

# **Social Development Plan**

**for**

# **Nam Ngiep 1 Hydropower Project**

Updated Version, June 2014



**NAM NGIEP 1**  
**POWER COMPANY**

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## Executive Summary

### *(i) Introduction*

1. **Overall situation.** The Nam Ngiep 1 Hydropower Project will be located along the Nam Ngiep River in Xaysomboun and Bolikhamxay Province of Lao PDR, downstream of Nam Ngiep 2 Hydropower Project. The Project is set 41 km north of Pakxan, the capital of Bolikhamxay Province, which is located 145 km north-east of the national capital, Vientiane.
2. **Schedule of construction.** Main construction activities of NNP1 are scheduled to start in August 2014. The NNP1 reservoir is planned to be filled during the rainy season of 2018. Electricity will be generated from Commercial Operation Date (COD) in January 2019 onwards during a concession period of 27 years.
3. **Project history.** A project possibility of what would become NNP1 was identified in the early 1990s and a preliminary Feasibility Study (FS) was conducted by the French company Sogelerg Sogreah in 1991. At the request of the Government of Lao (GoL), Japan International Cooperation Agency (JICA) through Nippon Koei conducted a new FS of the Project in two phases, 1998-2000 and 2001-2002. KANSAI and Nippon Koei signed the Project Development Agreement (PDA) on 27th April 2006 for the further development of the Project and Electricity Generating Authority of Thailand (“EGAT”) joined the Project a year later. However, the Project has been delayed due to the global economic situation in 2008 and in 2011, new financial and technical plans were conducted as well as new social documents prepared, which have been revised from 2013-2014 to comply with national and international social safeguards standards.
4. **The Company.** In 2013, the Nam Ngiep 1 Power Company Limited has been founded. Shareholders are now KANSAI (45%), EGAT international (30%), and Lao Holding State Enterprise (25%). On 27<sup>th</sup> August 2013 a Power Purchase Agreement with EGAT has been signed by the Nam Ngiep 1 Power Company Limited and at the same day the Concession Agreement has been signed with GoL in the Ministry of Planning and Investment.
5. **Legal Framework.** The Lao legislation, policies, and regulations regarding social requirements for hydropower development have been put in place during the last 10 years and provide the framework for the development, construction and operation of the Project. Furthermore, the Project complies, as noted in the Concession Agreement, with international standards, including the ADB Safeguard Policy Statement 2009. The Project will thereby always follow the stricter standard.
6. **The Social Development (SDP).** The Social Development Plan (SDP) covers those social, economic, labour and cultural mitigation issues that are not covered in the Resettlement and Ethnic Development Plan (REDP). The SDP elaborates on the issues of public health, labour management, and community development, the latter consisting of issues relating to gender, youth and children, and cultural awareness. As such, the SDP outlines an organized program to fulfil the purpose of mitigation and development of the project affected persons

(PAPs) who are living in the project impact zone. The principle of the SDP is mitigate negative project impacts and enhance positive project impacts so to improve the livelihood of directly and indirectly affected people complementary to measures outlined in the REDP. Thereby, the scope of the SDP covers a population larger than those immediately affected by land acquisition and resettlement.

7. **Public Consultations.** This SDP is thereby the outcome of a process lasting several years. This allowed a constant interaction with concerned stakeholders over a long period. Information on the Project was disseminated through public consultation with PAPs and others in the study area and vice versa information has been gathered as the base for the assessments and plans outlined in the SDP. Public Consultations will continue to be a core methodology to enhance development ownership of all involved stakeholders. Details can be found in the Social Impact Assessment.

## ***(ii) Description of the Project***

8. **Design and Location Alternatives.** The present dam site and power station location were confirmed in the original JICA Feasibility Study (1998-2002) on the basis of technical, financial, and economic considerations for electricity generation and subsequent export to Thailand. Subsequent detailed design ensured that basic safety standards for high hazard dams were applied to guarantee that no uncontrolled release of water will take place by: (i) enabling the passage of the maximum probable flood, and (ii) ensuring that the structure can withstand loads applied for the maximum credible earthquake.
9. **Dam and Reservoir.** NNP1 will build a 148 m high dam located in the Nam Ngiep River close to Hat Gniun village. The NNP1 catchment is 3,700 km<sup>2</sup> at the dam site. NNP1 reservoir will be narrow, long and deep. The reservoir effective storage capacity is 1,192 million m<sup>3</sup> at Full Supply Level (FSL, 320 MSL). At this level the total surface area of the reservoir will be 66.9 km<sup>2</sup>. The Minimum Operation Level will be at 296 MSL.
10. **Waterways.** Water will be spilled through 4 gates at the main dam, where electricity will be produced via turbines and then discharged into the re-regulation pond. To avoid fluctuations throughout the day downstream, a re-regulation dam will be built, through which a regulated discharge will take place. The re-regulation dam is 20.6m height and creates a re-regulation pond with a surface of 1,27 km<sup>2</sup> and an effective storage capacity of 4.6 million m<sup>3</sup> at Full Supply Level at 185.9m MSL. Above the Minimum Operating Level of 174 MSL, water will be used to generate electricity for local consumption.
11. **Power Stations.** A semi-underground power station will be sited on the left bank of the Nam Ngiep River downstream of the dam. The power station will allow electricity production with a rated output of 272.8 MW at the substation. The average annual energy production is estimated to be 1,515 GWh. The smaller powerhouse downstream of the re-regulation dam will allow electricity production with a rated output of 17.6 MW at the substation. The average annual energy production is estimated to be 105 GWh.
12. **Transmission Line.** The 230 kV transmission line, 125 km long, will connect the switchyard

at the power station to the Nabong substation. For a large part the NNP1 transmission line will run in parallel with the NNP2 transmission line. At Nabong substation the NNP1 transmission line will link with several other transmission lines to a joint transmission line for power transmission to recipients in Thailand.

13. **Construction.** NNP1PC intends to award 4 main construction contracts. 2,000 to 3,000 workers will be engaged in construction work over a 5 year period. They will be based at three main camps downstream of the main dam on the left-hand river bank: the owner's camp, the main contractor's camp and the subcontractor's camp.
14. **Operation.** The Commercial Operation Date is presently planned in January 2019. The power station will operate on a daily basis in an intermittent mode. The exact production mode will depend on the actual availability of water in NNP1 reservoir and dispatches by EGAT.

### ***(iii) Social Background***

15. **Environment.** For an environmental background, please refer to the Environmental Impact Assessment and connected environmental mitigation measures plans.
16. **Agriculture.** Rice is the most common crop. Other crops include maize, cassava, and chilly. Most of the agriculture crops are for household consumption, and the surplus is sold to nearby markets or to merchants coming into the villages. This varies between the different villages. Above all the villages in the lower reservoir area lack easy access to markets, reducing market-related income possibilities. Rice sufficiency is thereby not for all household possible, again with a higher incidence of rice insufficiency in the villages to be resettled.
17. **Livestock and Poultry.** Animal raising is common and in the Hmong communities additionally a status symbol. Nonetheless, numbers of large livestock vary strongly not just between villages, but above all between households.
18. **Forest Utilization.** Households rely on collection of Non Timber Forest Products (NTFPs) for daily food, household utilization, and for cash income. However, over-usage throughout the past years has reduced the income possibilities.
19. **Fisheries.** None of the households in the project area fish as the primary activity for household income, however all households mention fish as an addition to their diet. Some households, above all in the upper reservoir area, are going on fishing trips and sell their catch to local restaurants.
20. **Income.** The total annual income (cash and imputed) varies strongly between the different project villages; again with higher incomes for the villages downstream, but with increasing opportunities for the villages upstream and the upper reservoir area due to their location at a new interregional road. The villagers in the lower reservoir area report the lowest income, with, however, again with differentiations between the households inside the village.

21. **Unexploded Ordnance (UXOs).** The main project construction sites (dam & power station) are considered to have a relatively low risk of UXOs and so are the other project areas of influence. Nonetheless, being adjacent to heavily impacted areas in the north-east of Xieng Khouang Province, the Project will take necessary measures to handle the remaining risk of UXOs.
22. **Physical Cultural Resources.** Physical resources of archaeological and cultural significance have been identified in Thahuea village at a tributary downstream of the dam. Findings of Neolithic remains of villagers in 2LR are currently under investigation by NNP1's Environmental Management Office to assess the sources and the significance of these findings.
23. **Ethnicity.** The population distribution by ethnicity (see details in the Social Impact Assessment) shows that the 3 main ethnic groups in the project area are Lao Loum, Hmong, and Khmu. The distribution of ethnic groups tends to vary by zone. The not directly impacted villages upstream of the reservoir area tend to be either predominantly Lao or predominantly Khmu (Nasay, Nahong, Phonhom). Only 1 village has about half Lao and half Hmong residents. The three villages at the upper edge of the reservoir are more ethnically diverse. The largest community, Pou, has about 29% Lao Loum, 69% Hmong, and the rest Khmu. Piengta and Hatsamkhone are predominantly Lao Loum. The four villages in the lower part of the reservoir and the one village in the construction area are almost completely Hmong. Although Hmong are traditionally highland residents, these communities live in the river valley. Their settlements are quite recent with the oldest of the four villages having been established about 30 years ago. The lands were given to these villagers after the civil war, in gratitude for their support for the Pathet Lao. Nonetheless, the Project assessed in the REDP that they fulfil the criteria of ADB's definition of indigenous people based on national discussions of customary land use rights and ethnic groups together with the criteria outlined in the ADB Social Policy Statement (SPS) 2009. The communities downstream of the reservoir are entirely or predominantly Lao Loum, with the exception of Phonsy which is predominantly Khmu. 2 villages have significant populations of Hmong and Khmu (about 10% each) living with the majority Lao Loum.
24. **Gender.** Gender roles vary between the different villages. In general, marketing exchanges including both the purchase and sale of goods in distant towns are predominantly male activities, as are political leadership roles. On the other hand, household and local work is mainly conducted by women. Schooling for women is lower than for men. The main ethnic group in the project area is organized patriarchic and above all women lack language skills and confidence to speak in public. The Project will implement a Gender Equity policy; this includes a pro-active policy during consultations and gender equality in all legal matters.
25. **Vulnerability.** Vulnerable Households are households who might suffer disproportionately from the loss of fixed and movable assets, other assets, and production base; or face the risk of being marginalized from the effects of resettlement. In the project area, a series of vulnerable households have been identified. Furthermore, communities will constantly be monitored on vulnerable households and these households will be given special attention

too. Vulnerable households face the same impacts as other people in the Project Impact Zone. However, they are more sensitive for external shocks and therefore all the impacts described can have a stronger impact on their live.

26. **Education.** All villages have a primary school within their village, but of variable qualities. Some teach up to Grade 2, while others have classes up to Grade 8. The number of teacher per students varies considerably and above all in the remote villages of the lower reservoir area, education facilities lack quality because of remoteness of the villages and consequently schools. The numbers of people who have completed any formal education is still quite low, especially among more remote communities. It is only those communities downstream from the proposed dam site, near roads and larger towns that have higher rates of.
27. **Health.** Most villages potentially affected by NNP1 have health service within 2 hours of travelling. However, the four villages to be resettled from the lower reservoir area have just access to once village health centre, with the next district hospital above all during rainy season difficult to access. The most common causes of illness are respiratory diseases, intestinal infections, and malaria. Potential serious threats to long-term health status in the Nam Ngiep River Basin are malnutrition and the increase of sexually transmitted infections, in relation with infrastructure and mining activities in the area.

#### ***(iv) Social Impacts and Project Measures***

28. **Environment.** For environmental impacts, please refer to the Environmental Impact Assessment and connected environmental mitigation measures plans.
29. **Impacted Communities.** A total of 26 villages and one hamlet are potentially directly and indirectly impacted along the Nam Ngiep River by the NNP1 Project. Some villages are affected by more than one Project activity. The preliminary route of the Transmission Line will affect a further 17 villages; the Access Road affects another 2 villages, as well as 3 villages affected by main construction. Thus, altogether the Project impacts potentially 46 communities (45 villages plus one hamlet) in the wider Project Impact Zone. However, just 9 villages and one hamlet are expected to experience a moderate or significant impact: 3 villages in the upper-reservoir area, losing a considerable part of their low-laying agricultural land; 4 villages in the lower reservoir area, which will be completely inundated and requiring resettlement; 1 hamlet in the construction area, which will be inundated by the re-regulation reservoir and has to resettle; and 2 host communities, which have to share common resources and lose some privately held agricultural land in the designated resettlement site. All other villages along the Access Road and Transmission Line will lose a small portion of their lands or temporary access to lands, while villages upstream of the reservoir and downstream of the re-regulation dam might experience water changes in the river and impacts on related socioeconomic activities. Land acquisition and resettlement impacts will be experienced mainly along in the reservoir areas and the construction site. Further details can be found in the REDP.
30. **Social Impacts.** The adverse social impacts associated with the construction activities of a

project of this nature not covered by land acquisition and resettlement will be avoided, minimized, and mitigated through the implementation of the Social Development Plan (SDP). This includes impacts on health, gender, labour, and culture. This SDP also covers beneficial measures which aims to improve the living conditions and promote community development in the project area. The following table provides an overview.

Project Area	Impacts	Operational relevance	Target Groups	Themes
<b>Upstream (Z1)</b>	Health Gender	Low	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
<b>Upper Reservoir Section (2UR)</b>	Health	Medium	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
	Gender		Women	Gender Mainstreaming, Schooling, Decision Making
	Youth		Youth	Schooling, income generation, preventive health
	Culture		Community	Local history, cultural artefacts
<b>Lower Reservoir Section (2UR)</b>	Health	High	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
	Gender		Women	Gender Mainstreaming, Schooling, Decision Making
	Youth		Youth	Schooling, income generation, preventive health
	Culture		Community	Local history, cultural artefacts
<b>Construction Area (Z3)</b>	Health	High	Children and Students, Families, Mothers, Camp Followers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition, STD
	Gender		Women	Gender Mainstreaming, Schooling, Decision Making
	Youth		Youth	Schooling, income generation, preventive health
	Culture		Community	Local history, cultural artefacts
	Labour, Social Impact of Labour		Workers / Employees, Affected communities	Employment policy, skill training for locals, community management, workers / employees health; prevention of social disturbance
<b>Far Downstream (Z4)</b>	Health	Low/Medium	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition; Water Supply Program
<b>Host communities and resettlement</b>	Health	High	Children and Students, Families, Mothers, Camp Followers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition, STD

Project Area	Impacts	Operational relevance	Target Groups	Themes
site / near downstream (Z5)	Gender		Women	Gender Mainstreaming, Schooling, Decision Making
	Youth		Youth	Schooling, income generation, preventive health
	Culture		Community	Local history, cultural artefacts
	Labour, Social Impact of Labour		Workers / Employees, Affected communities	Employment policy, skill training for locals, community management, workers / employees health; prevention of social disturbance
Access Road	Health	Medium	Community	Road Safety (see ESMMP-CP Access Road)
	Health	High	Labour/Community	Camp Follower / STD
	Gender	Medium	Women	Gender Mainstreaming, Decision Making
	Labour	Medium	Labour	Community management, workers / employees health
Transmission Line	Health	Medium	Community	Electricity-related safety (to be included in the ESMMP-CP Access Road)
	Gender		Women	Gender Mainstreaming, Decision Making
	Labour		Labour	Employment policy, skill training for locals, Community management, workers / employees health

*Reprint of SDP Table 5 - SDP covered Project Impacts*

### **(v) Institutional Arrangements and Implementation**

31. **National Framework.** To implement these programs, the Project has established the necessary operational framework, processes and institutions, including on government side a Provincial Resettlement and Livelihood Restoration Committee and connected its secretariat, the Resettlement Management Unit; and the Village Development and Coordination Committees on village level, with its corresponding District Coordination Committees.
32. **NNP1PC.** NNP1PC has established inside the Environmental and Social Division (ESD) a Social Management Office (SMO) which is responsible for implementing and coordinating the social activities of the Project. The SMO is headed by a Senior Social Manager reporting to the ESD Deputy Managing Director. This person is responsible for the overall implementation of the social obligations set in the Concession Agreement, the REDP and the Action Plans describe therein, and of the necessary interactions and coordination with the numerous parties involved. He or she will implement all related programs and activities with a differentiated team of five SMO sections, again differentiated into several units,

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encompassing a broad range from resettlement infrastructure, resettlement and livelihood restoration, social development, and monitoring and documentation, based in several offices at the Dam Site, in Sopyouak, in Thaviengxay, in Pakxan, and in Vientiane. This team will encompass more than 50 people, including national and foreign experts, supported by national and international consultants for specific topics such as nutrition, fisheries, etc.

33. **External Monitoring.** The Project's activities will be additionally externally monitored by the Independent Advisory Panel, the Independent Monitoring Agency in cooperation with GoL, and the Lenders' Technical Assistance; adding to self-monitoring of the Project via a monitoring section in SMO and monitoring by government institutions on several levels with regular reporting obligations by the Project on a monthly, quarterly, and annually basis, as well as ad-hoc reports in case of non-compliance issues.
34. **Grievance Redress Mechanism.** Finally, the Project has established a Grievance Redress Mechanism (GRM), which allows PAPs to raise their concerns and grievances with the Projects in a transparent manner over several steps. If mediation and reaction of the Company do not lead to success, PAPs can file a grievance with the Village Grievance Redress Committee to find a solution; if there is no success, the case will be forwarded to the District Grievance Redress Committee and in case of no success to the Provincial Grievance Redress Committee. In all committees the different Project stakeholders are present to support the finding of a mutual solution. In case that all these steps cannot solve a case, it can be handed over to the national judicial system. Independently from the GRM, PAPs also have access to ADB's Accountability Mechanism.

#### ***(vi) Public Health Action Plan***

35. **Health Status.** Baseline data at the community level found that the diseases and health problems of people in the project area are consistent with issues reported elsewhere in the country. The most common diseases are food and water borne diseases like diarrhoea, dysentery, food poisoning, typhoid; Arthropod vector borne diseases like malaria, dengue fever; diseases that can be prevented through vaccination like hepatitis B, measles, tetanus of babies; parasitic diseases like opisthorchiasis, hookworm, whipworm, tapeworm; respiratory infections like tuberculosis, acute respiratory infection (ARI), common cold, influenza; nutritional imbalance like malnutrition, vitamin A deficiency, iodine deficiency, anaemia; and reproductive health problems like sexually transmitted diseases (STD), including syphilis, gonorrhoea, Chlamydia, HIV/AIDS.
36. **Objectives.** The objectives of the Project are to build on existing government plans and structures and to assist the GoL in reaching the Millennium Development Goals (MDGs) and other health related targets; to prevent and mitigate significant adverse health effects in the communities, both in the village and district levels; to improve the health situation of local people, including residents in the resettlement villages, with special attention on strengthening skills of village health workers; to promote Behavioural Change Communication (BCC) for health related programs and prevention strategies, focusing on

improved knowledge and awareness of endemic causes of morbidity and mortality, as well as on maternal and child health care; and to build capacity for health care providers.

37. **Sub-Programs.** The PHAP implements therefore several sub-programs on: community health in the resettlement area; general community health improvement in the Project Impact Zone; capacity building for village health volunteers, health centres and district health office staff; water supply and sanitation program; and a special social management and mitigation plan for camp followers. Construction-related public health impacts are addressed through contractors' obligations regarding minimizing dust, noise and air pollutants as well as traffic safety.

### ***(vii) Labour Management Plan***

38. **Labour Status.** The amount of labour required is estimated to be about 1,000 workers/day in the first 2 years; rising to 1,800 workers/day in the third and fourth years; and then reducing again to 1,000 workers/day for the remaining construction period<sup>1</sup>. An administration office of the main contractor and a Company office are to be located in the construction area as well as a sub-contractor labour camp. Management staff of both the main contractor and the owner will be stationed within the construction area as well as the workers of the sub-contractors. Heavy equipment such as bulldozers, dump trucks, excavator, truck cranes, and drilling machines, would be brought in and temporary facilities such as the crushing plant, batching plant and base camp would be constructed. Due to the requirement of large numbers of site workers and the associated influx of labour, careful adherence is required to policies and statutory requirements governing labour. With the influx of a large number of workers into the Project construction sites, the residential areas for the workers will be heavily populated. This could apply pressure on local resources and villagers, including health and cultural issues. Therefore, the Project developed a Labour Management Plan based on the Lao Labour Law and international standards, including ADB's Social Protection Requirements and the IFC Performance Standard 2: Labour and Working Conditions; complementing the other programmes of the Project's SDP.
39. **Local Labour Recruitment.** It is common for contractors to prefer their own pool of skilled and unskilled labour. However, to the extent possible, workers will be recruited from the communities near the Project and in particular from those communities most affected by the Project, so that economic benefits can accrue to them, as income and in developing skills from their work, as well as limiting the influx of labour. In interviews with many of the households, a number of people said they would be available to join the labour force for the construction of the Project, though it was not clear if they would be available full time or only during the agricultural off season. Still, there is a considerable potential labour pool immediately around the Project, certainly for unskilled and semi-skilled work. Every effort will be made to recruit workers from these communities by supporting local workers in

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<sup>1</sup>JICA NAM NGIEP-I HEPP (Phase II), 2002 page 10-15

applying for jobs with the Project and vice versa urge contractors and subcontractors to give preferential treatment to local workers in case of similar qualification of applicants.

40. **Objectives.** The objectives of the labour management plan are thereby to:
- Take measures to ensure that NN1PC, contractors and subcontractors comply with ADB's Social Protection Requirements throughout the project life.
  - To encourage the labourers and the contractors to realize the significance and consequences of health, cultural and social misbehaviour in work places
  - To promote awareness of the concerns of villagers in the construction area regarding health, cultural, and social consequences of the construction and its labourers.
  - To encourage the contractors to engage local residents, in particular those from affected communities, as workers on the Project.
  - To set up suitable plans for health in work places, proper use of local resources, minimizing social misbehaviour, avoiding cultural conflict, and related issues
41. **Sub-Programmes.** The SDP addresses thereby the following topics: NN1PC company policy on Freedom of Association, Policy on contractors and other providers of goods and services regarding labour standards, recruitment policy for local labour, skill training for local residents, community management and infrastructure development, human trafficking impacts and management, and conflict resolution. The plan addresses furthermore project labour strategy/measures for employees/workers' health.

### ***(viii) Community Development Programme***

42. **Community Development Status.** The community development plan focuses on several of the key cross-cutting issues for the communities throughout the project area. These communities will be facing enormous transformations, with impact from and access to the commercial market, external social and cultural forces, and integration into a global system.
43. **Objective.** The objective of the community development plan is to help prepare villagers for these transformations, yet at the same time enable them to maintain their sense of community and culture, and to earn adequate livings within their communities, without having to migrate to the city if this is their preference.
44. **Programmes and Plans.** The community development plan focuses on the aspects which could help improve the community as a whole, to lift up the quality of life, the standard of living, and the income of the affected people, complementing other programs outlined above and in the REDP. The community development plan consists of:
- Gender Action Plan;
  - Programs for Youth and Children; and,
  - Cultural Awareness/Heritage Preservation Program.

45. **Gender Action Plan.** The Gender Action Plan includes two programs: Gender Mainstreaming, which focuses on gathering and applying gender specific data, requiring joint spousal authorization and receipt, support of women and girls' schooling, increasing income opportunities for women in the resettlement site, and supporting women's engagement in the Project; the second program addresses Capacity Building to Promote Women's Leadership and Decision Making Power by village level workshops on gender roles and women management trainings. Gender-related health issues are covered under the Health Program.
46. **Youth and Children Program.** The Youth and Children program focuses on the youth who have just finished their education and cannot attend school at the next level. At the same time, they are not yet mature enough to take the roles of adults. At present, unemployment and underemployment among youth is extensive. The program is intended to give them training in life and occupational skills that could be suitable for them. The program is also intended to include activities that focus on other areas of particular concern to youth of this age:
- School programs including a detailed scholarship program
  - Income generation activities for youth and children
  - Youth mobilization
  - Preventive health campaign
47. **Cultural Awareness/Heritage Preservation Program.** The last program is the cultural awareness/heritage preservation program. Surveying and studying historical, art, culture or archaeological sites within and around the community in the project area are the main activities of the program. With support and training from expert consultants, local people are encouraged to realize and later take the leading role in setting plans and management programs to promote, preserve and transfer their culture to the next generation. Objectives of this program are to survey, study historical, archaeological, religious or any other sacred places within the Project area for use as a database for appropriate management and to promote and preserve historical and archaeological sites and local culture for next generations, and to prevent their damage or despoliation. This will be implemented via programs to promote local history and creation of district or village museums and other activities to support local culture and heritage and protocols for contractors in case of chance discovery of cultural artefacts during construction or operation.

