in Attachment A through D.

As can be seen in the table, the costs will be greater in the first two years of construction as the infrastructure is developed. Later years reflect livelihood development costs and monitoring.

The costs indicated in the table are preliminary and indicative of the budget required for the SMMP. Note that the SMMP budget does not include the costs for Resettlement. These are presented separately in the associated RAP 2013 report.

<sup>&</sup>lt;sup>5</sup> Based on 2007 prices

Table 4 Budget for Social Management and Monitoring Plan

			Construction Year totals by activity in US\$1,000					
No.		Activity	1	2	3	4	Total	
1		Livelihood training costs						
	a.	Gender training	3.0	3.0			6.0	
	b.	HIV/AIDS, STD awareness campaign	3.0	3.0			6.0	
	c.	Vocational (agric., livestock) training	6.0	6.0			12.0	
		Non-formal education for						
		women/youth	3.0	3.0			6.0	
		Primary health education	3.0	3.0			6.0	
	f.	Teachers' training	3.0	3.0			6.0	
		Scholarships for best students for						
		tertiary education or high level						
	_	technical education	2.0	2.0	1.0	1.0	6.0	
		Entrepreneurship and SME training	3.0	3.0			6.0	
	i.	Other professional skills training	6.0	6.0			12.0	
						subtotal:	66.0	
2		Social infrastructure costs	4440	1110			220.0	
		Electrification of villages	114.0	114.0			228.0	
		Secondary schools	55.0	55.0			110.0	
		Health centers	5.0	5.0			10.0	
	d.	Water supply	90.0	100.0	100.0		90.0	
	f.	Irrigation systems	200.0	100.0	100.0		400.0	
		Construction of community market	8.0	2.0	2.0	2.0	8.0	
	g.	Other Programs	2.0	2.0	2.0	2.0 subtotal:	8.0 <b>854.0</b>	
3		Livelihood development costs				subtotai.	854.0	
<u> </u>	а	Land use plan/land zonation, titling	15.0				15.0	
		Promotion of second rice crop	12.5	12.5	12.5	12.5	50.0	
		Promotion of vegetable plantation	9.0	9.0	6.0	6.0	30.0	
		Promotion of fruit trees plantation	9.0	9.0	6.0	6.0	30.0	
	<u></u>	Plantation of fast growing trees for	5.0	5.0	0.0	5.5		
	e.	fuel wood	9.0	9.0	6.0	6.0	30.0	
		Village development fund / micro-						
	f.	credit	9.0	9.0	6.0	6.0	30.0	
	g.	Sanitation equipment (latrines)	23.0	23.0			46.0	
						subtotal:	231.0	
4		Consultation and Monitoring Costs						
	lı	nformation disclosure & Consultation	16.0	2.0	1.0	1.0	20.0	
		Implementation and monitoring	15.0	25.0	20.0	10.0	70.0	
		External Monitoring Agency	13.5	13.5	13.5	13.5	54.0	
						subtotal:	144.0	
5		Administration and Contingencies						
	A	dministrative/Operational Costs (10%)	31.0	31.0	31.0	31.0	124.1	
		Contingencies (10%)	34.1	34.1	34.1	34.1	136.5	
						subtotal:	260.6	
Т	ota	ıl	702.2	485.2	239.2	129.2	1,555.6	

# **ATTACHMENT - A**

# INFORMATION DISCLOSURE & CONSULTATION AND MONITORING AND EVALUATION COSTS ESTIMATES

**TABLE A-1 INFORMATION DISCLOSURE & CONSULTATION** 

Description	Unit	Rate (USD)	Amount (USD)
1. Consultation expert	1 month	7,000	7,000
2. Consultation assistant 1	1 month	2,000	2,000
3. Consultation assistant 2	2 months	1,500	3,000
4. Transportation	Lump sum	5,000	5,000
5. Consultation materials	Lump sum	2,000	2,000
6. Meeting & meals	Lump sum	1,000	1,000
Total			20,000

# TABLE A-2 IMPLEMENTATION OF SMMP MONITORING & EVALUATION

Description	Unit	Rate (USD)	Amount (USD)
1. Monitoring/evaluation expert	4 months	10,000	40,000
2. Supporting staffs	8 months	2,000	16,000
3. Transportation	Lump sum	12,000	12,000
4. Reports	Lump sum	2,000	2,000
Total			70,000

# **ATTACHMENT-B**

#### LIVELIHOOD TRAINING COSTS ESTIMATES

- A. Gender training
- B. HIV/AIDS and STD awareness training
- C. Primary health education
- D. Non-formal education for women and youth
- E. Vocational agriculture training
- F. Vocational livestock training
- G. Provision of scholarships for best students for tertiary education
- H. Entrepreneurship and SME training
- I. Other professional training

Description	Unit	Rate (USD)	Amount (USD)
1- Gender training	6 villages	1,000	6,000
2- HIV/AIDS and STD awareness training	6 villages	1,000	6,000
3- Non-formal education for women and youth	6 villages	2,000	12,000
4- Primary health education	6 villages	1,000	6,000
5- Vocational agriculture training	6 villages	1,000	6,000
6- Vocational livestock training	6 villages	1,000	6,000
7- Scholarships for best students	6 villages	1,000	6,000
8- Entrepreneurship and SME training	6 villages	1,000	6,000
9- Other professional training	6 villages	2,000	12,000
Total			66,000

# **ATTACHMENT-C**

# **SOCIAL INFRASTRUCTURE COST ESTIMATES**

- A. Electrification of villages
- B. Secondary schoolsC. Health centers
- D. Water supply
- E. Irrigation systems
- F. Community market

Description	Unit	Rate (USD)	Amount (USD)
1- Electricity supply	228 HH	1,000	228,000
2- Secondary school	2	55,000	110,000
3- Health center	2	5,000	10,000
4-Water supply system	6 villages	15,000	90,000
5- Irrigation systems	200 ha	2,000	400,000
6- Market	1	8,000	8,000
7- Other programs	4	2,000	8,000
Total			854,000

# **ATTACHMENT- D**

# LIVELIHOOD DEVELOPMENT COST ESTIMATES

- A. Land use planning / land zoning and titling
- B. Promotion of second rice crop plantation
- C. Promotion of vegetable plantation
- D. Promotion of fruit trees plantation
- E. Plantation of fast growing trees for fuel wood
- F. Plantation of bamboo
- G. Establishment of village development fund / micro-credit
- H. Sanitation scheme (latrines)

Description	Unit	Rate (USD)	Amount (USD)
1- Land use planning / titling	3 villages	5,000	15,000
2- Promotion of second rice crops	100 ha	500	50,000
3- Promotion of vegetable plantation	3 villages	10,000	30,000
4- Promotion of fruit trees plantation	3 villages	10,000	30,000
5- Plantation of fast growing trees	3 villages	10,000	30,000
6- Village development fund / micro-credit	3 villages	10,000	30,000
7- Sanitation schemes	230 HH	200	46,000
Total			231,000