### ***(ix) Monitoring***

48. **Targets.** While monitoring of measures in the REDP are directly linked to Livelihood and Income Restoration monitoring as defined in the Concession Agreement, monitoring of the SDP programs has to be outlined in more details. There are two targets for evaluation and monitoring of the SDP:
- i. To follow closely the progress of each plan, both in terms of the accomplishment of each activity, and in terms of the social indicators; and

- ii. To identify problems or obstacles during implementation. If necessary the adjustment of the plan or program will be done to ensure overall success.
49. **Institutions.** Monitoring and evaluation can be broadly categorized as 2 types of processes: an internal monitoring system, and an external monitoring system. For details in regards to monitoring and evaluation of the REDP see the respective report. Several programs of the SDP are started up with support from the company but can then be operated by 3<sup>rd</sup> parties afterwards on a sustainable basis after training and handover for a time period long after the completion of the activities covered by this SDP. This includes for example, but not being limited to, a community water supply program, which will be constructed with support by the Company; but following appropriate training and hand over of the facilities, as specified by the Department of Hygiene, Ministry of Health, these facilities will be operated by the community itself. The continued Operation and Maintenance will be monitored by the Village Water Committee. Thus, the outlined monitoring of the company is just a first step, while continued self-monitoring by communities or other 3<sup>rd</sup> parties of programs started with support of the company will sustainably operate afterwards by 3<sup>rd</sup> parties.
50. **Indicators.** The social indicators which are used to evaluate the success of the social development plans are household income, school attendance, literacy rate, health facilities, nutritional status, child mortality rate, maternal care and the like. To the extent possible, the social indicators for the Project will correspond with the indicators for the Millennium Development Goals.
51. **Schedule.** The schedule of reporting of each sub-plan or sub-program is described, listing the frequency of data collecting and frequency of reporting (from daily to monthly, quarterly, and yearly analyses), responsible persons who carry out the reporting (inside and outside the Company), the channel of submission of the report and where each activity will be conducted among the communities in different zones of the Project. Implementation of all Action Plans have started or will start latest with the commencement of main construction in the second half of 2014.
52. These different measures from planning to implementation to monitoring will allow support for progressive and sustainable development of communities in the Project Impact Zone and thus to a success of the NNP1 Social Development Plan for all stakeholders involved.

This version of the SDP has been published in June 2014 on the Company as well as ADB Website and is also available in the Company's Information Centres.

This SDP will be revised whenever major mile stones have been reached and/or new information is available to integrate.

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## Abbreviations

Abbreviation	Full Name
ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency syndrome
AIT	Asian Institute of Technology (of Thailand)
APs	Affected People
ARI	Acute Respiratory Infection
ASEAN	Association of Southeast Asian Nations
ASL	Above sea level
AusAID	Australian Agency for International Development
Avail.P	Available Phosphorus
AVG	Average
B.	“Ban” - Village in Laotian Language
BCS	Broad Community Support
BOD	Biological Oxygen Demand
BOOT	Build-Own-Operate-Transfer
BOT	Built-Operate-Transfer
BP	Bank Procedure (World Bank)
CA	Concession Agreement
CAD	Computer Assisted Drafting
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity Economic efficiency
CBR	Crude Birth Rate
CDF	Community Development Fund
cent/kWh	Cent per kilo Watt hour
CFRD	Concrete Faced Rock fill Dam
CITES	Convention on International Trade in Endangered Species
cm.	Centimetre
cm <sup>3</sup> /s	Cubic centimetre per second
CMR	Child Mortality Rate
COD	Commercial Operations Date
CPS-NSC,2002	CPS-National Statistical Center,2002
CWR	Centre for Water Research of Western Australia
DAFEO	District Agriculture and Forestry Extension Office
DAFO	The District Agriculture Forestry Office
DBH	Diameter at Breast Height

DCC	District Coordination Committee
DDT	Dichloro-Diphenyl-Trichlorethane
DEPD	Department of Energy Promotion and Development
DESIA	Department of Environmental and Social Impact Assessment inside MoNRE
DGC	District Grievance Committee
DGRC	District Grievance Redress Committee
DHF	Dengue Haemorrhagic Fever
DHO	District Health Office
DHPM	Department of Hygiene and Preventive Medicine
DiF	The Division of Fisheries
DLF	Department of Livestock and Fisheries
DMD	Deputy Managing Director (NNP1PC)
DOE	Department of Electricity
DOF	Department of Forest
DOL	Department of Land
DPWT	Department of Public Works and Transport
DRWG / DWG	District Resettlement Working Groups / District Working Groups - old terminology; NNP1's relevant institution is labelled DCC - District Working Group
DS	Downstream
DSCR	Debt Service Cover Ratio
DWA	Defined Works Area
EAC	Environmental Assessment Committee
EAMP	Environmental Assessment and Management Plan
EC	Electrical Conductivity
ECA	Export Credit Agencies
ECCD	Early Childhood Care for Development
ECRD	Earth Core Rockfill Dam
EdL	Électricité du Lao
EDP	Ethnic Development Plan, one component of the REDP
EGAT	Electricity Generating Authority of Thailand
EGATi	EGAT international
EIA	Environmental Impact Assessment
EIRR, FIRR	Economic/Financial Internal Rate of Return
EL.( ) m	Meters above Sea level
EM	Environmental Manager
EMC	Environmental Management Committee

<b>EMMP</b>	Environmental Management & Monitoring Plan
<b>EMMU</b>	Environmental Management and Monitoring Unit
<b>EMO</b>	Environmental Management Office
<b>EMU</b>	Environmental Management Unit
<b>EOD</b>	Explosive Ordnance Disposal
<b>EPF</b>	An Environmental Protection Fund
<b>EPI</b>	Expanded Program of Immunization
<b>EPL</b>	The Environmental Protection Law (National Law 02/99)
<b>ERIC</b>	Environmental Research Institute of Chulalongkorn University
<b>ESD</b>	Environment and Social Division
<b>F/C</b>	Forage species/carnivorous species ratio
<b>F/S</b>	Feasibility Study
<b>FAO</b>	Food and Agriculture Organization of The United Nations
<b>FIPC</b>	Forest Inventory and Planning Centre
<b>FS, F/S</b>	Feasibility Study
<b>FSL</b>	Full Supply Level
<b>FTA</b>	Federal Transit Administration
<b>FWL</b>	Flood Water Level
<b>GDP</b>	Gross Domestic Product
<b>GHG</b>	Greenhouse Gases
<b>GIS</b>	Geographical Information System
<b>GMS</b>	Greater Mekong Sub-region
<b>GoL</b>	Government of Lao PDR
<b>GPS</b>	Global Positioning System
<b>GRID</b>	Gender Resource and Information Development (GRID) Center
<b>GRM</b>	Grievance Redress Mechanism
<b>GWh</b>	Giga Watt Hour (one million watt hour)
<b>H/H, HH</b>	Household
<b>Ha</b>	Hectare
<b>HC</b>	Head Construction Contractor
<b>HCC</b>	Head Construction Contract
<b>HEPP</b>	Hydroelectric Power Project
<b>HH</b>	Households
<b>HIV</b>	Human Immune Deficiency Virus
<b>HRD</b>	Human Resources Development
<b>HV</b>	High Voltage

<b>IAP</b>	Independent Advisory Panel
<b>IAR</b>	Impacted Asset Registration
<b>IBRD</b>	International Bank for Reconstruction and Development
<b>IDA</b>	International Development Association (a unit of the World Bank groups)
<b>IEE</b>	Initial Environmental Examination
<b>IFC</b>	International Finance Corporation
<b>IMA</b>	Independent Monitoring Agency
<b>IMF</b>	International Monetary Fund
<b>IMR</b>	Infant mortality Rate
<b>IOL</b>	Inventory of Loss
<b>IPDP</b>	Indigenous Peoples Development Plan
<b>IPP</b>	Independent Power Producer
<b>IRR</b>	Internal Rates of Return
<b>IRRI</b>	International Rice Research Institute
<b>IUCN</b>	World Conservation Union (The International Union for Conservation of Nature)
<b>JBIC</b>	Japan Bank for International Cooperation
<b>JICA</b>	Japan International Cooperation Agency
<b>JSC</b>	Joint Steering Committee
<b>KANSAI</b>	The Kansai Electric Power CO.,INC.
<b>km</b>	Kilometre
<b>km<sup>2</sup></b>	Square Kilometre
<b>kV</b>	Kilo volt
<b>kVA</b>	Kilo Volt-Ampere
<b>kW</b>	Kilo watt
<b>LACP</b>	Land Acquisition and Compensation Plan
<b>LAK</b>	Lao Kip
<b>LANIC</b>	Lao National Inter Committee
<b>LAR</b>	Land Acquisition and Resettlement
<b>LFNC</b>	Lao Front for National Construction
<b>LHSE</b>	Lao Holding State Enterprise
<b>LIRP</b>	Livelihood and Income Restoration Plan
<b>LNCE</b>	Lao National Committee for Energy
<b>LNFC / LFNC</b>	Lao National Front for Construction / Lao Front for National Construction
<b>LNTA</b>	Lao National Tourism Administration
<b>LPRP</b>	Lao People's Revolutionary Party
<b>LRC</b>	Livelihood Restoration Committee

<b>LRHS</b>	Lao Reproductive Health Survey - 2000
<b>LSHE</b>	Lao Holding State Enterprises
<b>LTA</b>	Lenders' Technical Adviser
<b>LV</b>	Low Voltage
<b>LWU</b>	Lao Women Union
<b>m</b>	Meter
<b>m<sup>2</sup></b>	square meter
<b>m<sup>3</sup></b>	Cubic meter
<b>m<sup>3</sup>/s</b>	Cubic meter per second
<b>MAF</b>	Ministry of Agriculture and Forestry
<b>MAR</b>	Mean Annual Runoff
<b>MCTPC</b>	Ministry of Communication, Transportation, Post and Construction
<b>MDB</b>	Multilateral Development Bank
<b>MEM</b>	Ministry of Energy and Mines
<b>MIH</b>	Ministry of Industry and Handicrafts
<b>MLA</b>	Multilateral Agencies
<b>mm.</b>	Millimetre
<b>MMR</b>	Maternal Mortality Rate
<b>MOH</b>	Ministry of Health
<b>MOI</b>	Ministry of Industry
<b>MOL</b>	Minimum Operation Water Level
<b>MoM</b>	Minutes of Meeting
<b>MoNRE</b>	Ministry of Natural Resources and Environment
<b>MOU</b>	Memorandum of Understanding
<b>MRC</b>	Mekong River Commission
<b>MSL</b>	Mean Sea Level
<b>MSY</b>	Maximum Sustainable Yield
<b>MW</b>	Mega Watt (one million watt)
<b>MWL</b>	Maximum Water Level
<b>N/A</b>	Not Applicable
<b>NAFRI</b>	National Agriculture and Forest Research Institute
<b>NBCA</b>	National Biodiversity Conservation Area
<b>NCC</b>	National Consulting Company
<b>NEAP</b>	National Environmental Action Plan
<b>NEM</b>	New Economic Mechanism
<b>NEPO</b>	National Energy Policy Office

<b>NGO</b>	Non-Government Organization
<b>NGPES</b>	Nation Growth and Poverty Eradication Strategy
<b>NNP1</b>	The Nam Ngiep Hydropower Project 1
<b>NNP1PC</b>	Nam Ngiep 1 Power Company
<b>NPA</b>	National Protected Area (the preferred term is NBCA)
<b>NSC</b>	National Statistics Centre (of Lao PDR)
<b>NTEC</b>	Nam Theun 2(NT2) Electricity Company
<b>NTFP</b>	Non-Timber Forest Product
<b>NTPC</b>	Nam Theun 2 Power Company
<b>NUOL</b>	National University of Laos
<b>NWL</b>	Normal Water Level
<b>OD</b>	Operational Directive (World Bank)
<b>ODA</b>	Official Development Assistance
<b>OHS</b>	Occupational Health and Safety
<b>OP</b>	Operational Policy (World Bank)
<b>PAFO</b>	Provincial Agriculture and Forestry Office
<b>PAP</b>	Project Affected People
<b>PCPP</b>	Public Consultation and Participation Process
<b>PDA</b>	Project Development Agreement
<b>PDR</b>	People Democratic Republic
<b>PE</b>	Primary Energy
<b>PGRC</b>	Provincial Grievance Redress Committee
<b>PHO</b>	Provincial Health Office
<b>PIB</b>	Public Information Booklet
<b>PM</b>	Prime Minister
<b>PMF</b>	Probable Maximum Flood
<b>PMM</b>	Protection and Mitigation Measures
<b>PMO</b>	Prime Minister's Office
<b>PMP</b>	Probable Maximum Precipitation
<b>PPA</b>	Power Purchase Agreement
<b>PPE</b>	Personal Protective Equipment
<b>PRA</b>	Participatory Rural Appraisal
<b>PRLRC</b>	Provincial Resettlement and Livelihood Restoration Committee
<b>PRP</b>	Preliminary Resettlement Plan
<b>QA</b>	Quality Assurance
<b>RAP</b>	Resettlement Action Plan

RCC	Roller Compacted Concrete
RCS	Replacement Cost Survey
RCS/RCSC	Resettlement and Compensation / Resettlement and Compensation Sub-Committee
REDP	Resettlement and Ethnic Development Plan
RH	Relative Humidity
RMU	Resettlement Management Unit
RO	Resettlement Office
ROE	Return on Equity
ROR	Run of the River
ROW	Right of Way
RTM	Round Table Meeting
RWL	Rated Water Level
SCADA	Supervisory Control and Data Acquisition
SD	Social Development and Monitoring Section
SDP	Social Development Plan
SE1	Secondary Energy One
SE2	Secondary Energy Two
SIA	Social Impact Assessment
SMMP	Social Management and Monitoring Plan
SMO	Social Management Office
SOA	Study of Alternatives
SPS	Safeguard Policy Statement
SPS 2009	Social Policy Statement 2009 (ADB)
STD	Sexually Transmitted Disease
STEA	Science, Technology and Environment Agency
STI	Sexually Transmitted Infection
t/km <sup>2</sup> /yr ; (ton/km <sup>2</sup> /year)	tonnes per square meter per year
T/L	Transmission Line
TA	Technical Assistance
TB	Tuberculosis
TBA	Traditional Birth Attendant
THPC	Theun-Hinboun Power Company
TOR	Terms of Reference
TSS	Total Suspended Solids
UN	United Nations

<b>UNDP</b>	United Nations Development Program
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNFCCC</b>	UN Frame work Convention on Climate Change
<b>UNFPA</b>	United Nations Population Fund
<b>UNICEF</b>	United Nations International Emergency Children's Fund
<b>UNITS</b>	
<b>UPS</b>	Uninterruptible Power Supply
<b>US</b>	Upstream
<b>US\$ / USD</b>	United States Dollar (US Dollar)
<b>USEPA</b>	United States Environment Protection Authority
<b>UXO</b>	Unexploded Ordnance
<b>VDC</b>	Village Development Coordination Committee
<b>VGRC</b>	Village Grievance Redress Committee
<b>VHV</b>	Village Health Volunteer
<b>VRC</b>	Village Resettlement Committee
<b>WB</b>	World Bank
<b>WCD</b>	World Commission on Dams
<b>WCS</b>	Wildlife Conservation Society
<b>WHO</b>	World Health Organization
<b>WMCA</b>	Watershed Management Conservation Agency
<b>WQ</b>	Water Quality
<b>WREA</b>	Water Resources & Environment Administration
<b>WWF</b>	World Wildlife Fund

## CHAPTER 1 - Introduction

1. The Social Development Plan (SDP) is one of ten documents required by the Nam Ngiep 1 Hydropower Project (NNP1) Concession Agreement (CA) and its referring standards, which include standards of the Asian Development Bank (ADB). The SDP describes measures to address the wider anticipated social, economic, and cultural impacts of the Project on persons living and working within its project impact zone as outlined in the Social Impact Assessment. It provides plans to mitigate these direct and indirect impacts and how they may be operationalized during the project's lifetime. It complements thereby the Resettlement and Ethnic Development Plan (REDP) by addressing all wider project measures not related to land acquisition, involuntary resettlement, and ethnicity outlined in the REDP. Specific action plans to address different social and environmental impacts are outlined in the following documents, in total comprising the full Environmental and Social Impact Assessment (ESIA):
  - i. The Environmental Impact Assessment (EIA), which reviews the environmental conditions and potential environmental impacts of the proposed Project on the immediate area to be affected by the project facilities (construction site, reservoir, downstream, and adjacent areas), with suggested mitigation measures. The EIA also includes the elements of a suggested watershed management (WSM) program, to protect the forest and water resources throughout the Nam Ngiep watershed, maintaining sufficient water supply to the dam and minimizing soil erosion and siltation, to ensure the dam can operate effectively over its expected life.
  - ii. The Environmental Management Plan (EMP), which provides the systematic program over the project's lifetime to mitigate environmental impacts within the immediate area affected by the Project.
  - iii. The Social Impact Assessment (SIA), which reviews anticipated social, economic, labour, and cultural impacts of the proposed Project as well as the legal and social framework it is placed in; based on an inclusive, participatory process of stakeholders assessed.
  - iv. The Resettlement and Ethnic Development Plan (REDP), which describes the social, cultural and economic compensation and mitigation commitments of the developer and the program of all mitigation measures involving compensation, whether in cash or in kind, for losses incurred by people because of the construction and/or operations of NNP1. This includes not just the measures to be taken for those who will need to resettle, but also for those who have to relocate (within the same community), and those who face losses of other lands and/or of sources of livelihoods because of the Project. Livelihood restoration activities for significantly impacted project-affected people will be integrated into the REDP via the Livelihood and Income Restoration Plan (LIRP). The document also includes the Ethnic

Development Plan (EDP) because most persons severely affected by the Project are from ethnic communities, as are many of those moderately affected.

- v. The Social Development Plan (SDP), which provides the systematic program of all social, economic, labour, and cultural development measures that do not require compensation for losses and so are not part of the REDP.
  - vi. The Initial Environmental Examination (IEE) of the Transmission Lines, which assesses the environmental and social impacts of the proposed transmission lines.
  - vii. The Initial Environmental Examination (IEE) of the Access Road, which assesses the environmental and social impacts of the proposed access road to the Project. This report is provided as an annex to the ESIA.
  - viii. The Land Acquisition and Compensation Management Plan for the Access Road (LACMP-AR), which describes the social, cultural, and economic compensation and mitigation commitments of the developer and the program of all mitigation measures involving compensation, whether in cash or in kind, for losses incurred by people because of the Project's early construction of the Access Road from Nonsomboun village to the Dam Site. As of April 2014, more than 80% of land required has already been compensated and a Social Compliance Audit of the implementation of the LACP-AR has been conducted by a senior social safeguards consultant engaged by ADB in order to meet ADB Social Policy Statement 2009 requirements.
  - ix. The Land Acquisition and Compensation Plan for the Transmission Line (LACP-TL), which describes the social, cultural, and economic compensation and mitigation commitments of the developer and the program of all mitigation measures involving compensation, whether in cash or in kind, for losses incurred by people because of the Project's late construction of the Transmission Line from the Dam Site to Nabong Substation.
  - x. The Initial Environmental Examination (IEE) of the resettlement area, which assesses the environmental impacts of the development of the designated resettlement site in Houaysoup.
2. Documents comprising the ESIA are based on prior technical feasibility studies and drafts.
  3. The ESIA documents will be disclosed to the public as required by the Project's Concession Agreement (CA).<sup>2</sup> This requires disclosure via public consultation meetings from village to international level, online publication on NNP1 and ADB websites, as well as printed publications in the NNP1 Power Company (NNP1PC) Headquarters, the field offices, and the information centres. Furthermore, the documents will be provided to different

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<sup>2</sup> Annex C, Clause 17.b.xvi and 17.c.ii.

Government of Lao PDR (GoL) authorities, including the Ministry of Natural Resources and Environment (MONRE), project implementation partners (PRLRC and RMU) and provincial, district, and village authorities. Executive summaries will be translated into Lao and Hmong languages. Further details on information disclosure can be found in the SIA. As the ESIA documents are considered living documents, any update will be provided to the same stakeholders via the same procedures. This includes a first revision of the REDP, including the LIRP and EDP after 6 months from the Effective Date of the CA, as required by the CA<sup>3</sup>. All updates will first be submitted to MoNRE, ADB and lenders for review and approval, prior to implementation.

### ***1.1 Scope of the SDP***

4. The Social Development Plan (SDP) covers those social, economic, labour and cultural issues not covered in the REDP. The SDP elaborates on the issues of public health, labour management, and a community development plan, the latter consisting of issues relating to gender, youth and children, and cultural awareness. As such, the SDP outlines an organized program to fulfil the purpose of mitigation and development of the project affected persons (PAPs) who are living in the project impact zone. The principle of the SDP is to make the social and economic conditions of directly and indirectly affected people to be at least equal to, if not better than their conditions before the Project. Thus the scope of the SDP covers a population larger than those immediately affected by land acquisition and resettlement.

### ***1.2 SDP Process***

5. Fundamental data on areas and communities affected by the Project have been obtained from studies conducted for the NNP1 Project prior to the studies for the ESIA. Two feasibility studies were conducted by Nippon Koei Co., Ltd. in 2000 and 2002. National Consulting Group (NCC), a Lao consulting company, was hired by the developers to conduct a baseline survey of the communities and local population in 2007. Subsequently, the Environmental Research Institute of Chulalongkorn University (ERIC) was engaged to work together with the Lao consultants to produce a draft of the current documents contributing to the Environmental and Social Impact Assessment (ESIA).
6. Various methods were used to collect relevant data, including: population survey, assets inventory, and in-depth consultations with PAPs, their local leaders and elders, district and provincial administrators, and other key informants. Information on the Project was disseminated through public consultation with PAPs and others in the study area. Since

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<sup>3</sup> The Effective Date will be reached once all specified conditions for the Effective Date of the Concession Agreement as outlined in the main document (outside Annex C) have been fulfilled and Government of Laos and NNP1 Power Company have acknowledged this Effective Date. Therefore, these requested updated Social Documents by the CA, Annex C, will be provided approximately at the beginning of 2015.

2011 the developers engaged the Sustainable Society, Agriculture, Forestry and Environment Consult Company (SSAFE) to carry out further public consultations and studies, with the proposed entitlements, programs and activities outlined in the REDP and SDP discussed during these consultations.

7. In 2013/2014 a complete revision of the Social Safeguard Documents was conducted by NNP1 to further improve and bring the documents into compliance with GoL and ADB safeguards standards. This included a series of public consultations (see the Social Impact Assessment for details).
8. Steps for the preparation of this version of the Social Development Plan include:

Year	Steps towards the development of the SDP
2007 First draft; 2012 Update 2013/14 Revision	Review of the legal framework of Lao PDR and ADB policies and guidelines;
2007 First draft; 2012 Update 2013/14 Revision	Review of the detailed project design, feasibility studies and previous social surveys;
2007 – on-going	Consultation with stakeholders (including PAPs and government officials in affected provinces/ districts) to obtain their inputs for the SDP Design and to enhance ownership; facilitation of the approval process; and ensuring implementation of the SDP
2007/8 1 <sup>st</sup> Survey 2011 2 <sup>nd</sup> Survey	Socioeconomic and health survey, with full coverage in directly affected communities and sample surveys in the wider project area;  <i>Remark: Legally effective Baseline Surveys planned for mid-2014</i>
2012	Analysis of data to identify different categories of PAPs depending upon the degree and scale of impacts of the project components;
2007 First draft; 2012 Update 2013/14 Revision	Formulate the time schedule for the implementation of SDP;
2012-2014	Determine monitoring procedures during and post-COD periods and identify competent external monitoring agencies for external monitoring, and prepare a TOR for the same;
2007 First draft; 2012 Update 2013/14 Revision	Prepare detailed cost estimates for implementation of the SDP including the costs for administrative overheads.

Table 1: Development Steps to Produce the SDP

### 1.3 Structure of the report

9. The SDP report consists of 7 chapters:
  - i. Chapter 1 – **Introduction**: describes the scope and structure of the report including a list of the authors of the report.

- ii. Chapter 2 - **Baseline Information**: presents a brief summary of project affected impacts and issues related to the SDP.
- iii. Chapter 3 - **Institutional Arrangements**: describes the institutional organization for the Project, with particular reference to the implementation of the SDP, required for planning and implementation of programs designed to address social impacts and issues.
- iv. Chapter 4 - **Public Health Action Plan**: describes the health status and initiative in the affected area and presents the community health program; including objectives and scope, operational arrangements, roles and responsibilities of various institutions, implementation schedule, and costs and budgeting.
- v. Chapter 5 - **Labour Management Plan**: provides the details of local labour recruitment policy, community management; education on social misbehaviour, such as campaigns against alcohol, drug abuse and prostitution; sexually transmitted disease prevention and management; human trafficking prevention and management; and conflict resolution; including objectives and scope, operational arrangements, roles and responsibilities of various institutions, implementation schedule, and costs and budgeting.
- vi. Chapter 6 - **Community Development Plan**: is comprised of 3 sub-programs: (i) gender action plan; (ii) program for youth and children, and; (iii) cultural awareness/heritage preservation program. The gender action plan describes gender balance targets; requirements for joint spousal authorization and receipt; supporting women and girls' schooling; women's participation in village level activities; and, capacity building to promote women's leadership and decision making power. Programs for youth and children cover issues concerning those who leave school early; a literacy program; an income generating skill training program; a preventive health campaign; and youth mobilization. The cultural awareness/heritage preservation program proposes activities for surveying, preserving, protecting and promoting local cultures and local historical or archaeological or culturally important sites. All sub-programs include objectives and scope, operational arrangements, roles and responsibilities of various institutions, implementation schedule, and costs and budgeting.
- vii. Chapter 7 - **Reporting, Monitoring and Evaluation**: outlines the reporting of all the SDP programs and the evaluation and monitoring procedures, including conflict resolution mechanisms.

## CHAPTER 2 - Summary of Social Conditions and Project Impacts

10. This chapter provides a summary of baseline information regarding the Project Impact Zone, assessed during the Social Impact Assessment. For details, please refer to the respective report. The summary presents community and population profiles as well as project impacts regarding overall social aspects not directly related to involuntary resettlement and ethnic development, addressed in the Resettlement and Ethnic Development Plan (REDP).

### 2.1 Project Impact Zone (PIZ)

11. Within the broader Project Impact Zone, 5 distinct regions are identifiable through geographic, administrative and socioeconomic differences. These different regions are termed “impact zones”. Criteria for determining their boundaries include types and extent of project impacts on communities in each zone, corresponding closely with administrative boundaries. Figure 1 shows a map of the overall Project Impact Zone; zone-specific characteristics and expected impacts are described below as summaries of the details outlined in the specific chapters on each zone. The zones, provinces, districts, villages, and numbers of households can be found in Table 2 at the end of this section. Expected impacts and SDP summary baseline information are described by zone in sections 2.2 to 2.7.

No	Province	District	Village	No. of HH	No. of Population		Project Area
					Total	Female	
Zone 1- Upstream Area							
1	Xaysomboun	Thathom	Thaviengxay (Dong)	267	1,646	981	Upstream of the Reservoir
2			Phonngeng	95	771	371	
3			Nasong	111	681	240	
4			Viengthong	107	617	252	
5			Nasay	51	270	170	
6			Xiengkhone	102	546	266	
7			Nahong	92	543	273	
8			Phonhom	180	1,200	557	
<b>Total</b>				<b>1,005</b>	<b>6,274</b>	<b>3,110</b>	
Zone 2 Upper Reservoir area							
9	Xaysomboun	Thathom	Pou	172	1,129	557	2UR - Upper section of the Reservoir
10			Piengta	82	454	210	
11			Hatsamkhone	74	453	233	
<b>Total</b>				<b>328</b>	<b>2,036</b>	<b>1,000</b>	

No	Province	District	Village	No. of HH	No. of Population		Project Area
					Total	Female	
Zone 2 Lower Reservoir area							
12	Xaysomboun	Hom	Houaypamom	37	254	122	2LR - Lower section of the Reservoir
13			Sopphuane	58	416	206	
14			Sopyouak	126	916	439	
15			Namyouak	163	1,149	564	
Total				384	2,735	1,331	
Zone 3 - Construction Area							
16	Bolikhamxay	Bolikhan	Hatsaykham (sub-village)	33	218	108	Construction Area
Zone 4 - Far Downstream Area							
19	Bolikhamxay	Bolikhan	Nampa	84	584	293	Downstream of the re-regulation dam and host villages/ resettlement area
20			Somseun	221	1,207	602	
21			Houykhoun	358	2,180	1,076	
22		Pakxan	Thong Noi	165	839	410	
23			Thong Yai	86	437	218	
24			Sanaxay	274	1,156	582	
25			Phonsy	137	719	369	
26			Pak Ngiep	173	859	430	
27			Sanoudom	94	457	221	
Total				1,592	8,438	4,201	
Zone 5-Resettlement and Near Downstream Area							
17	Bolikhamxay	Bolikhan	Hat Gniun	67	371	157	Resettlement area
18			Thahuea	50	265	122	
Total				117	636	279	
Transmission Lines : 24 villages							
1	Bolikhamxay	Bolikhan	Hat Gniun	67	371	157	Trans mission Lines
2			Houykhoun	358	2,180	1,076	
3			Nampa	84	584	329	
4		Pakxan	Thong Noi	165	839	410	
5			Thong Yai	86	437	218	
6			Sanaxay	274	1,156	582	
7			Anusonxay	390	1,120	N/A	
8			Pak Ngiep	137	659	430	
9			Thaphabat	Xaysavang	87	123	
10		Vuenthat		356	523	N/A	
11		Pakthouay Tai		126	278	N/A	
12		Pakthouay Neu		174	391	N/A	

No	Province	District	Village	No. of HH	No. of Population		Project Area
					Total	Female	
13			Nongkuen	256	342	N/A	
14			Sisomxay	275	371	N/A	
15			Thabok	364	946	N/A	
16			Palai	221	315	N/A	
17			Somsaath	121	321	N/A	
18			Na	179	462	N/A	
19			Vientiane	Pak Ngum	Vuenkabao	125	
20	Xienglea Na	115			639	N/A	
21	Xienglea Tha	237			1,416	N/A	
22	Nong	111			498	N/A	
23	Thakokhai	178			378	N/A	
24	Nabong	365			456	N/A	
Total					4,851	15,554	N/A
Access Road 4 villages and 1 sub-village							
1	Bolikhambxay	Bolikhhan	Hat Gniun	67	371	157	Access Road
2			Hatsaykham	33	218	108	
3			Thahuea	50	265	122	
4			Nonsomboun	169	956	472	
5			Sisavath	340	1858	941	
Total				659	1,167	538	

Table 2: Overview on the Project Impact Zone: Administrative Units, Number of Households, and Population (Source: Field Survey 2008 and Field Survey 2011; For the Access Road Village Statistics 2013)

*Remark: Access Road and Transmission Line are additional elements and consequently some communities have been included and repeated for the Access Road and Transmission Line impact areas. Separate social reports on Access Road and Transmission Line are provided by the Project.*



## 2.2 Zone 1 – Upstream Area

12. Zone 1 covers the area upstream from the 320m MSL reservoir. Thus, there is no Land Acquisition and Resettlement (LAR) related impact expected. Eight (8) villages in this zone will be indirectly affected by the Project, located along the banks of the Nam Ngiep River and a tributary. All are under the governance of Thathom District, now Xaysomboun Province. The eight villages are Ban Thaviengxay, Ban Nahong, Ban Phonhom, Ban Phonngeng, Ban Nasong, Ban Nasay, Ban Viengthong, Ban Xiengkhone (cp. Table 2).
13. The possible impact to the communities in this zone results from their sharing of the Nam Ngiep River and its watershed<sup>4</sup>. Watershed management policies and implementation to protect the water resources of the Nam Ngiep may affect the use of forest and water resources by people in these communities. The watershed management programs will yield long-term benefits to the villagers by promoting more sustainable agricultural and forest management practices. The Project will implement programs along the Watershed Management Plan (see according environmental documentation) as well as awareness programs and water quality and fisheries monitoring programs. It will actively seek coordination with hydropower projects in the upper watershed of the Nam Ngiep.
14. Six of the villages lie along National Road 1D, which runs beside the Nam Ngiep. The two exceptions are Ban Nahong, which lies some 6 kilometres up a tributary of the Nam Ngiep, the Nam Thong, and Ban Phonhom which lies further uphill from Ban Nahong. The predominant settlement patterns are clusters, with nearly all the houses located near one another, stretching along the road.
15. Population in these villages has increased constantly over the last years. Some of these increases are related to village concentration policies by GoL. Ban Thaviengxay (renamed in 2011; previously called Ban Dong) doubled its population by integrating households from other communities as part of the GoL village consolidation program. Similarly, Ban Nakang, previously farther downstream, has been integrated into Ban Phonhom. The villages Viengthong, Nasay, and Xiengkhone also have received new households from elsewhere.
16. Together, these 8 villages have about 16,500 ha of land, of which 1,413.3 ha, or 8.5 per cent of the total, are considered privately (individually) held. Most are paddy fields or other permanent cultivated lands. 34.9 ha are residential lands. Public lands, or community property, account for 314.9 ha. Grasslands account for more than half of the public lands, while cemeteries cover 16.6 ha. The vast majority of lands, accounting for 14,767.2 ha, or 89.5 per cent of the total area, is classified as forest. Of the forest lands, community managed forests account for 6,592.0 ha and local protection forests cover 3,328.0 ha.

## 2.3 Zone 2 – Reservoir Area

17. Zone 2 covers the area affected by the 320m MSL reservoir and thus communities in zone 2

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<sup>4</sup> More direct impacts these communities experience from a second hydropower project upstream.

are directly affected by Land Acquisition and Resettlement (LAR). There are 2 sub-zones. The communities in the upper section of the reservoir, designated as Zone 2UR, will be impacted by partial inundation by the reservoir and 15 households will relocate within village boundaries, expected to be impacted according to the 2011 survey. Communities in the lower section of the reservoir, designated as Zone 2LR, will be completely inundated by the reservoir and so all residents will need to be resettled. The communities in sub-zone 2UR are part of Thathom District, while those in sub-zone 2LR in Hom District; thus both in Xaysomboun Province.

### 2.3.1 Upper reservoir area

18. In the Upper Reservoir Area (2UR) three (3) villages are located alongside the Nam Ngiep River and will be directly affected: Ban Pou, Ban Hatsamkhone, and Ban Piengta.<sup>5</sup> Ban Pou has two main parts; one is a cluster going north from the road into the hills, mainly populated by Hmong households, and the second part a linear settlement along both sides of the village street going from national road 1D toward the Nam Ngiep River, mainly populated by Lao Loum households. Ban Hatsamkhone tends to be more linear, with their houses stretched along both sides of 1D and a second line along a village road towards the Nam Ngiep. Ban Piengta has a main cluster and extending from that a stretch of houses along both sides of the road 1D.
19. Expected impacts to the area from the inundation of the reservoir at 320 m MSL are that 10 households in Ban Pou and 5 households in Hatsamkhone will need to be relocated to a higher elevation because their residential land will be flooded, and about 176 (including the 15 households losing houses) representing 54 per cent of the total households in these villages plus 2 households from a fourth village from Zone 1 with land in the upper reservoir area will lose some of their productive land to the reservoir and require compensation for their losses in kind (land-for-land) and in cash. In addition to compensation, residents of these communities will be provided training and resources under the livelihood promotion program and have access to improved social services and infrastructure provided by the Project as outlined in the REDP.
20. These three communities encompass according to a survey conducted in 2011 a total of 14,072.3 ha of land. 904.8 ha of which, or 6.4% of the total, are privately held. About a third of the privately held lands are paddy fields, a sixth is upland rice fields, and nearly half classified as other agricultural lands. Residential area accounts for 34.3 ha of privately held lands. 150.4 ha are considered public or community land, of which about a third is grazing

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<sup>5</sup> At the time of an early survey in 2007, a fourth village, Ban Nakang, was part of this zone, but as outlined above it was moved to Ban Phonhom (Zone 1) as part of the government policy to consolidate smaller communities into larger ones for easier provision of infrastructure and social services. It should be noted that this resettlement of Ban Nakang was planned and implemented separately from the Nam Ngiep 1 Hydropower Project, and that the village would have been moved even without NNPI.

area, more than half as unspecified land uses, and 7 ha as cemeteries. By far the largest amount of land in these communities, 13,017.1 ha, is classified as forest, accounting for nearly 93 per cent of the total area. Of this, about half, or 6,620.5 ha is local protection forest. Another 4,736 ha is community managed forest, and 1,610 ha is unstocked (or denuded) forest land.

### **2.3.2 Lower Reservoir Area**

21. The Lower Reservoir Area (2LR) covers the lower section of the 320m MSL reservoir, where 4 villages will be completely inundated: Ban Houaypamom, Ban Soppuane, Ban Namyouak, and Ban Sopyouak. Because of complete inundation of residential areas and main agricultural land, all 384 households (according to the 2011 survey) in these villages will have to be resettled and compensated for the loss of housing, residential land, productive lands, and other assets. They will also be provided with infrastructure, social services, and economic and social development programs, to assure that their standard of living is at least the same level as pre-project condition, if not better, and poor households are brought above the poverty line. Special provisions for vulnerable households will be put in place by the Project. Details are outlined in the REDP.
22. The settlement patterns of these four villages are similar. Each has a main cluster of houses, very dense in Ban Sopyouak and Ban Namyouak, with the rest of the households scattered near the villages, some in more linear pattern along the river or its tributaries, others spread out in the fields.
23. These four villages have a combined total of 7,508 ha of land, of which privately held lands account for about a third; or 2,736 ha. About 265 ha of this are paddy rice field, another 313 ha rotational upland rice area, and other cultivated areas account for 680 ha, and other land uses a considerable 1,432 ha. Residential areas use slightly more than 44 ha. Public or community lands account for about 278 ha, of which 263 ha are grazing lands and 10.5 ha are cemeteries. Lands classified as forests account for nearly 60 per cent of the total village areas, or 4,494 ha, of which the vast majority, 3,404 ha, are community managed forests. The remaining forest lands in these villages are unstocked (or denuded) forests (613 ha) and lands classified as buffer zones (477) between the villages and the forests.

### **2.4 Zone 3 – Construction Area**

24. This zone covers the area where the main components of the Project will be built. It includes the main dam, re-regulating dam, powerhouses, project office, camp site, storage areas, access roads, and the area between the main dam and the re-regulating dam that will be covered by the re-regulating dam reservoir. There is one (1) directly affected community in this zone, Hatsaykham Hamlet, which belongs administratively to Hat Gniun village (see Zone 5, host communities). Because of construction activities and the inundation of the re-regulation reservoir, all 33 households of this community will have to be resettled and compensated for their loss of housing, residential lands, productive lands, and other assets.

Early resettlement will avoid exposure to construction activities, of which just limited activities will be implemented before their resettlement. As with the villages in Zone 2LR, the people of Zone 3 will also be provided with infrastructure, social services, and economic and social development programs, to assure that their standard of living is at least maintained, if not better than pre-project condition, and that poor households are brought above the poverty level. Special provisions for vulnerable households will be put in place by the Project.

25. The settlement pattern of this community is linear, along the left bank of the Nam Ngiep River. Hatsaykham encompasses a total of 878 ha, of which 138.5 ha are privately held: about 34 ha is paddy land, another 60 ha upland rice fields, 38 ha other cultivated lands, while about 5.5 ha are residential lands. Another 68.9 ha are public or community lands: 67 ha are grass lands, and a cemetery encompasses 1.2 ha. The remaining area is classified as forest, most of which is under community management.

## ***2.5 Zone 4 - Downstream Area***

26. This zone covers the catchment area of the Nam Ngiep River downstream from the re-regulating dam, except from Ban Hat Gniun and Ban Thahuea, which are classified as host villages to the designated resettlement site in Houaysoup and separately assessed under a Zone 5 (see below). Additionally to these two villages, there are 9 villages downstream from the dam. Ban Somseun, Ban Nampa, and Ban Houykhoun lie around 30 km downstream from the main dam site and form part of Bolikhan District, Bolikhamxay Province. Ban Thong Noi, Ban Thong Yai, Ban Sanaxay, Ban Phonsy, Ban Pak Ngiep, and Ban Sanoudom belong to Pakxan District, Bolikhamxay Province. They lie between more than 30 to more than 40 km from the Dam Site.
27. Possible impacts to these 9 villages in Zone 4 are changes in water level of the Nam Ngiep River, changes in water temperature, possible erosion of the riverbank, and other changes in water quality. Because of mitigation measures already included in the design of the Project (i.e. water flow control via the re-regulation dam) and their distance from the dam, any such impacts are expected to be minimal or non-existent. Even so, these villages will be involved in monitoring of the water quality and flow, as well as in a fisheries co-management program to facilitate long-term sustainable supplies of fish and a water supply program to guarantee water supply for household use will be implemented. A total of 2,957 ha were recorded as lands of these 9 communities, of which 430 ha are privately held. Most of the privately held lands are paddy fields (228 ha, or 53 per cent of the private lands) or other agricultural lands (143 ha, or 33). Another 10 per cent, 42.8 ha, are residential areas. No public or community lands were recorded, though it should be noted that each of these communities has schools and other public buildings and facilities. All the remaining lands are community managed forests – 2,527 ha or 85 per cent of the total area.

## ***2.6 Zone 5 - Prospective Resettlement Areas and Host Villages***

28. Four sites were investigated by the Project, GoL, and PAPs as possible resettlement areas for the four villages in sub-zone 2LR and the one village in Zone 3. A fifth site was suggested by the PAPs but rejected by GoL due to security reasons. After numerous consultations and negotiations, a sixth option, the Houaysoup area in Bolikhan District, Bolikhamxay Province, on the opposite bank of the Nam Ngiep River from Ban Hat Gniun and immediately south of the re-regulation reservoir and dam, was suggested as resettlement area for the four villages from Zone 2LR and one village of Zone 3. Consequently, the province allocated this area of more than 6,000 ha on the right bank of the Nam Ngiep as the officially designated resettlement area. It gets its name from two tributaries to the Nam Ngiep, Houay Soup Gnai and Houay Soup Noi. The bigger of the two Houay Soup Rivers runs 8 km from the mountain slopes to the southwest of the resettlement site. The flatter lands along both banks of the Houay Soup River can be used for approximately 400 ha of irrigated paddy fields as well as upland rice fields, grassed areas, cash crops, and commercial tree plantations. Details are outlined in the REDP.
29. As the nearest villages to the resettlement site, Ban Hat Gniun and Ban Thahuea are considered host villages to the resettled communities. Located across the river and 7 respectively 10 kilometres distant from the construction site, they will be connected to the resettlement site via a bridge across the Nam Ngiep and an upgraded access road, which also extends southwards to the provincial capital. Furthermore, the new school building in the resettlement area will be available for students from Hat Gniun and Thahuea, as will the improved health facilities. The villages agree with the resettlement plan, expecting new livelihood opportunities through the Project. Considerable livelihood opportunities for Ban Hat Gniun have already arisen through employment of villagers on road construction, rental of land and property to contractors, and provision of livestock and agricultural products to the labour force. Regarding impacts, they state that the usage of common natural resources, i.e. fisheries and forests, can and has to be managed. As host communities, Ban Hat Gniun and Ban Thahuea will be provided with improved social services and with livelihood development programs under the Project. Some households of the host communities will be compensated for agricultural land they claim to use in the resettlement area. The asset registration will be implemented in a transparent way and villagers of the next downstream villages informed ahead, so that eventual new land claims can be registered. Current satellite images acquired by the Project show limited land use in Houaysoup for 2013/2014. As the villages closest downstream from the two dams, water quality near these two villages will also be closely monitored and provided with the same programs as Zone 4.

## ***2.7 Summary of Impacts and Necessary Mitigation Measures***

30. Summarizing, the areas that will be affected most significantly from the Project are Sub-Zone 2LR, the lower section of the main reservoir, and Zone 3; with minor or potential impacts in the other zones.
31. While upstream of the reservoir no major impact from the Project is expected, fisheries monitoring has to be carried out; impact, in the unlikely event of occurrence, would have a potential effect on nutrition and thus on health. Preventive health trainings will be implemented along the Health Action Plan outlined below.
32. The people in Sub-Zone 2UR, the upper section of the main reservoir, will also be affected by the Project, but less severely than those who will have to move to new sites. Compensation for lost residential and agricultural lands and livelihood programs will be implemented. The improvement of public infrastructure, including schools, market stalls, and bus stops will definitely positively but also potentially negatively impact gender, culture, and health relations; the latter additionally impacted by the reservoir and the usage of its resources. Relating project measures can be found in the gender, culture, and health action plans below.
33. The resettlement impact for villages of 2LR is major, with a broad range of impacts and mitigation measures from compensation and resettlement to livelihood restoration; all of which is covered by the REDP. The programs outlined below will complement all these measures regarding health, gender, youth, and culture. Only labour issues are less relevant, as resettlement will happen just at the end of the construction phase. The Labour Management Plan outlined below applies to people of 2LR employed by the Project.
34. Zone 3, Hatsaykham hamlet, will experience the longest duration of impact, with impacts ranging from Access Road Construction, the Dam Construction Phase before early resettlement, and finally resettlement itself. Details on all of these issues are outlined in the REDP, while all the Action Plans outlined below complement the Project mitigation measures. This encompasses with specific importance for Hatsaykham the social mitigation and management program as part of the PHAP/Chapter 4, which will address the impact from workers and camp followers influx into the area, affecting also the host communities of Zone 5, and according mitigation measures implemented by the Project; this program complements the overall Labour Management Plan outlined in Chapter 5.
35. For those in Zone 4, the downstream area, and Zone 1, the upstream area, no negative impacts by the Project are expected; minor, positive, impacts like the integration into the watershed management plan are expected. Nonetheless, precautionary measures for unexpected impacts on water changes in the river have been and will be taken, including the establishment of monitoring programs, fisheries co-management programs, and a water-supply program for downstream villages.
36. Those in Zone 5, Hat Gniun village and Thahuea village, located next to the resettlement area, will be affected as host communities, who will need to share some of their resources

with the new residents and experience impacts from the nearby construction site. They are also immediately downstream from the dam and any changes in water quality and water flow would likely have greater impact on these two communities than on any village in Zone 4. While LAR impacts are covered by the REDP, the different Action Plans below will address all of the other impacts outlined here.

37. Some households living along the Transmission Line and along the Access Road will also lose land or other assets for these project components, as indicated in the IEEs for these components of the project. However, project design has tried to minimize impacts and no significant involuntary resettlement impact is expected. LAR is also described in the Land Acquisition and Compensation Plan for Access Road. Once final alignments of the 230kV and 115kV Transmission Lines are concluded in mid-2014, LAR will also be addressed in the LACP for the Transmission Line. Safety issues will be addressed by the relevant ESMMP-CP6 documents, while gender issues are addressed in the LACPs as well as in the SDP.
38. For these as for any other areas it should again be remembered that impact mitigation measures of the Project are limited by scope and not by budget, which secures PAPs entitlements even if project dimensions change later on along mutual approval.

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<sup>6</sup> ESMMP-CP: Environment and Social Management and Monitoring Plan – Construction Phase

Project Area	REDP-covered Impacts	SDP-covered Impacts / Action Plans	Operational relevance	Target Groups	Themes
Upstream (Z1)	N/A	Health Gender	Low	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
Upper Reservoir Section (2UR)	LAR due to inundation, EDP	Health	Medium	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
		Gender		Women	Gender Mainstreaming, Schooling, Decision Making
		Youth		Youth	Schooling, income generation, preventive health
		Culture		Community	Local history, cultural artefacts
Lower Reservoir Section (2UR)	LAR due to inundation, EDP	Health	High	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
		Gender		Women	Gender Mainstreaming, Schooling, Decision Making
		Youth		Youth	Schooling, income generation, preventive health
		Culture		Community	Local history, cultural artefacts
Construction Area (Z3)	LAR due to inundation and project facilities, EDP	Health	High	Children and Students, Families, Mothers, Camp Followers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition, STD
		Gender		Women	Gender Mainstreaming, Schooling, Decision Making
		Youth		Youth	Schooling, income generation, preventive health
		Culture		Community	Local history, cultural artefacts
		Labour, Social Impact of Labour		Workers / Employees, Affected communities	Employment policy, skill training for locals, community management, workers / employees health; prevention of social disturbance

Project Area	REDP-covered Impacts	SDP-covered Impacts/ Action Plans	Operational relevance	Target Groups	Themes
Far Downstream (Z4)	N/A	Health	Low/Medium	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition; Water Supply Program
Host communities and resettlement site / near downstream (Z5)	LAR due to development of resettlement site, EDP	Health	High	Children and Students, Families, Mothers, Camp Followers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition, STD
		Gender		Women	Gender Mainstreaming, Schooling, Decision Making
		Youth		Youth	Schooling, income generation, preventive health
		Culture		Community	Local history, cultural artefacts
		Labour, Social Impact of Labour		Workers / Employees, Affected communities	Employment policy, skill training for locals, community management, workers / employees health; prevention of social disturbance
Access Road	LAR covered in LACP Access Road in details	Health	Medium	Community	Road Safety (see ESMMP-CP Access Road)
		Health	High	Labour/Community	Camp Follower / STD
		Gender	Medium	Women	Gender Mainstreaming, Decision Making
		Labour		Labour	Community management, workers / employees health
Transmission Line	LAR covered in LACP Transmission	Health	Medium	Community	Electricity-related safety (to be included in the ESMMP-CP Access Road)
		Gender		Women	Gender Mainstreaming, Decision Making
		Labour		Labour	Employment policy, skill training for locals, Community management, workers / employees health
Transmission Line	Line in details	Health	Medium	Community	Electricity-related safety (to be included in the ESMMP-CP Access Road)
		Gender		Women	Gender Mainstreaming, Decision Making

Table 3: REDP and SDP covered Project Impacts

## CHAPTER 3 - Institutional Arrangement

39. While it is the responsibility of the project owners and developers to mitigate any adverse social and environmental impacts and to assure that social conditions will enhance the lives and livelihoods of the people in the project area, including internal monitoring systems, it is also the task of provincial, district, and village authorities to be directly involved in implementing resettlement and environmental and social development programs in close consultation with the developer. External monitoring by MoNRE and Lenders will further support this process. This includes the public authorities' monitoring of the effectiveness of the mitigation measures, of public participation and involvement, and of the protection of rights and livelihoods of the people affected by the Project. Furthermore, to the extent possible, mitigation measures and development activities are to be carried out through or with the cooperation of the government at the local, district, provincial and national levels.
40. Institutional arrangements for NNP1 build upon existing institutional structures that have been established for hydropower projects in Laos, or respond to specific project needs concerning environment or social or economic issues. The institutional arrangements are intended to provide the means to implement the environmental and socioeconomic mitigation measures, development activities, and monitoring effectively, while also building the capacity of local residents, administrative organizations, and government agencies. Vientiane and Xieng Khouang provinces have experience of hydropower projects being constructed in their districts, but none to current international safeguards standards. Part of this staff will work in the newly, re-founded Xaysomboun Province as well. Bolikhamxay has experience of Nam Theun 2 in Khamkeut district, but not on a day-to-day program implementation basis. EDL has experience of working with ADB to international safeguards standards for transmission lines and the Nabong sub-station. As of 1st January 2014, the Project is implemented in Xaysomboun and Bolikhamxay provinces, and representatives of both provincial authorities are included in both decision-making as well as day-to-day implementation, structures.
41. NNP1 implementation arrangements are set up in such a way as to facilitate a process of addressing the concerns and needs of the main stakeholders – the PAPs, the project owners and developers, and the government – and to provide a framework for the participation of PAPs, for the resolution of any grievances that may arise, and for the involvement of any other project stakeholders in the process.
42. The roles of GoL at national level will be facilitated through the Joint Steering Committee (JSC) and the Ministry of Natural Resources and Environment (MONRE) as the primary supervisory and monitoring bodies. A Secretariat of the JSC will include key government agencies and organizations involved in the environmental and social components of the Project, specifically the Department of Environmental and Social Impact Assessment (DESIA) of MONRE, the Department of Energy Promotion and Development (DEPD) of the Ministry of Energy and Mines, and the Resettlement Management Unit (RMU) established

for this project.

43. An Environmental Management Unit (EMU) will be established in MONRE to oversee monitoring of the Project from an environmental perspective.
44. A Provincial Resettlement and Livelihood Restoration Committee (PRLRC) has been established as the lead authority to approve project-related policies and plans, entitlements consistent with the CA, and project activities; supervising and monitoring the implementation of social measures, including resettlement; and to provide the mechanism for public involvement, for decisions on compensation, and for the expression and resolution of grievances. Due to the specifics of the Project, i.e. its activities and impacts in two provinces, the NNP1 PRLRC encompasses representatives of both provinces under the Chairmanship of the Governor of Xaysomboune Province.
45. A Resettlement Management Unit (RMU) has been established by the PRLRC to coordinate the day-to-day work of the government in resettling the most severely affected people in the project area, together with the technical assistance, financial support, and related work of NNP1PC through the Project's Environment and Social Division. As with the PRLRC, both project provinces have been integrated with RMU representatives based in Pakxan for Bolikhamxay and in Anouvong town for Xaysomboun. Both report to the PRLRC. RMU and PRLRC are thereby not just the first institutions the Project can refer to for Land Acquisition and Resettlement topics, but as well for all other social issues the Project addresses.
46. At the project level, the project owner has established an Environment and Social Division (ESD), responsible for implementing the relevant programs for the implementation of the mitigation measures. An Environmental Management Office (EMO) in the ESD will be responsible for environmental mitigation measures and monitoring, while a Social Management Office (SMO) is responsible for social and economic mitigation measures and monitoring, including cooperation with the RMU on the resettlement process. The SMO encompasses several units: a resettlement and livelihood restoration section for the lower reservoir and resettlement site; a livelihood restoration section for the upper reservoir area; and geographically cross-cutting a social development section, an information-analysis-and-documentation section, and a monitoring section.
47. The overall framework of GoL-Project-cooperation is shown in Figure 2. This framework is indicative and might be modified during the implementation phase as agreed between the parties, while the detailed structure of SMO is outlined in Figure 3.
48. Each Action Plan outlined below will describe in more details how these and any other relevant institutions will be included for a cooperative approach on mitigation measures.

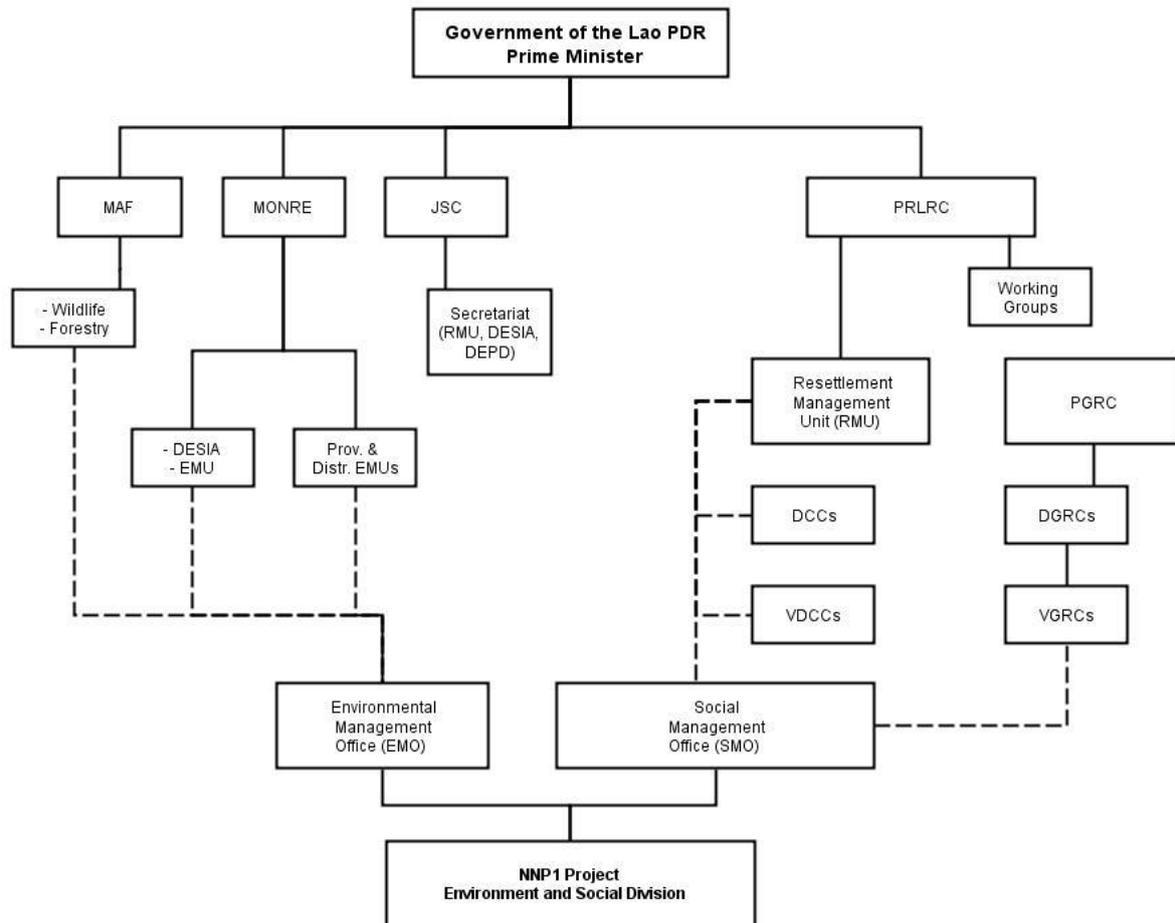


Figure 2: Institutional Arrangements for the NNP1 Project

### 3.1 Government Institutional Arrangements for the Project

49. GoL has established the national level organizations responsible for setting policy and directions, for supervising and monitoring NNP1. The project provides additional resources so that these organizations can provide efficient and effective support to the implementation and monitoring of the mitigation measures and development programs under the Project.

#### 3.1.1 Joint Steering Committee and Environmental Management Unit

50. The Nam Ngiep 1 Project Joint Steering Committee (JSC) has been established by GoL to serve as a task force for the implementation of the NNP1 Project. It is attached to the Department of Energy Promotion and Development under the Ministry of Energy and Mines (MEM). Other members include representatives from MONRE and the Resettlement Management Unit of the Project. The JSC will lead GoL's public relations work and disclosure for the Project; provide GoL engineering staff and facilitate their work; coordinate with GoL project units and various government entities at national, provincial, and district levels; and monitor progress of the Project.

51. The Environmental Management Unit (EMU) has been established by MONRE to monitor the environmental components and mitigation measures of the Project and is described in details in the EIA and here just included for reasons of comprehensiveness.

### **3.1.2 Provincial Resettlement and Livelihood Restoration Committee**

52. GoL has established a Provincial Resettlement and Livelihood Restoration Committee (PRLRC) to oversee and monitor the planning and implementation of resettlement, compensation, livelihood restoration, and other social development activities of the Project according to the provisions in the CA, Annex C, Appendix 5. The PRLRC has established the Resettlement Management Unit (RMU), the District Coordination Committees (DCC), and the Provincial, District, and Village Grievance Redress Committees (PRGC, DGRC, VGRC); and will supervise and instruct the RMU, the DCCs, and the Village Development Coordination Committees (VDCs) concerning the implementation of the resettlement, compensation, livelihood restoration, and other social measures. The VDCs will be established by the DCC. The PRLRC, now chaired by the Governor of Xaysomboun, will be responsible for these activities in all areas affected by the Project, and will work closely with the Environment and Social Division of the Project.
53. Other members of the PRLRC are District Heads of all the Districts affected by the Project, Directors of the relevant Provincial government offices, and a representative from the Lao Front for National Reconstruction. The Head of the RMU will serve as Secretary to the Committee.
54. As outlined above and to repeat here, the PRLRC and the RMU described below are involved in all activities with social aspects the Project is linked with, and not just Land Acquisition and Resettlement topics.

### **3.1.3 Resettlement Management Unit**

55. A Resettlement Management Unit (RMU) has been established by and serves under the direction of the PRLRC, consisting of officials seconded from relevant GoL agencies or personnel hired directly by the RMU. The RMU administers the resettlement, compensation, livelihood restoration, and other social development activities of the Project and ensure participation of all relevant GoL agencies in these activities. A list of according activities has been outlined in the CA, Annex C, Appendix 5. The RMU works in coordination with the Social Management Office (SMO) of the Project. The RMU and SMO will have, according to the CA, its office in a District in each of the Xaysomboun and Bolikhamxay Provinces to be determined by the PRLRC.
56. The RMU will be headed by a Manager, who will have first-hand experience with resettlement, compensation and rural development issues. Two RMU Co-Coordiators shall be senior qualified officials, one from each Province (Bolikhamxay, Xaysomboun), with first-hand experience with resettlement, compensation and rural development issues, and selected from GoL line agencies at the provincial level, to work under the direction of the RMU Manager and coordinate the implementation of the social measures in their respective provinces. RMU Members will be selected from GoL line agencies at the provincial level,

with other technical staff contracted to assist as needed with the implementation of the social measures.

### **3.1.4 District Coordination Committees**

57. The PRLRC will establish District Coordination Committees (DCC) on recommendation of the RMU in districts affected by the Project. The DCCs will work under the supervision of the PRLRC and the RMU, and in cooperation with the SMO. The DCCs will help implement the various registration surveys, resettlement, compensation, livelihood restoration, and other social development works of the Project. This will also include the construction or provision of roads, buildings, rural electrification, bridges, water supply, and other infrastructure projects related to resettlement and livelihood restoration works; provision of health services, education, occupational training, and other social development programs; agricultural development programs; and cultural and ethnic minority programs. Furthermore, the DCC will participate in the grievance redress processes.
58. The DCCs will consist of the District Governor, as Chairperson, and representatives from the District Natural Resources and Environment Office, the District Public Works and Transportation Office, the District Agriculture and Forestry Office (DAFO), the District Health Office, the District Education Office, the District Information, Culture and Tourism Office, the District Labour and Social Welfare Office, Police, Militia and Army, the Lao Youth Union, the Lao Women Union (LWU), Lao Front for National Construction (LFNC), and other contract staffs required.

### **3.1.5 Village Development Coordination Committees**

59. The DCCs will establish Village Development Coordination Committees (VDC) as necessary in those villages affected by the Project. With the support of the SMO and DCCs, the VDCs shall be the implementing body for the management and implementation of the resettlement, livelihood restoration, and other social development works and activities. The VDCs are expected to represent the villagers in the affected areas, and to voice their concerns and assure their needs are met.
60. The VDCs will consist of the Head of the Village as Leader of the committee, and village authorities (Mass organizations, public security, defence, etc.), village elder representatives (Naew-Hom), Lao Women's Union representatives, other skilled members of the community, representatives of all ethnic groups, and representatives of all vulnerable groups, as members.

## ***3.2 Overall Project Institutional Arrangements***

### **3.2.1 Environment and Social Division**

61. NNP1PC has established an Environment and Social Division (ESD) of the Project. The ESD consists of an Environmental Management Office (EMO) to enable the Project to meet all its

environmental obligations, and a Social Management Office (SMO) to enable the Project to meet all of its social obligations, including resettlement, compensation, livelihood restoration, and other social development works. These are all to be carried out in close cooperation and in coordination with the relevant government organizations set up to implement environmental and social aspects of the Project, such as the EMU, the PRLRC, the RMU, the DCCs and the VDCs, and government agencies responsible for various works as described above.

62. Among the ESD's responsibilities will be:

- Manage the environmental, social, labour, economic, and resettlement components;
- Monitor and report to the developer on the effectiveness of implementation of the mitigation measures, social development activities, and resettlement program; and
- Coordinate activities during construction and after construction with relevant government agencies, with the aim of improving the environmental performance of the project during its operating phase.

63. The ESD will act as the first point of contact for the EMU and other offices of MONRE and the RMU and indirectly (through the EMU and MONRE) for all other government agencies or offices, corporations, or NGOs involved in the mitigation of environmental, social, and economic impacts of the Project and/or sustainable economic and social development of the people affected by the NNP1 Project. The ESD will be the main contact between the Project and the projected affected people.

64. The ESD will be responsible on the Developer's side for handling all complaints and grievances that may arise in the course of the implementation of the Environmental Management Plan, the Social Development Plan, and/or the Resettlement and Ethnic Development Plan, and will endeavour to resolve the problems with the offended parties as well as the Grievance Redress institutions along the Grievance Redress Mechanism outlined below.

65. An ESD Deputy Managing Director (DMD) heads the ESD on a full time basis. He or she will closely work with the SMO and EMO Managers, who are responsible for the work of their respective units. The DMD reports directly to the project's Managing Director. His or her role will be to ensure that the mitigation and monitoring measures are implemented according to agreed plans, and that the applicable standards in the schedules of the EMP, SDP, and REDP and those 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 NNP1PC Managing Director by the DMD.

66. Further duties of the DMD are:

- Coordination, supervision, monitoring and reporting on activities undertaken in the EMP, SDP and REDP
- Liaising between the Managing Director, SMO and EMO Manager, the Government Agencies, and the contractors for implementation of E&S requirements, and

concerned or contracted NGOs.

- Supervising and monitoring, together with the managers of SMO and EMO, field activities of ESD staff in relation to implementing the EMP, SDP and REDP.
- Supervising specific routine technical tasks of the ESD such as water quality monitoring
- Reporting to the Managing Director.

67. To implement these tasks, the DMD will be aided by full and part time national and international staff and consultants in SMO and EMO; as well as by GoL Relations officers and an ESD administration support.

### **3.2.2 Environmental Management Office**

68. Major tasks of the Environmental Management Office's (EMO), mentioned here for reasons of comprehensiveness and described in details in the environmental documents, are to collect all the baseline data and information and conduct subsequent monitoring of all aspects of the environment that could be affected by the Project, such as fish and other aquatic resources, hydrology, water quality, river bank erosion, forest cover, etc., and implement the mitigation measures in the EMP.

69. Thereby, monitoring environmental indicators in the project area is one task, while monitoring of construction is another. The later includes the preparation of detailed plans with the contractors on the management and mitigation of environmental aspects of different construction sites, including access roads and transmission lines, ensuring the contractors provide adequate environmental facilities and management for the work sites, and monitoring safety of the workers in the work sites; the latter links to activities of the SMO.

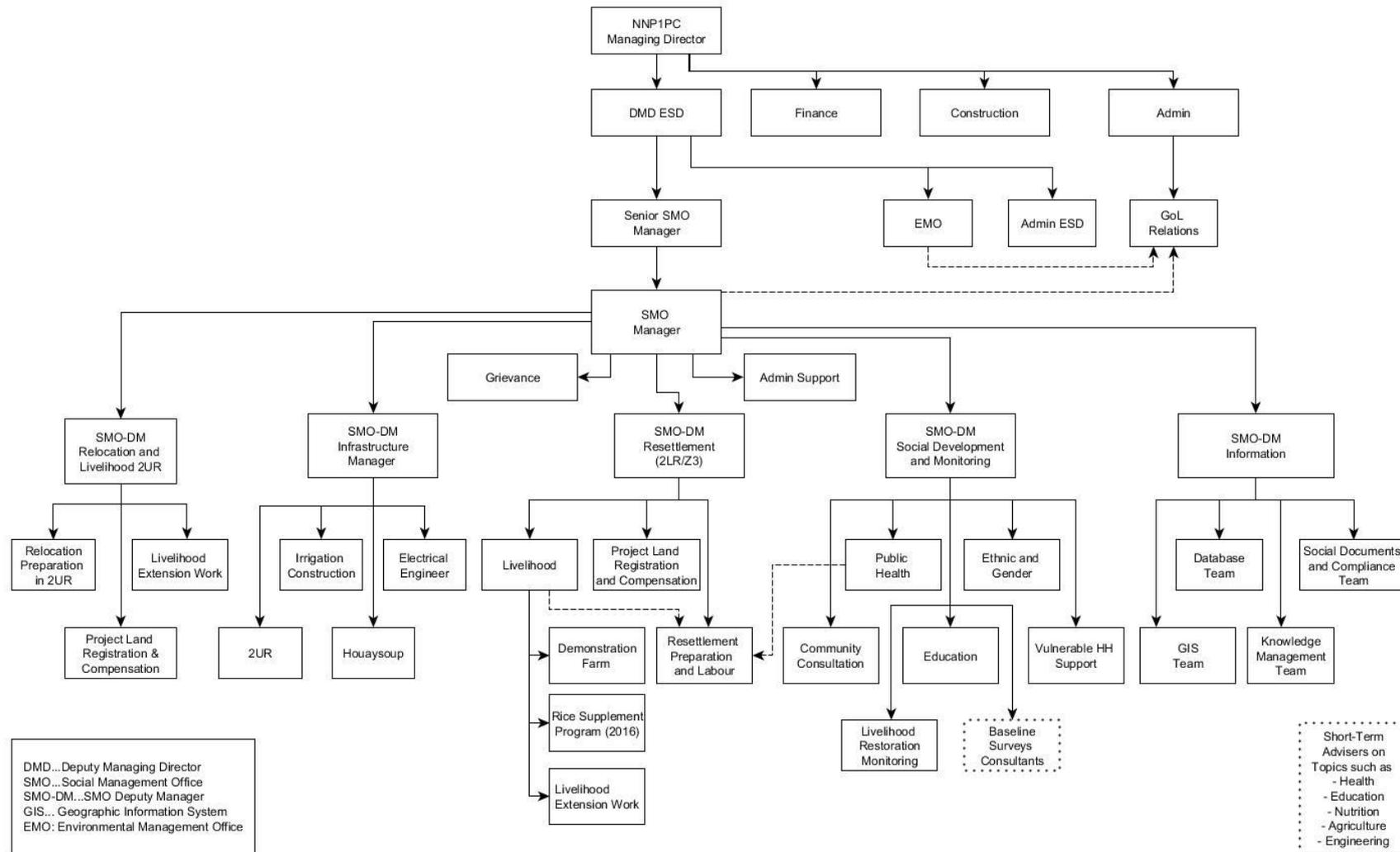


Figure 3: ESD – Organizational Structure with Focus on Social Impacts and Mitigation Measures

**Remark:** All teams will get inputs from and work together with relevant GoL national, district, and village institutions to achieve the set targets.

This chart is still in progress and has not yet officially been approved by the Board of Director and is still susceptible to minor changes.

### **3.3 Social Management Office**

70. The social aspects of the Project will be planned, implemented, and monitored by the Social Management Office together with PAPs and GoL authorities. It encompasses a resettlement section for the resettlement of villages in the lower reservoir area; a livelihood restoration section for the upper reservoir area; an infrastructure section; a social development section; a social monitoring section; and an information, analysis, and documentation section.

#### **3.3.1 Infrastructure Section**

71. The Infrastructure section will work with the RMU to provide technical and financial assistance in all infrastructure development related to compensation and mitigation measures for host and affected people, including infrastructure for the provision of all livelihood planning and programs and technical advice for the implementation and monitoring of the relocation process for households to the new resettlement area.

72. The Unit will be headed by a Deputy SMO Manager with proven infrastructure development experience, who will report directly to the SMO Manager, and work closely with the RMU and other GoL support staff (see below).

73. The tasks of the team in the Infrastructure Section will be as follows:

- Coordinate with the RMU on infrastructure issues
- Ensure access to new sites/adjacent villages through the construction of new bridges and roads; and rehabilitation or upgrading of existing transportation facilities
- Develop low land paddy fields with well-organized irrigation systems and non-acid soil
- 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, water is available when appropriate, and operational at new sites
- Ensure that housing and other relevant structures are constructed at the resettlement site and for villages with relocation inside village boundaries; and that community and service buildings for resettled people are constructed or rehabilitated
- Ensure that the resettlement site has reliable electricity supplies and is linked to the Lao grid in accordance with GoL planning

#### **3.3.2 Resettlement Section**

74. The Resettlement section will work with the RMU to prepare compensation and resettlement to the new resettlement site, to organize the resettlement process itself, and to provide all resettlement-related livelihood programs. Together with the RMU, it will carry primary responsibility for livelihood restoration and improvement for affected villages in Bolikhamxay. In addition, it will coordinate with the RMU in all compensation and

relocation issues related to Project Construction Lands in Bolikhamxay Province, and for those PAPs opting to remain within affected districts of Bolikhan (Bolikhamxay), Thathom and Hom (Xaysomboun), who will continue to be eligible for livelihood support as part of the total compensation package.

75. The section is headed by a Deputy Manager with proven resettlement implementation experience, who reports directly to the SMO Manager, and works closely with the RMU and other GoL staff. The section includes a livelihood team, a project lands and compensation team, a resettlement preparation team, a site preparation team, and a camp followers team. The teams may be split to provide the necessary field support in both Project-affected provinces.
76. The activities of the resettlement section encompass all activities to implement a successful resettlement of people from 2LR and Z3 to the Houaysoup resettlement site, to effect resettlement within village boundaries in 2UR, to provide pre- and post-impacts livelihoods support, and to ensure cooperation with host communities including but not limited to:
- Coordinate with the RMU on resettlement and compensation issues
  - Ensure establishment of necessary baseline information
  - Prepare all logistical arrangements for resettlement and compensation
  - Coordinate resettlement preparation together with the resettlement infrastructure team, including the development of residential and agricultural areas as well as the preparation of public infrastructure
  - Restore and enhance Resettlers livelihoods
  - Further tasks of every team of the resettlement section as outlined below

### 3.3.2.1 Livelihood Team

77. The Livelihood Team coordinates with the RMU and the Resettlement Team to develop suitable agricultural systems and carries out extension and technical support work to ensure food security and income targets for resettled people and villagers in eligible villages, in line with entitlements outlined in zone-specific entitlement matrices (see REDP). Core tasks are:
- Support of agricultural activity development
  - Ensure sustainable livestock and aquaculture development for all households (resettled people and adjacent population) by training and coaching
  - Support of GoL veterinary and agricultural extension services
  - 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, and through clarifying rights and responsibilities over different land zone areas
  - Investigate markets and marketing-chains for agricultural produce and forge links with middlemen and cash crop companies

- Facilitate the implementation of savings and credit schemes.
- Assist villagers in developing off-farm livelihood alternatives including handicraft and small-scale business opportunities and identify market channels
- Together with the Monitoring Section, monitor livelihood development until income targets are reached and sustained

### 3.3.2.2 Project Lands and Compensation Team

78. The Project Lands and Compensation Team has the task to:

- Consult with the PAPs on impacts and the process of land acquisition and compensation
- Coordinate with the RMU to register the assets lost due to construction activities in Project Construction Lands as well as the assets lost to acquire resettlement and relocation sites
- Prepare all necessary papers to document the asset registration and the agreements with the PAPs
- Coordinate with the RMU to undertake cash compensation to entitled PAPs via Bank Accounts

### 3.3.2.3 Resettlement Preparation and Labour Team

79. Resettlement Preparation and Labour Team includes the resettlement preparation unit and the labour unit.

80. The Resettlement Preparation Unit has the following tasks::

- Liaise with the Social Development Section in carrying out resettlement preparation activities for the PAPs who have to resettle, including adult education, vulnerable households preparation, resettlement information and consultation
- Liaise with Livelihood Section to ensure PAPs benefit from early livelihood activities, where required
- Coordinate with the Site Preparation Team for the resettlement process
- Finally integrate with the site preparation team into the livelihood team
- Liaise with Infrastructure Section to ensure all infrastructures are in place for villagers who have to resettle from Project Construction Lands areas
- Implement all activities at the demonstration farm to develop necessary expertise for farming at the resettlement site
- Coordinate with the Resettlement Preparation Team for the resettlement process
- Support DCC and VDC in setting up protocols for camp followers
- Support GoL authorities in monitoring and controlling camp followers activities
- Support the Social Development section in supporting respective teams in all issues relating to camp followers
- Coordinate with the host communities to facilitate a successful transition period

81. The Labour Unit has the following tasks:

- Coordinate with other members of the CCC to ensure the implementation of the Labour Management Plan
- Support PAPs if they would like to work for the Project
- Coordinate with livelihood activities teams regarding employment trainings and opportunities
- Initiate and facilitate necessary awareness programs
- Conduct site inspections together with EMO to ensure
- Monitors employment targets and recruitment, wages and benefits in coordination with the monitoring team
- Provide a contact persons for worker's grievances directed towards the CCC
- Coordinate support for the Lao Labour Union
- Coordinate with Lao Labour Union if they request for conflict resolution

### **3.3.1 Social Development and Monitoring Section**

82. The Social Development and Monitoring Section is considered a cross-cutting section which works in all project zones. Accordingly, most of the staff of the Social Development and Monitoring Section will be moving between the different field offices, depending on the tasks needed to be implemented at that point of time.

83. The Social Development and Monitoring (SD) Section will have 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.

84. The Section will be headed by an experienced Deputy Manager with proven social mitigation and development project experience, who will report directly to the SMO Manager and work closely with the relevant GoL agencies and staff. The SD section will seek intermittent input from an Ethnicity 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 SD section will also ensure that the needs of vulnerable groups are addressed.

85. The main tasks of the four teams in the Social Development and Monitoring Section will consist of the following:

#### **3.3.1.1 Community Consultation and Development Team**

86. The Community Consultation and Development Team has the following tasks:

- 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.

### 3.3.1.2 Health Team

87. The Health Team has the following tasks:

- 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 Ministry of Health (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 monitoring 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, and potential risks of STD/HIV/AIDS and other communicable diseases.
- 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.

### 3.3.1.3 Education Team

88. The Education Team has the following tasks:

- 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
- Implement the Project's scholarship program

#### 3.3.1.4 Ethnic and Gender Team

89. The Ethnic and Gender Team has the following tasks:

- Ensure ethnic-sensitive planning and implementation by advising and controlling all other project activities
- Implement programs outlined in the Ethnic Development Plan including cultural awareness programs
- Ensure gender-mainstreaming by advising and implementing all other project activities to mainstream measures that will provide opportunities and/or empower women
- Assist the health team regarding different aspects of women's health
- Implement programs outlined in the Gender Action Plan

#### 3.3.1.5 Vulnerable Household Support Team

90. The Vulnerable Household Support Team has the following tasks:

- Ensure vulnerable household-sensitive planning and implementation by advising and controlling all other project activities; and
- Implement vulnerable household support programs, including the extension of transitional assistance.

#### 3.3.1.6 Social Monitoring Team

91. 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 Development Plan as well as Livelihood Restoration Programs to evolve as needed. Monitoring provides the mechanism by which to do this. Monitoring and evaluation will occur as part of the overall Monitoring and Evaluation Plan. Participatory self-monitoring by affected people will be essential to accurate monitoring. 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 with support by the monitoring team.

92. Taken together, the Social Monitoring Team has two main tasks: the first is to coordinate the establishment of baseline surveys in cooperation with the social development teams regarding a range of indicators, including social, socioeconomic, and health data. Throughout the following years, the section will then use this baseline data in monitoring the development of the impacted communities along the assessed indicators and propose adaptations to the other sections to fulfil livelihood restoration targets. Also, the Social Monitoring Section will work as SMO representative in the Project's Contractor Compliance Committee (CCC), the joint committee encompassing all divisions of the Company (see section on contractors).

93. The Monitoring Team will thereby include the following specialists full time or part time:
- i. 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.
  - ii. 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.
  - iii. 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 will have an equal gender mix and local language skills.
  - iv. 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.

### **3.3.2 Information, Analysis, and Documentation Section**

94. The Information, Analysis, and Documentation Section is a cross-cutting section, cooperating with all other sections in collecting data, managing its storage, analyse data and provide resulting information back to the other sections. This data will be used, too, to compile the social planning and reporting documents, thereby analysing compliance with national and international standards and providing advice to the SMO management team for a decisive analysis. The section will furthermore store all information and documentation along data and document security system. Particular attention will be paid to ensuring all data gathered and entered in the Project database, is gender disaggregated.

#### **3.3.2.1 Database Team**

95. The database team has the following tasks:

- Operation of a database server system
- Operation of an ICT data management system
- Development of Databases: Census, Asset Registration Access Road, Asset registration 2UR, Asset registration 2LR, Asset registration Houaysoup, Socioeconomic Survey Access Road, Broad Socioeconomic Survey, Health Survey, Grievances, Other DB as necessary

#### **3.3.2.2 Knowledge Management Team**

96. The knowledge management team has the following tasks:

- Establishment of a conceptual knowledge management system for SMO
- Implementation as an ICT-based knowledge management system for SMO accordingly
- Processing of field reports and other internal information qualitative information as requested
- Monitoring of the knowledge management system for SMO
- Analysis of data and provision of results to other sections
- Preparation of lessons-learned/best practices reports and tool-kits

### 3.3.2.3 GIS Team

97. The GIS team has the following tasks:

- Production of general maps of the project area, activity locations and facilities made available upon request
- Production of detailed Asset registration information available in a GIS system, for impact analysis and compensation procedures
- Production of Land Use and Participatory Land Use Planning (PLUP) tools available for the resettlement area and 2UR and analysis of activities above full supply level in 2LR, based on national PLUP guidelines and prior experience in other hydropower projects
- Production of economic, poverty, vulnerability, livelihood and agricultural productivity and other social mapping

### 3.3.2.4 Social Documents and Compliance Team

98. The social documents and compliance team has the following tasks:

- Documentation of compliance-related activities
- Checks compliance of activities related to social standards (Lao, Lenders, International)
- Cooperation with Monitoring Unit on Compliance Data Collection
- Regular data analysis to check on compliance inconsistencies
- Provision of information to and accompaniment of monitoring missions
- Provision of compliance reports
- Completion and regular updates of Social Reports as required by the CA and International Financing Institutions
- Facilitation of the preparation of Action Plans

## 3.4 External Auditor

99. External monitoring is conducted by experts who are highly experienced and are not involved directly in any work of the Project. The experts will have extensive experience with the social issues in the area and familiar with the local language and socio-economic conditions. Three institutions will form the main agencies of external monitoring: the

Independent Advisory Panel (IAP), the Independent Monitoring Agency, and the Lender's Technical Advisors (LTA). Further external monitoring will be done by agencies not directly integrated into the Project's organizational structure, i.e. national and international media and non-governmental organizations, for which the Project will disclose information in an open and transparent way as outlined in the SIA, following national and international communication standards.

#### 3.4.1.1 Independent Advisory Panel (IAP)

100. For projects that are deemed by ADB to be highly complex and sensitive, as NNP1, ADB requires the client to engage an independent advisory panel during project preparation and implementation as outlined above. The NNP1 IAP was formed in 2013 and includes four international experts with high reputation and knowledge on their specific field of expertise, which regularly assess the development of the Project regarding environmental and social concerns and advise the Project on possibilities of improvement. On social side, one member of the IAP is an international expert in Involuntary Resettlement with decades of working experience in Laos and with international development institutions; and a second member is a Hmong expert on Indigenous People.
101. The IAP will meet at least three times during the project design, pre-construction and construction phase and twice annually thereafter. Visits to the project area will be arranged at the IAP's request, including field visits. IAP members will be supplied with complete sets of documents before field visits and will be briefed in Vientiane. The IAP would normally visit the greater project area and the project proponents for a week or two.
102. After each meeting the IAP provides the Sponsors, GoL, and ADB with a signed copy of its findings and recommendations before departure. For social issues, ADB requires that the IAP review issues of Involuntary Resettlement and Indigenous Peoples and social documents to address them; and, if necessary, recommend changes in project design to comply with the SR2 on Involuntary Resettlement and SR3 on Indigenous Peoples. In addition, the IAP will also review issues and concerns related to women and other vulnerable groups and propose measures to address them. This would include, but would not be limited to:
  - i. Resettlement: Assess whether resettlement has been minimized, whether sufficient preparation has been undertaken for restoration of income and living standards of the affected peoples; and review the timetable, budget and institutional capacity to implement resettlement. And also assess the adequacy of the resettlement sites and determine the need for Broad Community Support (BCS).
  - ii. Indigenous Peoples: Review whether Indigenous Peoples have security of tenure over forest and forest products, whether the Resettlement and Ethnic Development Plan (REDP) are culturally appropriate, if cultural heritage requires protection and establish that meaningful consultation has taken place. And also assess the adequacy of the resettlement sites and determine the need for BCS.

- iii. Other social plans: Review measures to protect and improve the socio-economic conditions of the project affected people and make recommendations as appropriate.

#### **3.4.1.2 Independent Monitoring Agency (IMA)**

103. Meanwhile, the Independent Monitoring Agency extends its tasks not just to monitor the Project, but above all train and enhance MONRE's monitoring capabilities. Its role is defined in the Concession Agreement, outlining that the IMA has to encompass experts with international experience in resettlement implementation, social surveys, social auditing and monitoring on projects of a similar scope and size as the Project. The independent Monitoring Agency shall also be responsible for training GoL staff in monitoring methodologies. Thus, the IMA is able to facilitate a better monitoring of the Project from government side, which can combine local knowledge, expertise on national regulations, and the enhanced monitoring skills. The Independent Monitoring Agency is thereby under the direction and supervision of GoL.
104. The Company and the GoL shall provide the Independent Monitoring Agency with all relevant and all reasonably requested data and documentation in order to facilitate the effective monitoring and evaluation of the environmental issues and / or social issues, as applicable. This includes information on the implementation of socio-economic and asset surveys as well as data on income targets benchmarks. The independent Monitoring Agency's monitoring reports will be disclosed in accordance with the Concession Agreement, Annex C, Clause 17. Currently, the IMA is recruited by MoNRE and a TOR elaborated with support by the Project. Information will be included in the updated documents, once finalized.

#### **3.4.1.3 The Lenders Technical Advisor**

105. Finally, the Lenders Technical Advisor (LTA) will monitor the Project regularly for providing information to the lenders in the latter's interests. It reports to the lenders via a lenders' representative, to which the reports are directed. Accordingly, LTA contracts are signed between a representative of the Project, a representative of the lenders, and a representative of the LTA.
106. While the other two external monitoring institutions solely focus on monitoring of the environmental and social aspects of the Project, the LTA will also monitor financial and technical matters. International Experts in their respective fields will regularly visit the Project and inspect plans and implementation along report analysis and project site visits. A specific characteristic of the LTA's terms of reference is that they can issue non-compliance warnings, ranging over several steps from minor compliance problems up to incidences demanding immediate attention.

### ***3.5 Other Partner Organizations***

107. While the Company will establish strong expertise in-house as outlined above, it will rely on external assistance for specific topics – from nutrition advice, to PLUP planning, to

establishment of independent market price analyses. Thereby, it will work together with either single national and international expert consultants or with respective, high-reputational institutions. These can encompass civil society organizations, universities, and research centres, depending on the expertise available. This allows the Project to make use of knowledge, but as well to link the activities of the Project to the wider context of development in Lao PDR.

108. Several civil society organizations have already expressed their interest to work together in implementing common aims. It is thereby understood, that there are different interests involved in this process, with different institutional structures, weaknesses and strengths. However, when properly managed in a transparent way, the Project is convinced that it can become successful for all stakeholders involved.
109. A first, major step is the integration of civil society organizations into the Broad Stakeholder Forum, taking place in Vientiane and Pakxan in early May 2014. Comments and suggestions will be taken by the Project and integrated into the social documents. Following up from this first meeting, institutions and Project can assess the different areas where cooperation is feasible and promising.

### ***3.6 Construction Contractors and Subcontractors***

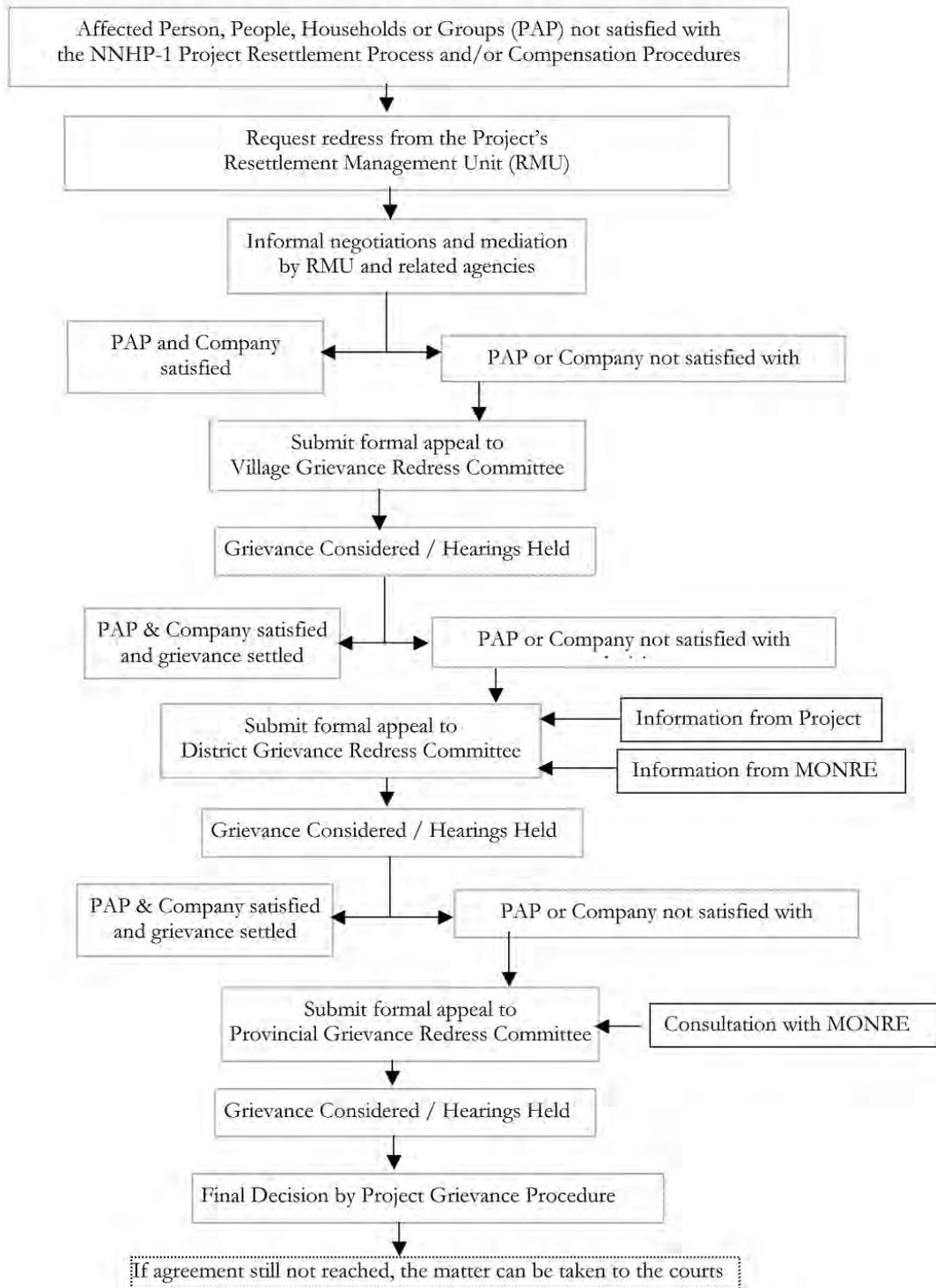
110. Certain mitigation measures related to labour and environment will be implemented by the contractors and/or subcontractors. Day to day supervision of the contractors/subcontractors is part of construction supervision to be carried out by supervision and safety engineers. Ensuring compliance with environment, health, safety and social standards is the responsibility of the ESD. Thereby, the Project uses a respective joint Contractor Compliance Committee (CCC) involving staff from all divisions of NNP1PC: SMO, EMO, Civils, HR, and Procurement with SMO taking the lead in coordinating CCCs activities. Details regarding the responsibilities of the different parties are outlined in the Labour Management Plan in Chapter 5, with the tasks of the SMO Labour Unit described above.
111. This Committee will monitor and evaluate the contractors and subcontractors' compliance with environmental, labour, and social components. This monitoring can include unannounced checks and site-visits to assure compliance. Non-compliance with national laws and international commitments and standards regarding environment, health, safety, labour employment, and social standards will have consequences for the contractors' and subcontractors' overall contract-situation with the Project and not just towards ESD. Thus, cooperation with this Committee will be a mutual interest between all involved parties.
112. The bidding packages for the civil works contracts (including the contracts for the access roads and transmission lines) will include clauses covering resettlement and other social mitigation measures such as
  - The contractor and subcontractors shall preferentially hire skilled and unskilled labour from local communities.

- The contractor shall avoid placing fill or spoil on agricultural, cultivated or productive land.
- Consultation must be undertaken with village administration regarding the placement of fill and spoil within village boundaries;
- The contractor shall avoid using agricultural, cultivated or productive land for borrow or cut. Consultation must be undertaken with Village Administration regarding the location of borrow pits or areas of cut within village boundaries;
- The contractor shall assist with the clearance and preparation of replacement land, as identified in consultation with the affected communities and recorded in the updated resettlement plan;
- The contractor shall replace or restore any damages caused to land or structures (including irrigation channels and ditches and other community property resources) to the satisfaction of the PAPs and village administration. If land or structures cannot be restored to their original condition, the contractor must compensate the AP according to the compensation and replacement rates identified in the resettlement plan and finalized during the process of detailed measurement survey and updating resettlement costs; and
- All resettlement activities will be coordinated with the civil works schedule.
- The contractors and subcontractors have to comply with all social and environmental standards the Project agreed to follow
- The contractors' and subcontractors' employees have to comply with these safeguards and the contractors and subcontractors are reliable to establish a system to contain illegal behaviour.
- The contractors and subcontractors shall comply with the national labour laws and shall take measures to comply with the relevant International core labour standards.
- Disputes between workers and local villagers will be solved via the Grievance Redress Mechanism outlined in the next section

### ***3.7 Grievance Redress Committee***

113. The PRLRC in consultation with appropriate authorities has established the Grievance Redress Committees (GRC) at the village, district and provincial levels, to address any complaints and grievances pertaining to land acquisition, compensation and resettlement that are brought forward by PAPs.
114. The GRC comprise according to the CA, Annex C, Appendix 8, the following members:
  - Representatives of Provincial authorities and agencies (only for the Provincial Grievance Redress Committees);
  - Representatives of District authorities and agencies (only for the District Grievance Redress Committees and Provincial Grievance Redress Committees);
  - Village headmen;
  - Representative of PAPs;

- Representatives from mass organizations, such as the Lao Women Union, and elder councils;
  - Local non-profit organizations and
  - Representative from the Project.
  - Other persons may be appointed by mutual agreement.
115. The purpose of the grievance procedure is to ensure that PAPs have the means to assure that they have been adequately and satisfyingly protected from adverse impacts of the Project, or if impacts cannot be avoided that they are satisfied they have obtained adequate compensation and that their entitlements are delivered sufficiently and on schedule. If an affected person or group or community feels they have not been adequately protected or compensated, have not received the entitlements due to them, or otherwise believe they have been unfairly affected by the Project, that person or group or community has the right to make a claim. The Grievance Procedure will cover both social and environmental issues, since most of the environmental impacts are those that affect people.
116. The GoL recognizes that the best way to avoid conflicts or grievances is through the process of consultations, disclosures, and participatory planning and decision-making. Thus, the first stage is Conflict Avoidance. This will be done through consultations and disclosures, as well as participation in planning and decision making. If disagreements do arise, but have not yet become firm conflicts, then the issue may still be solved through informal negotiations and other informal means. It is only when problems have become more intractable that they need to be taken to the more formal grievance process. This formal process is presented in Figure 4, a re-print from the Concession Agreement. The CA adds time frames for every level. The meeting of the Village Grievance Committee will be held in a public place, no more than 15 days from the date of formal receipt of the grievance. The meeting of the District Grievance Committee will be held in a public place, no more than 20 days from the date of formal receipt of the grievance (following the meeting of the VGC). The last step on provincial level within the GRM can last another 20 days after formal receipt of the grievance.



Schematic of the Grievance Procedure for the NNHP 1 Project

Figure 4: Schematic of the Grievance Procedure for the NNP1 Project (Source: CA, Annex C, Appendix 8)

### ***3.8 Workers' Grievances on Labour and Working Conditions***

117. The Company is responsible for its own, its contractors', and its subcontractors' compliance with national and international labour and working conditions standards. This includes grievances related to occupational health and safety, labour working conditions, workers' rights, core labour standards, wages and benefits of workers hired by NN1PC, contractors or subcontractors. In handling monitoring and grievances related to these issues, the Project follows two complementary approaches.
118. The first approach involves internal monitoring and conflict resolution by the Contractors Compliance Committee and the related teams inside the technical division, EMO, and SMO. Regular, non-scheduled monitoring visits will be conducted. Additionally, workers will be informed about their rights and the possibility to contact the CCC in case of grievances with the necessary details (name of labour management officer within SMO, telephone number).
119. The second, complementary, approach of the Project is to support the Lao Labour Union in organizing and representing the workers among the Company, its contractors, and its subcontractors. The Lao Labour Union can then engage with contractors and subcontractors in solving grievances. In case no solution can be found, the LLU can also coordinate directly with the Company.
120. As with the GRM for the communities, these processes to solve grievances amongst the Project's work force do not void the right of every individual to contact the Lao judicial system in case he or she feel treated wrongly.
121. Grievances of PAPs in regard to job opportunities and employment entitlements are handled by the GRM outlined in the previous section.

## CHAPTER 4 - Public Health Action Plan

### 4.1 Baseline Health Conditions

122. Baseline data at the community level found that the diseases and health problems of people in the project area are consistent with issues reported elsewhere in the country. The most common diseases affecting people nationally can be placed in seven categories, though not all mentioned have been found in the project area. However, even if not yet found in the project area, sufficient efforts need to be made to prevent their emergence:
- i. Food and water borne diseases: diarrhoea, dysentery, food poisoning, typhoid.
  - ii. Arthropod vector borne diseases: malaria, dengue fever, J.B. encephalitis, scrub typhus.
  - iii. Diseases that can be prevented through vaccination: hepatitis B, measles, tetanus of babies.
  - iv. Parasitic diseases: opisthorchiasis, schistosomiasis (located near Cambodia), hookworm, whipworm, tapeworm.
  - v. Respiratory infections: tuberculosis, acute respiratory infection (ARI), common cold, influenza.
  - vi. Nutritional imbalance: malnutrition, vitamin A deficiency, iodine deficiency, anaemia.
  - vii. Reproductive health problems: sexually transmitted diseases (STD), including syphilis, gonorrhoea, Chlamydia, HIV/AIDS.
123. Additionally, women from some ethnic groups in the project area lack both the confidence and the language skills to communicate effectively with Lao-speaking health care workers and extension workers. Particular attention will be placed on appropriate and effective means of communicating health care messages in these circumstances.

#### 4.1.1 Objectives of the Plan

124. Objectives of community health program are:
- To build on existing government plans and structures and assist the GoL in reaching the MDGs and other health related targets
  - To prevent and mitigate significant adverse health effects in the communities, both in the village and district levels.
  - To improve the health situation of local people, including residents in the resettlement villages, with special attention on strengthening skills of village health workers.

- To promote Behavioural Change Communication (BCC) for health related programs and prevention strategies, focusing on improved knowledge and awareness of endemic causes of morbidity and mortality, as well as on maternal and child health care.
- To build capacity for health care providers.

#### **4.1.2 Target Population/Beneficiaries**

125. The public health action plan is based on the health impact assessment presented in the SIA report. The plan covers two health programs<sup>7</sup>, which have in common the overall objectives to prevent illness and to avoid potential adverse health effects from the Nam Ngiep 1 Hydropower Project to people in the project area and surrounding areas. The two recommended health programs are:
- Health program for resettled communities and host communities
  - Health program for other PAPs
126. Both programs require working with district and provincial health units, to improve the standard of their ability to respond to local health issues. The program for resettled communities and host communities will be jointly coordinated and supervised by the company with provincial and district health authorities. The health program for other local affected people will be implemented in the villages, with the main implementing authorities the district health offices in Thathom and Hom District, Xaysomboun Province; and Bolikhan District, Bolikhamxay Province.

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<sup>7</sup> The Health program for construction worker is described in Chapter 5.

No	Sub-Program	Objective	Activities	Targeted Population	Responsible Agencies
1	Community Health in the Resettlement Area	<ul style="list-style-type: none"> <li>• Initiate a preventive and responsive health program</li> <li>• Minimize negative health effects due to or related to resettlement.</li> <li>• Prevent and avoid negative health impacts from nearby construction work.</li> <li>• Improve the health situation in general of the resettlement and host communities</li> <li>• Improve delivery of public health services from the existing health centres to local communities through capacity building in preventive health services to health centre staff and village health workers</li> <li>• Build in rapid response capacity to any potential health issues resulting from project activities</li> </ul>	<ul style="list-style-type: none"> <li>• Building/repair/improvement of new health care centres</li> <li>• Nutrition Programs</li> <li>• Health Awareness Programs</li> <li>• Mother-and-Child Health Programs</li> </ul>	2UR (328HH), 2LR (384HH), Z3 (33 HH)  Z5 (117 HH)	District and Provincial Health Offices with support from SMO (Health Team / SD Section)
2/3	General Community Health Improvement in the Project Impact Zone incl. Training of Health Practitioners	<ul style="list-style-type: none"> <li>• Improve the health conditions for local people in and around the project area.</li> <li>• Prevent and avoid negative health impacts from the changes in water level and water flow.</li> <li>• Prevent and avoid negative health effects due to the influx of construction workers.</li> </ul>	<ul style="list-style-type: none"> <li>• Acute Respiratory Infection (ARI)</li> <li>• Malaria control and prevention</li> <li>• Good health and hygiene practice for food and water quality</li> <li>• Extended Program for Immunization (EPI)</li> <li>• Maternal and Child Health / Nutrition</li> <li>• Dengue fever control and treatment program</li> <li>• De-worming</li> <li>• Construction of "Field health service unit"</li> <li>• Health screening</li> <li>• Malaria and Dengue fever Prevention</li> </ul>	Z1 (1005HH), 2UR (328HH), 2LR (384HH), Z3 (33 HH), Z4 (1592 HH), Z5 (117 HH)	District and Provincial Health Offices with support from SMO (Health Team / SD Section)

No	Sub-Program	Objective	Activities	Targeted Population	Responsible Agencies
			program <ul style="list-style-type: none"> <li>• Health education and prevention for sexually transmitted diseases</li> <li>• Accident prevention</li> <li>• Solid waste management</li> <li>• Psycho-social stress</li> <li>• Substance abuse</li> </ul>		
4	Water supply and sanitation program	<ul style="list-style-type: none"> <li>• Provide water supply and sanitation to all new sites/adjacent villages</li> <li>• Supply clean water</li> <li>• Minimize the threat of mosquito-borne diseases from reduced water levels</li> <li>• Minimize the threats to drinking water for humans and animals from anoxic water conditions</li> <li>• Improve the infrastructure in the project impact zone</li> </ul>	<ul style="list-style-type: none"> <li>• Provide potable water supply infrastructure</li> <li>• Provide sanitary facilities</li> <li>• Monitor water levels in construction area and downstream to avoid formation of water pools</li> <li>• Monitor oxygen levels in reservoir and downstream during initial inundation of the reservoir and first years of operation</li> </ul>	2UR (328HH), 2LR (384HH), Z3 (33 HH), Z4 (1592 HH), Z5 (117 HH)	Contractor, through ESD, monitoring by SMO; For construction of community water supply systems cooperation with Nam Sa'at/MoH
5	Minimize dust, noise and air pollutants	<ul style="list-style-type: none"> <li>• Prevent and mitigate effects of dust, noise and other air pollution emissions during pre-construction /construction and operation phases on the local population, and on workers and camp-followers.</li> <li>• Monitor dust, noise, and air pollution levels to assure the conditions do not create undue risk to the possible affected groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor emissions and instruct contractors accordingly</li> </ul>	2LR (384HH), Z3 (33 HH), Z5 (117 HH) plus Nonsomboun (169 HH)	Contractor, with monitoring by SMO

No	Sub-Program	Objective	Activities	Targeted Population	Responsible Agencies
6	Minimizing traffic related accidents	<ul style="list-style-type: none"> <li>Apply necessary measures for the prevention of traffic accidents</li> </ul>	<ul style="list-style-type: none"> <li>Road Safety Campaign</li> <li>Road Signs</li> <li>Instructions on traffic safety for contractors</li> </ul>	2LR (384HH), Z3 (33 HH), Z5 (117 HH) plus Nonsomboun (169 HH)	Contractor and Operator, with monitoring of particular activities and coordination with nearby communities by SMO
7	Social Management and Mitigation Plan	<ul style="list-style-type: none"> <li>Prevent negative aspects of Camp Followers onto host communities</li> </ul>	<ul style="list-style-type: none"> <li>Support of GoL</li> <li>Upgrading and Establishment of Health Facilities</li> <li>Community Awareness Program on risks of construction and relations between community, camp followers, and workers</li> <li>Workers Code of Conduct</li> <li>Zoning of incoming camp followers and allocation of land plots for their businesses to regulate relations between local communities, camp followers, and workers</li> <li>Water Supply and Sanitation Facilities for Camp Followers</li> </ul>	Z3 (33 HH), Z5 (117 HH) plus Camp Followers and Workers	GoL, ESD/SMO, Contractors

Table 4: Public Health Action Plan / Overview

## 4.2 Sub-Program 1: Community Health in the Resettlement Area

127. **Objective:** The objectives for the resettlement health program are:
- i. To initiate a preventive and responsive health program
  - ii. To minimize negative health effects due to or related to resettlement.
  - iii. To prevent and avoid negative health impacts from nearby construction work.
  - iv. To improve the health situation in general of the resettlement and host communities
  - v. To improve delivery of public health services from the existing health centres to local communities through capacity building in preventive health services to health centre staff and village health workers
128. **Responsible Agencies:** are
- District and Provincial Health Offices
  - Financial and technical support from the SMO, i.e. the health team of the Social Development section
  - Activities:
    - Building/repair/improvement of new health care centres
    - Nutrition Programs
    - Health Awareness Programs
    - Mother-and-Child Health Programs
    - Health monitoring of interactions between communities and construction labour
129. The Resettlers will be living through a major transition as they move from their previous villages to the new resettlement site, until their lives have once again become stable. There are a number of new facilities that the Nam Ngiep 1 Hydropower Project will provide to the Resettlers, to help them through this transition. In terms of the health program, the company will provide new health care facilities in the resettlement community, as well as make sure that the residential area has good and healthy housing, clean water, solid waste disposal programme, and good sanitation.
130. Given the current poor nutritional status in project affected areas, particularly among women of childbearing age and children as a result of parasitical infections, poor knowledge and awareness of food values, and for some households limited access to year-round food security, the Project will pay particular attention to improving nutritional status of resettler and host households. A program will be established to first establish the health baseline conditions of resettled and host families, to enable the Project to monitor the impacts of project activities addressing nutrition levels of pre-school children, primary school children, and women of childbearing age. Prior to resettlement, the existing under-nutrition rate, as well as prevalence of parasitic infections (a key source of anaemia and malnutrition) will be surveyed among pre-school children, primary school children, and women of childbearing

age of Zones 2UR, 2LR and 3. Based on the results of this, a parasitic eradication and nutrition support program will be established, including nutrition in nursery centres and primary schools, that will help prevent any deterioration of health conditions due to resettlement and will help improve nutritional status in general for young children and women.

131. Cost Estimated (USD): Included in the Budget presented in Sub-Program 2

132. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Construct new health care facilities or upgrade existing facilities	Once	+		+									
Assess nutrition conditions of pre-school children and women of childbearing age	Every other Yearly		+		+			+		+	+		
Prepare and implement nutrition program for pre-school and primary school children in resettled communities. Implement parasitical eradication program for all resettled and host families	On-going			+	+	+	+	+	+	+	+		

Table 5: Work Plan Community Health / Resettlement Area

133. Furthermore, resettlers and host communities will gain from the general community health improvement program outlined in the next section.

### ***4.3 Sub-Program 2: General Community Health Improvement in the Project Impact Zone***

134. Given the differing impacts of the Project on each of the main project zones, and the different conditions and needs of the communities in those zones, there will be some variation in the types of communities health programs applied to each zone. The types of health programs for each zone are described below, with a summary of the extent of application of those projects throughout the Project.

135. Public health risks for areas affected by impoundment include outbreaks of diseases such as dengue, malaria, schistosomiasis, Japanese encephalitis, leptospirosis, typhus and cholera. These are avoided mainly by providing sufficient drainage in drawdown zones. From experience in hydropower projects elsewhere in Laos, risk of such disease outbreaks is very low.

136. Water resource projects diverting streams and rivers in Lao PDR have, however, experienced outbreaks of skin rash or "swimmers' itch" among people who swim or bathe in rivers and streams where discharges are significantly reduced, particularly in the dry season. The only main area where this could occur in the Nam Ngiep 1 project is immediately downstream of the dams. Constant water quality monitoring will take place to identify such an impact immediately. Water monitoring will start early in the construction phase, to cover and differentiate potential impact by Nam Ngiep 2.
137. As a preventive as well as compensation measure, NNP1 will provide domestic water supplies to resettled and host communities using water sources other than the Nam Ngiep river. All new houses will be supplied with sanitation facilities and appropriate wastewater and domestic sewage treatment (see REDP and below). Household water sources will be constructed with proper protection and drainage to avoid creation of puddles and pools which may contribute to stagnant water conditions and encourage vector borne disease.
138. The Project will also monitor health-related issues between construction labour and communities and mitigate impacts via its special program Social Management and Mitigation in Section 4.8 of the PHAP. Occupational health is meanwhile covered by the Labour Management Plan.
139. **Objectives:**
- i. To improve the health conditions for local people in and around the project area.
  - ii. To prevent and avoid negative health impacts from the changes in water level and water flow.
  - iii. To prevent and avoid negative health effects due to the influx of construction workers.
140. **Responsible Agencies:** are
- District and Provincial Health Offices
  - Financial and technical support from the SMO, i.e. the health team of the Social Development section
141. **Activity:** During the first four years of the construction phase the health program will be normally operated by the local health station, district health office, district hospital and provincial health office. Before the 5th year of construction the program will emphasise the possible effects resulting from changes in water levels and water quality. Most planned activities will be directly implemented by the existing public health centre to villages and households in the target area. There will be additional project support in this program such as improved technical capacity for local health staff, to prevent health problems and to establish a system which is able to react immediately to any unanticipated health problems related to the dam construction and operations. Close coordination and cooperation will be necessary with the health staff provided by the contractors responsible for maintaining and monitoring the health of contractual labour on the construction site (see below).
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142. For improved health awareness among the local population, particularly relating to the main health problems already described above, district level health training groups will be set up. These will train the Village Health Volunteers (VHV), set up district information education and communication groups and carry out suggested IEC activities.

143. **Cost Estimated (USD):** 543,000USD (includes budget for activities of subprogram 1 and 3)

144. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Improve health situation and awareness by provision of health services (see below)	Monthly		+	+	+	+	+	+	+	+			
Prevent and avoid negative health effect by community health consultations, surveys, and immunization	Quarterly		+	+	+	+	+	+	+	+			
Improve health capacity by training of health staff	Twice a year		+	+	+	+	+	+	+	+			

Table 6: Work Plan General Community Health Improvement in the Project Impact Zone

145. The next paragraphs will outline details for each project zone.

### 4.3.1 Project Zone 1 (Upstream Area)

146. These programs will be implemented in the 8 upstream villages indirectly affected by the Project and located in Project Zone 1:

147. *Program 1* Acute Respiratory Infection (ARI): This zone has some of the most humid and cool weather, resulting in many cases of ARI. District health staff and VHV will provide health education to introduce preventative measures and will provide treatment for AVI.

148. *Program 2* Malaria Control and Prevention: Surveys and blood smears (slides) will be done by the Village Health Volunteers (VHV) for active case detection. Blood smears will be collected and sent to the Malaria, Parasite and Entomology section for microscopic examination at the district hospital. Presumptive treatment will be started immediately for those who had sufficient symptoms to require the blood smear. Impregnated mosquito nets will be provided every household. VHV will be training on the methods to impregnate mosquito nets and on the need to do so twice a year.

149. *Program 3* Good health and hygienic practice for food and water quality: Training will be provided to VHV hygienic food practices, including how best to cook food, the risks of

eating raw meat, fish, and other foods, the need to boil drinking water, and the importance of washing hands before eating and after using the toilet. Special attention will be put on food proscriptions and avoidances for childbearing women. Advice will be sought for by international consultants working on nutrition in Laos. They will also be trained on the importance of using latrines to reduce gastrointestinal diseases such as Diarrhoea, Opisthorchiasis, and Taeniasis. Further points will be the avoidance of using toilets with bare feet, using concrete to seal the area around drinking water supply, and keeping animals fenced from residential areas.

150. *Program 4* Extended Program for Immunization (EPI): In remote areas of the country, immunization against various diseases now reaches only about 70% of the population. The target for the villages in the project area is 100% coverage within 5 years.
151. *Program 5* De-worming: To rid school and pre-school children of intestinal parasites. This will be done at least once a year by health station staff in co-operation with school teachers.

### **4.3.2 Project Zone 2UR (Upper section of the reservoir area)**

152. According to the health survey, in the five years before the survey, the main diseases in the 3 villages of this zone were: malaria, common cold, and diarrhoea. There were no reported cases of dengue fever, hepatitis, conjunctivitis, or dermatitis. Major health concerns concerned malaria, gastro-intestinal and other water-borne diseases, and the extent of immunization of the children in the villages.
153. *Program 1* Malaria Control and Prevention: Surveys and blood smears (slides) will be done by the Village Health Volunteers (VHV) for active case detection and to establish a baseline. Blood smears will be collected and sent to the Malaria, Parasite and Entomology section for microscopic examination at the district hospital. Presumptive treatment will be started immediately for those who had sufficient symptoms to require the blood smear. Impregnated mosquito nets will be provided to every household. VHV will be training on the methods to impregnate mosquito nets and on the need to do so twice a year.
154. *Program 2* Extended program for Immunization (EPI). In remote areas of the country, immunization against various diseases now reaches only about 70% of the population. The target for the villages in the project area is 100% coverage within 5 years.
155. *Program 3* Good health and hygienic practice for food and water quality: Training will be provided to VHV hygienic food practices, including how best to cook food, the risks of eating raw meat, fish, and other foods, the need to boil drinking water, and the importance of washing hands before eating and after using the toilet. Special attention will be put on food proscriptions and avoidances for childbearing women. Advice will be sought for by international consultants working on nutrition in Laos. They will also be trained on the importance of using latrines to reduce gastrointestinal diseases such as Diarrhoea, Opisthorchiasis, and Taeniasis. Further points will be the avoidance of using toilets with bare feet, using concrete to seal the area around drinking water supply, and keeping animals fenced from residential areas.

156. *Program 4* De-worming: To rid school and pre-school children of intestinal parasites. This will be done at least once a year by health station staff in co-operation with school teachers.
157. *Program 5* Nutrition: To assure adequate nutrition of mothers, infants, pre-school and primary school children. Following baseline nutrition surveys, a nutrition program will be prepared and implemented with assistance from local health personnel, VHVs, and teachers.

### **4.3.3 Project Zone 2 LR (Lower section of the reservoir area)**

158. These areas are to be inundated by the reservoir after the construction of the dam. The residents of this area will have to move to the new resettlement sites in Zone 5. Most of the health programs for people in this zone will be implemented at their new homes. However, before they move to the new resettlement sites, a comprehensive household-level health baseline will be conducted to establish pre-impact conditions. Help to cope with the psychological and social stresses associated with the involuntary move from their home to a new site will also be available.
159. *Program 1* Psychological and social stress: With the need to move to the new resettlement sites, people in these 4 villages are likely to face considerable anxieties about their future livelihood, their farmland and access to other resources, the continuity of their culture and social ways of life, and other concerns. The NNP1 community development team together with the health team will try to assess early on potential problems and monitor community and household development and may acquire professional advice for coaching for supporting people cope with any stresses they may feel. Stress is elevated by poor communication and responsiveness, and therefore the project's stakeholder consultation and communication program will be an essential component of addressing fears and concerns of affected families.
160. *Program 2*. Prior to relocation, a general health education program will start in order to improve the health conditions of the people prior to resettlement. The better the health of people prior to resettlement, the better the resettlement will go and the faster people will feel able to adapt to their new situation, with less psychological and social stress. This program will include the items mentioned under section (2) Project Zone 2UR (Upper section of the reservoir area)

### **4.3.4 Project Zone 3**

161. This zone has one sub village which will be inundated by the re-regulating dam after construction. Hatsaykham will move to the resettlement site earlier than the villagers from 2LR, but the general health programs for these villagers are included in the plans for Zone 5, where Ban Hat Gniun is located, for the early project stage and later on covered by health-related programs in the resettlement site.

### **4.3.5 Project Zone 4 (Downstream area)**

162. This zone will be mainly affected by changes in the water level of the Nam Ngiep, both

during construction and operation, and also by possible erosion of river banks, and by changes in water quality. This is also the most likely impact zone for possible outbreaks of "swimmers' itch" during the Project's operational phase. Although all of Zone 4 is in Bolikhamxay Province, it covers parts of two districts: the villages closest to the dam site are in Bolikhan District, while those closest the Mekong River are in Pakxan District. Given its location by the Mekong River, across from Thailand, and along one of the country's main highways (13 S), Pakxan is the most developed part of the project area. Even so, the health program of both districts will be fundamentally similar.

163. *Program 1* Good health and hygienic practice for food and water quality: Training will be provided to VHV hygienic food practices, including how best to cook food, the risks of eating raw meat, fish, and other foods, the need to boil drinking water, and the importance of washing hands before eating and after using the toilet. Special attention will be put on food proscriptions and avoidances for childbearing women. Advice will be sought from international consultants working on nutrition in Laos. They will also be trained on the importance of using latrines to reduce gastrointestinal diseases such as Diarrhoea, Opisthorchiasis, and Taeniasis. Further points will be the avoidance of using toilets with bare feet, using concrete to seal the area around drinking water supply, and keeping animals fenced from residential areas.
164. *Program 2* Extended Program for Immunization (EPI): In remote areas of the country, immunization against various diseases now reaches only about 70% of the population. The target for the villages in the project area is 100% coverage within 5 years.
165. *Program 3* Dengue fever control and treatment program: Dengue fever control and treatment program. Survey to determine the container index and house index of aedes larval by trained VHV. Distribution of 1% Temephos (Abate) Sand Granules to eradicate Aedes mosquito larvae in manmade breeding containers, with subsequent fogging of insecticides throughout the village to killing adult Aedes mosquitoes
166. *Program 4* Health education and prevention for sexual transmitted disease, HIV/AIDS, and providing free condoms. Many of the construction workers will go to communities in Zone 4 for entertainment. A variety of services will be established, to address increased risks of STDs and HIV/AIDS. The education and prevention program is expected to help minimize risk from these diseases. Experiences from a reproductive health programme formerly implemented in Xaysomboun province with Hmong communities will be integrated into lessons learned for project activities.
167. *Program 5* Traffic accident prevention by improving signs and enforcing regulations.
168. *Program 6* Solid waste management, including garbage disposal, waste water and faecal management.

#### **4.3.6 Project Zone 5 (Resettlement Area and Host Communities)**

169. Houaysoup Area is the resettlement site for the 4 villages in Zone 2LR as well as Hatsaykham from Zone 3. There will also be a new health centre built here to serve the

resettled communities. Zone 5 incorporates furthermore the host communities, which will be included in these programs and are able to use all facilities at the resettlement site.

170. Program 1 Malaria Control and Prevention: Surveys and blood smears (slides) will be done by the Village Health Volunteers (VHV) for active case detection. Blood smears will be collected and sent to the Malaria, Parasite and Entomology section for microscopic examination at the district hospital. Presumptive treatment will be started immediately for those who had sufficient symptoms to require the blood smear. Impregnated mosquito nets will be provided to every household. VHV will be training on the methods to impregnate mosquito nets and on the need to do so twice a year.
171. Program 2 Good health and hygienic practice for food and water quality: Training will be provided to VHV hygienic food practices, including how best to cook food, the risks of eating raw meat, fish, and other foods, the need to boil drinking water, and the importance of washing hands before eating and after using the toilet. Special attention will be put on food proscriptions and avoidances for childbearing women. Advice will be sought for by international consultants working on nutrition in Laos. They will also be trained on the importance of using latrines to reduce gastrointestinal diseases such as Diarrhoea, Opisthorchiasis, and Taeniasis. Further points will be the avoidance of using toilets with bare feet, using concrete to seal the area around drinking water supply, and keeping animals fenced from residential areas.
172. Program 3 Extended Program for Immunization (EPI): In remote areas of the country, immunization against various diseases now reaches only about 70% of the population. The target for the villages in the project area is 100% coverage within 5 years.
173. Program 4 Maternal, reproductive and child health: including family planning program. There will also be a nutrition program (program 5 below) with emphasis on mothers and their children.
174. Program 5 Nutrition: To assure adequate nutrition of mothers, infants, pre-school and primary school children. Following baseline nutrition surveys, a nutrition program will be prepared and implemented with assistance from local health personnel, VHVs, and teachers.
175. Program 6 Dengue fever control and treatment program. Survey to determine the container index and house index of aedes larval by trained VHV. Distribution of 1% Temephos (Abate) Sand Granules to eradicate Aedes mosquito larvae in manmade breeding containers, with subsequent fogging of insecticides throughout the village to killing adult Aedes mosquitoes.
176. Program 7 De-worming: To rid school and pre-school children of intestinal parasites. This will be done at least once a year by health station staff in co-operation with school teachers.
177. Program 8 Stress (continuation of program in Zone 2LR and 3): Resettled households will continue to suffer from stress over their involuntary resettlement for some time after their move. The psychiatric staff and other health personnel who assisted the villagers before their move will continue to visit at least once a month and provide assistance as needed, for

up to 5 years after resettlement. The community health centre would be the key meeting place for community activities under this program; while more personalized care will be in people's homes.

178. The table below provides a summary of the various health programs to be implemented in the 5 zones of the Project.

Program	Zone 1	Zone 2 UR	Zone 2 LR <sup>8</sup>	Zone 3	Zone 4	Zone 5
1. Acute Respiratory Infection (ARI)	+					
2. Malaria control and prevention	+	+	+			+
3. Good health and hygiene practice for food and water quality	+	+	+		+	+
4. Extended Program for Immunization (EPI)	+	+	+		+	+
5. Maternal and Child Health / Nutrition		+	+			+
6. Dengue fever control and treatment program			+		+	+
7. De-worming	+	+	+			+
8. Construction of "Field health service unit"				+		
9. Health screening				+		
10. Malaria and Dengue fever Prevention program				+		
11. Health education and prevention for sexual transmitted diseases				+	+	
12. Accident prevention				+	+	
13. Solid waste management				+	+	
14. Psycho-social stress			+			+
15. Substance abuse				+		

Table 7: Components of the General Community Health Improvement Program per Zone

179. This program will be implemented in close coordination with the special Program on Social Management and Mitigation, Section 4.8, which addresses camp followers as well as workers-community relations, including sexual and reproductive health issues in its sub-program 2.

#### ***4.4 Sub-Program 3: Capacity building for Village Volunteers, Health Centres and District Health Office Staff***

180. Closely connected to the overall community health improvement program is one of the most important long-term components of the health action plan: to support to improve the

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<sup>8</sup> Start implementation of programs prior to relocation, in preparation of the Resettlement and continued in Zone 5 following relocation

technical capacity and capacity building of the local population through Village Health Volunteers (VHV) and the district level health officers. They will be trained in various topics, among them (1) promotion of good health and sanitation and prevention of disease, (2) diagnostics and detection, and (3) treatment for various diseases. The capacity building of the VHV and the district staff will be done by providing training for health care, and by providing appropriate diagnostic and treatment protocols for respiratory diseases, malaria, dengue fever and dengue vector control, sexual transmitted diseases, HIV/AIDS, diarrhoea and food hygiene, water supply, malnutrition and micronutrient deficiencies including iodine deficiency, and nutritional supplements for those with poor nutrition. The traditional health practices of the local communities will be incorporated as appropriate, through promotion of cultural health practices in collaboration with Traditional Medicine Research Centre of the Ministry of Health.

181. Among the first tasks of the health team of the SMO will be to assess the capacity of the Provincial and District Health personnel and of the Village Health Volunteers, to determine the types and amount of training needed and if any additional support in personnel and materials is required.
182. The Project will work together with local organizations that have experience in the field of public health and capacity building, such as NGO's specialized in dealing with HIV/Aids positive people and other organizations such as Handicap International to advice on working with People With Disabilities.
183. Through a scholarship program, NNP1 will also take the approach to support villagers from within the resettlement communities to become trained nurses and doctors to work in the health centre in the Resettlement area.

#### ***4.5 Sub-Program 4: Water Supply and Sanitation Program***

184. **Objectives:**
  - To provide water supply and sanitation to the resettlement site and the host communities
  - To supply clean water
  - To minimize the threat of mosquito-borne diseases from reduced water levels
  - To minimize the threats to drinking water for humans and animals from anoxic water conditions
  - To improve the infrastructure in the project impact zone
185. **Responsible Agency:** Contractor, through ESD, monitoring by SMO
186. **Activity:**
  - i. Provide water supply infrastructure, including pumping facilities and water storage facilities.

- ii. Provide sanitary facilities, involving a septic tank system with adequate capacity to treat wastewater of the population in the construction campsite.
- iii. All water storage facilities will be secured with access limited to authorised personnel. Local streams will be used as the source of the water supply. The intake for the water storage will be located a suitable distance upstream of any wastewater discharge point.
- iv. Monitor water levels in construction area and downstream to avoid formation of water pools that could serve as breeding grounds for vector mosquitoes. Although the remaining water flow during construction is expected to be sufficient to prevent the formation of such pools, should any be found to have formed, the Project will help move any obstacles to the drainage of those pools.
- v. Monitor oxygen levels in reservoir and downstream during initial inundation of the reservoir and first years of operation as well as early tests in the river to capture NNP2 impacts. Although there will be sufficient clearing of the vegetative matter in the reservoir area before inundation, decay of remaining vegetation will reduce the oxygen levels, though as noted in the EIA the exact impact cannot be determined beforehand. Adequate potable water will be made available to villages around the reservoir and to downstream communities in case the river water cannot be used for an extended period.
- vi. For construction of community water supply systems, the Project will work together closely with Nam Sa'at, the department within the MOH responsible for rural water supply and sanitation. Coordination will be at all three levels, district, province and National level.
- vii. **Cost Estimated (USD):** 223,000USD. Trainings are funded as outlined in Sub-Program 3

#### 187. Work Plan:

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Provide water supply infrastructure	Once	+	+	+	+								
Supply sanitary facilities comprising a septic tank system	Once		+						+				
Secure all water storage facilities with access limited to authorised personnel.	Yearly	+	+	+	+	+	+	+	+	+			

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)				
			1	2	3	4	5	1	2	3	4-8	>8
Maintain water supply and sewage system	Yearly	+	+	+	+	+	+	+	+	+		
Monitor downstream for still water pools during construction	Frequent – assisted by local residents											
Coordinate with Nam Sa'at in the MoH			+	+	+							

Table 8: Work Plan Water Supply and Sanitation Program

#### 4.6 Sub-Program 5: Minimize dust, noise and air pollutants

188. Activities are part of the EMP, but included here because of potential impact on nearby communities and because of the need for monitoring by the SMO.
189. **Objective:** According to the HIA, project activities were classified in two general periods with different types of impacts: 1) the pre-construction and construction phase and 2) the operation phase. Possible impacts from dust, noise, and air pollutants will affect various groups during the two periods:
- Pre-construction and construction phase
  - Workers in construction work camp
  - Other groups related to the construction work (local residents, camp-followers including families, and those providing services)
  - Communities along the transportation corridor
  - Operation phase
  - Employee/workers
  - Villages near the access road (near the project site).
190. The public health program to protect and mitigate health problems relating to dust, noise and other air pollution emissions will have the following objectives:
- To prevent and to mitigate effects of dust, noise and other air pollution emissions during pre-construction / construction and operation phases on the local population, and on workers and camp- followers.
  - To monitor dust, noise, and air pollution levels to assure the conditions do not create undue risk to the possible affected groups.
191. **Responsible Agency:** Contractor, with monitoring by SMO
192. **Activities:** Prevention and mitigation activities would be introduced to cover all possible adverse health effects relating to exposure to dust, noise, and other air pollution emissions. The planned activities are:

- i. Spray exposed surfaces and crusher operations with water to suppress the dispersion of dust in consultations with the communities on necessary frequency and timing.
- ii. Locate the worker camp at least 3-4 km from quarry site and the main dam respectively and about 2 km from stockpile and plant yard, in order to minimize dust and noise from those sites.
- iii. The emissions of the diesel fuel combustion engines of construction equipment will be inspected on a regular basis and adjusted as required to minimize pollution levels.
- iv. Workers who work in the vicinity of dangerous fumes and metals must have proper equipment, including proper respiratory equipment.
- v. Workers, who work with or in the vicinity of welding in confined areas, spray painting, and operation of machinery with emissions, must be provided with appropriate respiratory equipment.
- vi. All vehicles will switch off engines when not moving, and not leave the vehicles idling.
- vii. All vehicles will be washed or cleaned before leaving the site if close to sensitive receptors.
- viii. All loads entering and leaving the site must be properly covered.
- ix. Workers' health relating to respiratory diseases must be systematically diagnosed during the entire period of employment, especially for those who work in a dusty environment or an environment with fumes and emissions.
- x. The air quality, noise and vibrations in the work campsite and at other sensitive areas along the transport corridors and in the construction areas must be monitored during pre-construction / construction and operation phases.

193. **Cost Estimate (USD):** The expense will be included in good management practices of construction sites

194. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Use water to suppress dust dispersion over exposed surfaces and crusher operation.	Daily	+	+	+	+	+	+						
Suppress dust in the worker camp	Daily	+	+	+	+	+	+						

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)				
			1	2	3	4	5	1	2	3	4-8	>8
Control pollution from the construction equipment	Daily	+	+	+	+	+	+					
Provide a mechanical filter type respiratory and air-supplied helmet for fumes and metallic.	Once	+										
Provide appropriate personal respiratory protection equipment	Once	+										
Switch off engines	Every time	+	+	+	+	+	+					
Wash or clean all vehicles before leaving the site	Daily	+	+	+	+	+	+					
cover all loads entering and leaving the site	Every time	+	+	+	+	+	+					
Systematically diagnose worker's health condition related to respiratory diseases	Once	+						+				
Monitor air quality Noise and Vibration	Yearly	+	+	+	+	+	+	+	+	+		

Table 9: Work Plan on Minimizing Dust, Noise, and Air Pollutants

#### 4.7 Sub-Program 6: Traffic Safety

195. Activities are part of the EMP, but included here because of potential impact on nearby communities and because of the need for monitoring by the project's ESD.
196. **Objectives:** To apply necessary measures for the prevention of traffic accidents
197. **Responsible Agency:** Contractor and Operator, with monitoring of particular activities and coordination with nearby communities by SMO
198. Activities:
- i. Post road signals, road and place names, speed limits and applicable load limits. Speed bumps may be installed at sensitive locations
  - ii. Set up a maintenance program for the construction vehicle fleet (check for brakes and tires, safety of vehicles, vehicle exhaust emissions and vehicle noise emissions and noise control measures)

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- iii. Each construction vehicle in the fleet is to be inspected every 6 months and a written certificate provided by a qualified mechanic as to its fitness for service.
  - iv. Visual inspection of traffic movements within the construction area will be carried out. If there is evidence that congestion is occurring on roads. If traffic congestion is found to be occurring, appropriate management measures will be implemented. Passengers will also be inspected, to assure that only project-related personnel are riding the project vehicles.
  - v. Movement of construction vehicles and traffic on-site will be confined to the designated access road network. No movement of vehicles outside the designated access road network will be permitted.
  - vi. Off-road parking areas will be provided at each construction site. Parking areas will be marked with temporary fencing or similar marking of the boundaries. Parking areas will be located in existing cleared areas within the designated construction area. No on-road parking will be permitted.
  - vii. Prior to the movement of special loads on public roads, including hazardous materials or large items of construction equipment, the ESD will be notified, and the ESD will coordinate with nearby communities along the transport route. All reasonable and practical measures required by the ESD will be implemented to ensure that the risk of harm to the community and environment is minimized during transportation of special loads.
  - viii. Construction activities on public and internal roads will be marked by safety fencing and appropriate warning signs in Lao and English.
  - ix. Non-project personnel shall not be permitted to ride in project vehicles, to prevent injury or death to non-project personnel in case of accidents. Drivers or other project staff found to have given rides to non-project personnel will be warned at their first offense, warned and fined at their second offense, and dismissed at their third offense.
  - x. A public awareness campaign will be conducted to make villagers living along the roads frequently used by the Project aware of traffic regulations and the danger posed by the increased traffic. In addition, people will be informed of protective measures that they can take to prevent accidents from occurring, such as carrying lights on all vehicles, no drunk driving and following the road regulations of the Lao PDR.
199. **Cost Estimated (USD):** Costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.
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200. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Post road signals and signs at sensitive areas	Once	+						+					
Set up maintenance program for the construction vehicle fleet	Monthly	+	+	+	+	+	+						
Inspect each construction vehicle	Twice a year	+	+	+	+	+	+						
Visual inspection of traffic movements	Daily	+	+	+	+	+	+						
Confine movement of construction vehicles and traffic on-site	Every time	+	+	+	+	+	+						
Provide off-road parking areas	Once	+											
Notify prior to the movement of special loads on public roads	Once	+											
Mark construction activities on public and internal roads	Once	+											
Public awareness campaigns	Initially yearly and then based on need	+	+	+	+	+	+	+	+	+			

Table 10: Work Plan Traffic Safety

#### 4.8 Special Program: Social Management and Mitigation Plan

201. **Objective and Scope:** Persons living in the villages near the construction site such as Hatsaykham, Hat Gniun, Thahuea and those at the beginning of the access road such as Nonsomboun are likely be employed during construction works by the contractors as labourers. Increased employment by the contractors will change significantly the local economy from a subsistence oriented economy to a more cash oriented economy, although Nonsomboun community is already more integrated in the market economy than other communities. Camp followers will establish guesthouses, shops, restaurants/noodle shops, pubs and bars, and business related facilities near the main construction sites, works camps and truck stop areas. Services to the contractors, construction workers, as well as to camp followers by villagers living in the neighbourhood of the construction sites will boost the

local economy, but also leads to increased risks of the spread of communicable diseases, human trafficking, and social disruption. The Company in cooperation with local authorities, integrating contractors/subcontractors, will regulate the establishment and operation of such facilities on village or government land by the camp followers or by villagers themselves. The necessary staff is integrated into the Resettlement Preparation Section, as the hired teamleader will oversee both programs in Hatsaykham. Measures are outlined below.

202. Because there is significantly less construction work undertaken in the upper reservoir area, near the villages of Pou, Hatsamkhone and Piengta, risks to these communities are lower than for those near the dam construction area. With the increased road access and general traffic passing through these communities in 2UR, the risks are of a different nature and camp followers will likely pose a smaller risk compared to that of increased mobility and commercial traffic passing through the area regardless of project activities. The company acknowledges however, that there is also a need for a program in the 3 communities in Upper reservoir zone.
203. As indicated in the ESMMP-CP, camps for construction workers are required to meet minimal standards for basic facilities (infrastructure, potable water, sanitation, waste management, health services, cooking area or canteen) for workers, reducing the reliance on services such as restaurants, laundry facilities, and other services provided by camp followers.
204. The Company has set aside a budget to assist GoL and its agencies in the development and implementation of preventive measures to be undertaken in coordination with the contractors to prevent and/or minimize the spread of communicable diseases, including HIV/AIDS and to minimize risk of human trafficking during the construction period. Increased incidence of communicable diseases represents a potentially serious health threat to the construction work force, project personnel, camp followers, and local residents and their families when construction workers return home.
205. The contractors will engage a construction work force of up to 1800 workers. They will be required to engage, to the extent possible, as much local capable construction workers as possible, including people from zone 2LR. Several factors will influence the number of camp followers that will follow the NNP1 project. A worst case scenario (based on the original Theun Hinboun project) would be a ratio of 4 camp followers for each construction worker. A most probable scenario would be a ratio of 2 camp followers for every construction worker<sup>9</sup>. The Nam Ngum 3 project expected similar numbers of camp followers<sup>10</sup>. Factors limiting the expected number of camp followers include the geographic location of the camp sites near Pakxan Town, only 45 minutes' drive once the access road has been upgraded.

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<sup>9</sup> Source: NTPC Construction Phase Social Management Plan.

<sup>10</sup> Source: Nam Ngum 3 REDP.

206. **Sub-Program 1 - Support of GoL.** The camp followers officers within the Resettlement Preparation and Labour Team at the construction site of NNP1PC will support GoL's regulation and enforcement ensuring clean water supply, appropriate sanitation, and hygiene standards at the noodle shops, restaurants, bars, karaoke's, discos, guesthouses, hotels, and night clubs that may be set up by local residents and/or camp followers to service the construction workforce. The Project and GoL will control and forbid the installation of spontaneous camp followers and ensure that the services to be provided to the workers are available within the construction camps in an organised and orderly manner, as described in detail in the ESMMP-CP.
207. **Sub-Program 2 - Upgrading and Establishment of Health Facilities.** The ESD will also assist GoL with the upgrading of the existing health clinic at Piengta, to service the local population and camp followers, but also with building capacity, awareness training, and monitor and implement preventive measures regarding communicable diseases, including sexual transmitted diseases. A reproductive health program is included in the Project's health activities outlined in Sub-Program 3. The public health clinic will be accessible to the workers as well. Nonetheless, the Project will establish emergency plans for construction site accidents as outlined above and in the EMP. Due to the limited construction in Zone 2UR, no separate contractors' health clinic will be established in this zone.
208. At the camp site near Hat Gniun, a contractor's health clinic will be established providing easy access to workers and local villagers. Data from the contractor's health clinic will be closely monitored to jointly identify the potential sources of communicable diseases with the objective to prevent them.
209. At the resettlement site a clinic will be constructed for Resettlers. Depending on the time of resettlement and the number of workers still employed, this clinic may provide services to camp followers as well.
210. Interventions at the project level include (i) surveillance and active screening and treatment of workers, (ii) preventing illness among workers and local communities by health awareness initiatives, and (iii) training health workers in disease treatment.
211. **Sub-Program 3 - Sexual and Reproductive Health Program.** (i) Training of workers and service providers to understand how to protect themselves; (ii) regular health check-ups; (iii) awareness programs as part of the youth program to understand safe and risky behaviour.
212. **Sub-Program 4 - Community Awareness Program.** As part of the Community awareness programs, the SMO will also provide awareness training to villagers along the access road and camp followers of increased risks of human trafficking, drug abuse or other social evils that may result from the influx of construction workers and camp followers as well as increased traffic and transport opportunities with many empty cars and trucks leaving the construction sites to travel to Pakxan and onwards to Thailand (for construction materials such as cement).
213. **Sub-Program 5 - Workers Code of Conduct.** A Workers Code of Conduct will be established and be made a part of all contracts and explained to workers, clearly spelling out

what conduct is not accepted and which penalties for non-compliance will apply, including dismissal for serious or three minor breaches.

214. **Sub-Program 6 - Support of Public Authorities.** The district Police Office in Bolikhan will see a significant increase in responsibilities during the construction phase. In order to cope with this increase in responsibilities, the company will:
- Provide assistance in establishing routines, roles and responsibilities and reporting procedures as well as clear linkages with other project-related organisations
  - Renovation of buildings and supplying equipment, computers, communication equipment and logistics for a more efficient operation;
  - Additional funds for meetings and planning in relation to NNP1 tasks and daily operation in carrying out tasks for the RMU;
  - Assessment of capacity to perform tasks and identification of suitable training for local staff in relation to NNP1. Training is expected to be provided by Staff from the Ministry, facilitated through NNP1 budget support;
  - Support to each relevant District Police Office during construction for at least three (3) additional women police officers due to the increased tasks on women's security, anti-trafficking measures, drug abuse, and female camp followers;
  - Assignment of one female and one male police officer per district to the Population Management and Security Task Force, whose duties include work on Trafficking;
  - Provision for short-term Technical Assistance for District Police Offices as required.
215. **Sub-Program 7 - Zoning.** The project will, in coordination with local authorities, encourage the establishment of a designated area assigned for camp followers to establish shops & restaurants (Camp followers zone). The project will encourage that these be allocated by local authorities according to the following procedure:
- Top priority be given to businesses owned by local residents and PAPs,
  - Next to others from the districts where the Project is implemented
  - Last to outsiders.
216. Based on the location of the main construction camps, the District Coordination Committee in coordination with the RMU and local villagers will assign a designated area(s) for Camp followers. This area needs to be close enough to the construction camps to be easily accessible by walking, but far enough to not cause problems. Consideration will be given to allow for sufficient vehicle parking space to not hinder traffic on the road and provide a safe place to stop and park vehicles. This area will be a clear area for the provision of water and other infrastructure and limited in space only. The Project will encourage the coordination committees to reserve at least half of available commercial space during the initial establishment of the zone for enterprising people from Hatsaykham and Hat Gniun to open shops if they are interested. They may require Livelihood training session provided by ESD prior to realizing the potential and having access to microfinance capital. Careful consideration must be given to allocation of the site, to prevent Hatsaykham residents from misunderstanding the establishment of the zone as "relocating them to the other side of the

river to give opportunity for others to do business, resulting on them staying poor and outsiders getting rich”, which means it should not be understood by villagers of Hatsaykham that their land has been appropriated to provide economic opportunities to shop-owners from the urban areas rather than to them.

217. **Sub-Program 8 - Water Supply for Camp Followers.** Temporary water supply facilities need to be provided to camp followers at an early stage, to ensure that water sources currently used by residents in Hat Gniun are not overexploited by the population increase. In addition, use of clean water for food & drinks preparation, cleaning of utensils and hand washing are the most important hygiene practices to prevent outbreaks of diseases such as diarrhoea, cholera and other water born diseases, which pose a significant threat to the workforce if not well managed.
218. Based on the locations of the construction camps and designated camp follower locations, the following measures must be undertaken:
- Draft a plan for the supply of water to camp follower areas, based on estimated
  - population increase and scenarios for the construction period;
  - Minimum of one, cement-sealed, tube well or tap for 20 camp follower families would be an acceptable rate; the Project will guarantee 20 l / capita / day, as to avoid high risks of outbreak of diseases
  - Depending on the outcome of the study, BoQ (Bill of Quantities) for developing or augmenting a public water supply system and a call for tenders carried out;
  - Construction to commence as soon as possible in order to ensure a successful management of camp followers. The availability of clean water and drainage is one of the most significant motivation for camp followers to participate in the management and zoning plan;
  - The Camp followers areas will need to be identified as key location for water quality and use monitoring due to the relative high population density and risk of contamination of water supplies by the different users (households, business and small industries)
219. **Sub-Program 8 - Sanitation Facilities for Camp Followers.** Appropriate sanitation facilities will need to be made available at the designated camp followers areas, to facilitate hygienic practices and prevent contamination of the soil and waterways near the designated camp followers area. Depending on the solid waste and wastewater disposal system established for the main construction camps, it will be considered to integrate the camp followers waste collection mechanisms into a larger program that ensures proper disposal.

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Preparation of a camp followers policy and camp service providers management plan based on NNP1 construction camp locations and workers inflow schedules (Objective is to regulate and control the influx of camp followers, track and monitor health among sex workers, ensure proper health and hygiene conditions, guarantee proper water supply, management of liquid and solid wastes, prevent and forbid hunting, trade and consumption of wildlife, human trafficking, etc.).	Once	+	+	+									
Support to Bolikhamxay Province and Bolikhan District in managing the camp followers, health and human trafficking.	Constant	+	+	+	+	+	+	+	+				
Preparation & dissemination of a code of conduct applicable to all workers, camp followers, staff of the Company, contractors, subcontractors and visitors	Quarterly	+	+	+	+	+	+	+	+				
Overall environmental and social awareness in the project areas (health, human trafficking, unsustainable use of natural resources, PCR)	Quarterly	+	+	+	+	+	+	+	+				

Table 11: Work Plan Social Management and Mitigation Plan

220. Cost Estimated (USD): For the Social Management and Mitigation Plan a Lump-sum of 250,000USD has been budgeted
221. The Matrix below outlines Camp Followers risks and mitigation measures outlined partly in this section, partly in the other chapters of the SDP; i.e. it extends and is not limited to the Public Health Action Plan.

Risk	Mitigation	Responsible Party and Budget
Potential for unregulated development of sub-contractor work camps	Main contractors responsible for sub-contractor camp construction and monitoring of conditions	Main contractors to cover costs of supervision and monitoring. Project to monitor contractors' compliance with E&S constituents of contractual obligations
Potential for a proliferation of random disorganised camp follower developments with unhealthy and unsanitary living conditions	Social Management and Mitigation Plan for Camp Followers (see ESMMP-CP) Public Health Action Plan (PHAP)	Provincial Resettlement and Livelihood Restoration Committee and the RMU to advise. DCC solves immediate problems and makes recommendations to RMU. NNP1-SMO assists the SMC and PMS Task Force. Budget for SMC and PMS operations under Social Management and Mitigation Plan. Budget provided by NNP1
Unplanned development without coordination with authorities and negative long-term results for urban growth	Social Management Plan and Mitigation Programme for Camp Followers	Budget and responsibility included in the Social Management Plan and Mitigation Programme for Camp Followers (various implementing agencies and components)
Increases in risks to worker and local resident health	ESMMP-CP requires Main contractors to implement Health and Safety Plans for worker safety. Public Health Plan – see Chapter 4 for health improvement for local populations and camp followers	Main contracts budget to cover worker safety issues Health interventions for population in vicinity of camps covered under the SDP.
A risk of increased drug abuse, violence and security, problems due to the unusual, temporary population influx of workers and camp followers, and to the lack of local resources and human capacity.	Trafficking Management and Monitoring Plan Governments Policy on Social Management. Monitoring by PMS Task Force Addition and upgrading of women on district & provincial police forces. NNP1-SMO monitoring of work camps and camp followers.	NNP1 budget for Social Management and Mitigation Plan, supported by NNP1-SMO.  Short-term Technical Assistance on Population Management and Security

Risk	Mitigation	Responsible Party and Budget
A risk of human trafficking in the camp follower population	<p>Trafficking Management and Monitoring Plan</p> <p>Governments Policy on Social Management.</p> <p>Monitoring by PMS Task Force</p> <p>Addition and upgrading of women on district &amp; provincial police forces.</p> <p>NNP1-SMO monitoring of work camps and camp followers.</p>	<p>NNP1 budget for Social Management and Mitigation Plan includes support for Trafficking Management and Monitoring Plan, the PMS Task Force and the short-term Technical Assistance on Trafficking</p> <p>Budget: NNP1 Public Health Action Plan</p>
An increase in the demand for food and other essential supplies in Hat Gniun, town markets and inflation	<p>Nutritional issues and prices of key commodities under socio-economic monitoring programme</p> <p>Initiate agriculture and livestock promotion program for villagers in Hat Gniun (including Hatsaykham) and Thahuea to increase local production of meat and vegetables.</p>	<p>Monitoring costs of basic goods under the monitoring plan</p> <p>Livelihood team of SMO with interventions under various component budgets in REDP</p>
Potential for discontent among local people if a significant percentage of workers are not given work	<p>Direct Workforce Local Labour Recruitment Plan</p>	<p>Recruitment of local workers covered by HC. Support to be provided by District and local GoL authorities.</p>
Potential for local discontent due to inappropriate social behaviour of workers (drinking, gambling, seeking prostitutes, and harassing local women.)	<p>Workers' Code for Appropriate Behaviour will be explained to and signed by all employees of NNP1, with breach of contract as a consequence.</p> <p>Village monitoring by the PMS Task Force with reporting to SMO and RMU</p>	<p>Implementation by Main contractors and related companies</p> <p>NNP1 Budget for PMS Task Force</p> <p>NNP1 budget for Public Health Action Plan (PHAP).</p>
Lack of supply of potable water and water for domestic use for local population and	<p>Provisions for improved water supply and sanitation as part of the Social Management Plan and Mitigation Programme for Camp (ESMMP-CP)</p>	<p>Budget for water supply and sanitation measures for controlled camp follower sites.</p> <p>Main contractors to provide clean water supply in their camps</p>

Risk	Mitigation	Responsible Party and Budget
population influx	Water quality and monitoring programme under EMU/EMO.	
A significantly increased risk of traffic accidents with unregulated control of construction vehicles	1) Traffic safety programme (on site) 2) Traffic safety programme between sites and along main routes within the region 3) Need for coordination between Main contractors, NNP1 and GoL organisations regarding traffic safety and regulation, as stipulated in the ESMMP-CP	1) Main Contractors responsible for project vehicles and equipment within project sites 2) Main Contractors responsible for traffic safety programme. 3) SMO to organize road safety programs for the affected communities 4) Coordination costs covered under the administration cost of each organization
The project has the potential to significantly increase jobs, employment and incomes of men and women in the local area which would help to mitigate the above negative impacts	Direct Workforce Local Labour Recruitment Plan  Includes Gender Balanced Targets to guide local and external hiring. Skill training program for PAPs in zone 5 and Resettlers from 2LR	Costs for the requirement of local labour covered by Main contractors. Assistance to be provided by District and local GoL authorities. Skill training and Livelihood development activities are part of the REDP

Table 12: Camp Followers Risks and Mitigation Measures regarding Health and other Related Issues

## 4.9 Summary of Programs

### 4.9.1 Roles and Responsibilities of Various Institutions

222. The main parties responsible for implementing the PHAP for the villages in the project area are the Provincial and District Health services and the Village Health Volunteers, with financial and technical support from the company through the SMO. A Health Team under the Social Management Office of the Project's ESD will be responsible for these activities.
223. The Department of Health is obligated provide a training strategy and implement training for the Village Health Volunteers and the District and Provincial Health personnel. While under the responsibility of the appropriate GoL authorities, the programs in the project area can receive financial and material support from the project as appropriate, above all via the health team under SMO. The Project will assist the Provincial Health offices to prepare and implement annual Health Plans which reflect the targets and objectives in the Project's PHAP.
224. REMARK: A major issue with community infrastructure is not just its provision, but also its operation and maintenance. Different line agencies (e.g. Dept. of Health) are supposed to include infrastructure maintenance of facilities such as clinics as part of their annual budgets. In reality no such funds for maintenance are forthcoming, and villages in Laos with such infrastructure typically have to source funds for maintenance of all public buildings from their own communities.
225. The Project is aiming for sustainable and independent communities with no dependence on external organizations, following the stabilization phase. Therefore it will work together with the communities to develop models of financing operation and maintenance of infrastructure. This includes several options:
- Operation and Maintenance from a village fund; in this case there will be discussions as to how this village fund can be financed. The Project will establish market booths in many villages which the village can rent out to achieve income for village activities
  - Operation and Maintenance from the Project's Community Development Program; in the event that it can be implemented without creating dependencies and reduced ownership
  - Operation and Maintenance via neighbourhood groups
  - Operation and Maintenance by self-funding measures

### 4.9.2 Implementation Schedule

ID	Task Name	2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
0	<b>PHAP Timeline</b>	[Timeline bar from Q3 2014 to Q1 2024]																					
1	<b>Overall Project Construction Activities</b>	[Timeline bar from Q3 2014 to Q1 2020]																					
2	Financial Close	[Timeline bar from Q1 2015 to Q1 2015]																					
3	<b>Construction</b>	[Timeline bar from Q3 2014 to Q1 2020]																					
4	Access Road	[Timeline bar from Q3 2014 to Q1 2015]																					
5	Diversion Tunnel	[Timeline bar from Q1 2015 to Q1 2016]																					
6	Main Dam Excavation	[Timeline bar from Q1 2015 to Q1 2016]																					
7	Main Dam Concrete	[Timeline bar from Q1 2016 to Q1 2018]																					
8	Power Plant	[Timeline bar from Q1 2015 to Q1 2018]																					
9	Impoundment of Reservoir	[Timeline bar from Q1 2018 to Q1 2018]																					
10	Re-Regulation Dam	[Timeline bar from Q1 2015 to Q1 2017]																					
11	Power Plant	[Timeline bar from Q1 2015 to Q1 2018]																					
12	Transmission Line	[Timeline bar from Q1 2015 to Q1 2020]																					
13	Commercial Operation Date	[Timeline bar from Q1 2018 to Q1 2018]																					
14	<b>Consultations and Monitoring</b>	[Timeline bar from Q3 2014 to Q1 2024]																					
15	Community Consultations	[Timeline bar from Q3 2014 to Q1 2024]																					
16	Baseline Health Survey	[Timeline bar from Q1 2015 to Q1 2015]																					
17	Regular Internal Community Development Monitoring	[Timeline bar from Q1 2015 to Q1 2024]																					
18	<b>Community Health in the Resettlement Area</b>	[Timeline bar from Q3 2014 to Q1 2024]																					
19	Construct new health care facilities or upgrade existing facilities	[Timeline bar from Q1 2015 to Q1 2016]																					
20	Assess nutrition conditions of pre-school children and women of childbearing age	[Timeline bar from Q1 2015 to Q1 2024]																					
21	Prepare and implement nutrition program for pre-school and primary school children in resettled communities	[Timeline bar from Q1 2015 to Q1 2024]																					
22	Implement parasitological eradication program for all resettled and host families	[Timeline bar from Q1 2015 to Q1 2024]																					

ID	Task Name	2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
23	<b>General Community Health Improvement in the Project Impact Zone incl. Training of Health Practitioners</b>	[Gantt bar spanning from Q3 2014 to Q1 2024]																					
24	Acute Respiratory Infection (ARI)	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
25	Malaria control and prevention	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
26	Good health and hygiene practice for food and water quality	[Gantt bar spanning from Q3 2014 to Q4 2023]																					
27	Extended Program for Immunization (EPI)	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
28	Maternal and Child Health / Nutrition	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
29	Dengue fever control and treatment program	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
30	De-worming	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
31	Construction of "Field health service unit"	[Gantt bar spanning from Q1 2015 to Q2 2016]																					
32	Health screening	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
33	Malaria and Dengue fever Prevention program	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
34	Health education and prevention for sexual transmitted diseases	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
35	Accident prevention	[Gantt bar spanning from Q3 2014 to Q4 2023]																					
36	Solid waste management	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
37	Psycho-social stress	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
38	Substance abuse	[Gantt bar spanning from Q1 2015 to Q3 2016]																					
39	<b>Other Health Programs</b>	[Gantt bar spanning from Q3 2014 to Q1 2024]																					
40	Capacity building for Health Staff	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
41	Water supply and sanitation program	[Gantt bar spanning from Q1 2015 to Q4 2023]																					
42	Minimize dust, noise, and air pollutants	[Gantt bar spanning from Q3 2014 to Q4 2023]																					
43	Minimize traffic related accidents	[Gantt bar spanning from Q3 2014 to Q4 2023]																					
44	Social Management and Mitigation Plan	[Gantt bar spanning from Q1 2015 to Q4 2023]																					

Table 13: Public Health Action Plan / Overall Implementation Schedule

226. NNP1 will deliver to ADB the detailed Public Health Action Plan at least 30 days prior to commencement of main construction activities, including further schedule details for the items outlined above.

### 4.9.3 Costs and Budgeting

No.	Item	Costs in USD
1	Community Health in the Resettlement Area	543,000
2/3	General Community Health Improvement in the Project Impact Zone incl. Training of Health Practitioners	
	Vulnerable Household Support	165,000
4	Water supply and sanitation program	223,000
5	Minimize dust, noise and air pollutants	EMO Budget
6	Minimizing traffic related accidents	EMO Budget
7	Social Management and Mitigation Plan	250,000
	<b><i>Community Health Program Total</i></b>	<b>1,181,000</b>

Table 14: Public Health Action Plan / Total Costs and Budgeting

## CHAPTER 5 - Labour Management Plan

### 5.1 Introduction<sup>11</sup>

227. Due to the requirement of large numbers of labourers and the associated influx of labour, careful adherence is required to policies and statutory requirements governing labour.
228. ADB's Social Protection Strategy 2001 requires the Borrower, the NNP1PC, to comply with applicable national labour laws in relation to the Project (presented above), and to take measures to comply with the core labour standards for the ADB financed portion of the Project. NNP1PC will take the following measures:
- carry out its activities consistent with the intent of ensuring legally permissible equal opportunity, fair treatment and non-discrimination in relation to recruitment and hiring, compensation, working conditions and terms of employment for its workers (including prohibiting any form of discrimination against women during hiring and providing equal work for equal pay for men and women engaged by NNP1PC);
  - not restrict its workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment;
  - provision of mandated wages and benefits for all workers engaged by the Project (NNP1PC and its contractors and subcontractors) as required by the national law;
  - engage contractors and other providers of goods and services:
    - i. who do not employ child labour or forced labour;
    - ii. who have appropriate management systems that will allow them to operate in a manner which is consistent with the intent of (A) ensuring legally permissible equal opportunity and fair treatment and non-discrimination for their workers, and (B) not restricting their workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment; and
    - iii. whose subcontracts contain provisions which are consistent with paragraphs (i) and (ii) above.
229. The above measures will be incorporated in the environmental and social management plans, and in particular in the ESMMPs to be prepared by the Contractors. Their implementation will be monitored and reported regularly.
230. This chapter in the SDP explains of the Project's focus on direct local labour recruitment policy, community management; education on social behaviour, such as campaigns against drunkenness, drug abuse or prostitution; prevention and management of sexually

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<sup>11</sup> Sections of the Labour Management Plan are congruent to sections in the EMP and ESMMP-CP.

transmitted diseases; problems and impacts of human trafficking; and conflict resolution.

231. Several of the actions described in this chapter concerning labour camp construction standards and workers environmental safety and use of PPE are a repetition of activities described in the EMP and ESMMP-CP. This is deliberately, so that the SDP document can function as a standalone documents and the reader is provided with an overview of actions taken in order to provide a good, safe and fair working environment. Table 15 contains the overview of the plans described in this chapter.

Paragraph	Activity	Time Range	Purpose	Target population	Implementation arrangement
5.5.4	NNP1PC recruitment and employment policy.	December 2013-2046	NNP1PC will carry out its activities consistent with the intent of ensuring legally permissible equal opportunity, fair treatment and non-discrimination in relation to recruitment and hiring, compensation, working conditions and terms of employment for its workers (including prohibiting any form of discrimination against women during hiring and providing equal work for equal pay for men and women engaged by NNP1PC.	NNP1PC staff.	Human resource division of NNP1PC.
5.5.5	NNP1PC company policy.	December 2013-2046	Not restrict its workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment.	NNP1PC staff.	Managing Director of NNP1PC.
5.5.6	Engage only contractors and other providers of goods and services who comply with national labour standards and take measures to comply with the core labour standards.	December 2013-2046	Ensure that the Project does not indirectly violate laws and regulations but that supplier uphold the same standards as the Company, including but not limited to : <ul style="list-style-type: none"> <li>● Provision of mandated wages and benefits as per the national labour laws.</li> <li>● Elimination of discrimination in employment and occupation.</li> <li>● Elimination of all forms of forced and compulsory labour.</li> <li>● Effective abolition of child labour.</li> <li>● Freedom of association and effective recognition of the right to collective</li> </ul>	Contractors and other providers of goods and services.	Procurement division of NNP1PC.  Contractors' and subcontractors' compliance with the labour laws and standards to be monitored by CCC under the lead of SMO

Paragraph	Activity	Time Range	Purpose	Target population	Implementation arrangement
			bargaining.		
5.5.7	Recruitment Policy for Local Labour.	December 2013-2023	Encourage local employment.	People living in and near the project areas.	Contractor, with monitoring by CCC under the lead of SMO.
5.5.8	Skills training program for Non Land base skill training sessions.	December 2013-2023	Increase skills of people living in the project area and thereby the chances for employment and level of tasks assigned.	People living in the project area.	SMO, with advice by contractors on the skills required.
5.5.8	Skill training program for Land base skill training sessions.	December 2013-2023	Increase income earning opportunities through increase productivity.	People living in the project area.	SMO, in coordination with DAFO.
5.5.9.1	Community Management.	May 2014-2023	<p>Build understanding among the labourers and the affected people regarding the impacts resulting from: construction activities, the influx of people, and the employment opportunities in both positive and negative manners.</p> <p>Systematic planning in educating the communities to be able to resist possible negative social impacts, social or cultural conflicts, communicable diseases, and other problems that might arise from the influx of the large number of workers and their followers.</p> <p>Extensive consultation and participation of the communities regarding establishing rules or preparing plans to prevent or protect the communities from those issues.</p> <p>Set up a joint committee among the related parties, especially the affected people and workers, to implement those plans and enforce the rules.</p>	Communities near construction labour camps.	Contractor, with monitoring by the SMO.

Paragraph	Activity	Time Range	Purpose	Target population	Implementation arrangement
5.5.9.2	Infrastructure Development.	December 2013-2023	Ensure Contractors provide living quarters of minimal standards that provide suitable living space and reduces the need of services from outside of the labour camps, reducing the number of camp followers.	Construction labour living in labour camps.	Contractor, with monitoring by EMO and SMO.
5.5.10	Human Trafficking Impacts and Management.	June 2014-2023	Reduce risk of human trafficking through establishing working group on prevention of human trafficking and increase awareness.	Communities near project sites.	SMO in coordination with GoL (LWU, MLSW and Ministry of Public Security Lao PDR).
5.5.11	Conflict Resolution.	February 2014	Establish code of conduct as preventive measure and to provide the foundation to resolve socially inappropriate behaviour and related matter.	All people working with the Project.	Contractor, with monitoring by CCC under the lead of SMO.
5.6.1	Health program for construction workers and their followers.	May 2014-2023	To ensure preventive and curative health measures to provide safeguards and assure the safety of the workers and their families. To prevent and, if prevention not possible, to mitigate negative health effects due to construction work. This concerns both occupational health and health issues involving the mingling of project staff, workers, and camp followers with the local population.	Construction workers and their followers.	Contractor, with monitoring by EMO and SMO.
5.6.2	Solid Waste Management Program	December 2013-2023	To set up waste disposal areas To collect and dispose solid wastes at appropriate waste disposal areas. To develop waste management plan	Construction workers and their followers	Contractor, with monitoring by EMO and SMO.
5.6.3	Hazardous Waste Management Program.	December 2013-2018	To set up a single, central hazardous waste storage area. To minimize pollution that may cause from the use of hazardous materials.	Labourers working on construction.	Contractor, with monitoring by EMO.

Paragraph	Activity	Time Range	Purpose	Target population	Implementation arrangement
			To develop and implement an emergency plan for hazardous materials.		
5.6.4	Care and Surveillance of Communicable Diseases among Workers.	December 2013-2018	To prevent the spread of communicable diseases.	Construction labour and surrounding villages.	Contractor, with monitoring by CCC under the lead of SMO.
5.6.5	Emergency Treatment and First Aid for Major Accidents/Injuries.	December 2013-2046	To respond promptly and successfully in the event of an emergency or a major accident.	Any person injured at the construction sites or camps.	Contractor, with monitoring by CCC under the lead of SMO.
5.6.7	Personal Protective Equipment for workers and or Employees.	December 2013-2046	To safeguard workers/employees from dangers/hazards at the workplace.	Workers/employees.	Contractor, with monitoring and inspections by the SMO.
5.6.8	Annual Physical Examination for Workers.	December 2013-2046	To safeguard the health of the workers, prevent communicable diseases and minimize adverse health impacts	Workers/employees.	Contractor, with monitoring by CCC under the lead of SMO.
5.6.9	HIV/AIDS Awareness Program for Workers.	December 2013-2018	To educate the workers on HIV/AIDS and protection from the disease.	Workers/employees.	Contractor, with monitoring by CCC under the lead of SMO.
5.6.10	Campaign against Social misbehaviour.	December 2013-2023	Control social misbehaviour, to protect the property, health, and welfare of the majority of the people.	Labour residing at working camps.	Contractor, with monitoring by CCC under the lead of SMO.
5.6.11	Prevention and Control of Sexually Transmitted diseases.	December 2013-2023	Increased knowledge on health and safety including disease prevention, hygiene and management. Reproductive health program, and monthly monitoring of labour, sex workers and camp follower health (overlapping with the PHAP).	Labour and sex workers.	Contractor, with monitoring by CCC under the lead of SMO .

Table 15: Overview of Labour Management Plans

## 5.2 Framework

232. The main law governing labour in Laos is the Lao Labour Law, with several Articles highlighted below; ADB's Social Protection Strategy (2001) and Core Labour Standards Handbook (2006); and the IFC Performance standard 2: Labour and Working Conditions

### 5.2.1 Labour Law

233. The Labour Law (1994) has clear regulations about days and hours of work, protective measure for labour and working conditions, health, labour accidents and occupational diseases. The relevant articles in the law are:

234. Article 16 regarding Hours of Work outlines that

- The hours of work of an employee in any labour unit shall be six days per week. Work will not exceed eight hours per day or forty-eight hours per week, irrespective of the type of salary or wages paid.
- Hours of work must not exceed six hours per day or thirty-six hours per week in respect of employees whose occupations are in sectors that involve:
  - Direct exposure to radiation or to dangerous communicable diseases;
  - Direct exposure to vapour [or] smoke which is dangerous to health;
  - Direct exposure to dangerous chemicals, such as explosives;
  - Working in pits, or in underground tunnels, under water or in the air;
  - Working in an abnormally hot or cold place;
  - Working directly with constantly vibrating equipment.

235. Article 42 on Protective Measures for Labour and Working Conditions outlines that

- Labour protection refers to the creation of conditions and environment enabling employees to work efficiently, including various measures to ensure workers' safety
- The employer shall be responsible for ensuring that the workplace, machinery, equipment, and production process, including the use of chemical substances under its supervision, are safe and not dangerous to the health of workers.
- The employer must establish internal regulations concerning labour and health protection, including the use of necessary measures to protect machinery, and the installation of various safety equipment in consultation with the trade union or workers' representatives in its labour unit. These regulations must be disseminated to workers and must be posted openly where everyone can read [them].
- Necessary measures to ensure labour safety and hygiene at the workplace include:
- Installing appropriate lights or sufficient natural light, limitation of excessive noise, [and] ventilation for air, dust and odours which are dangerous to health;
- A supply of clean drinking-water and use water, showers, toilets, a cafeteria, and changing room for workers;
- A storage room where toxic substances can be kept safely without risk of leakage;
- The provision, free of charge, in a sector where necessary, of personal safety

equipment and clothing required by workers engaged in production;

- The installation of safety equipment or fencing around any dangerous machinery or at other dangerous places, and other measures such as devices that warn against or prevent electric shocks, [and] fire and others, as necessary.
- The employer shall furthermore ensure that workers acquire sufficient knowledge of the rules relating to their own safety and health and shall organise training courses on those issues. The measures mentioned above shall be free of charge to workers.
- All workers shall attentively and strictly implement tasks relating to the safety and health of themselves and other people. They shall cooperate with the employer in the implementation of all measures relating to their safety and health.
- The employer is prohibited from using narcotics or substances dangerous to the health of workers in the labour unit.

236. Article 43 and Medical Examination and Health Care for Workers outlines that

- Each labour unit may require a medical certificate from workers who apply for work to ensure that they do not suffer from an occupational or serious communicable disease prior to employment. Where the applicant has an occupational or serious communicable disease, the employer may reject his application for employment.
- An employer must arrange for the workers to undergo a medical examination at least once a year, particularly those engaged in heavy work or [work] which is dangerous to their health, as stipulated in Article 16 of this law. If the doctor finds that a worker has an occupational disease derived from such workplace, the employer must be responsible for payment of his medical treatment in accordance with regulations. In the case of a contagious occupational disease, [the employer] must give the worker leave to undertake treatment until [he] fully recovers and will thereafter reinstate him to his usual tasks. All expenses for medical examination and treatment of occupational diseases shall be borne by the employer or social security organization for the worker who is member of such organisation.
- All labour units shall be equipped with a first-aid kit. [Labour] units employing fifty or more workers will have a permanent medical staff to take care of and treat the health of the workers.

237. Article 54 on Labour Accidents and Occupational Diseases outlines that

- A labour accident is an accident that results in injury, disability, handicap or death of workers as follows:
- During the performance of duties at the workplace or at any other place under the assignment of the employer or of a person acting on behalf of the employer;
- In a recreational area, cafeteria, or any other place within the scope of responsibility of the labour unit;
- During the commute from residence to workplace. An accident that occurs during the time the worker performs personal tasks without being assigned by the employer or its representative or occurring after completion of the assigned work, shall not be considered a labour accident.

- Occupational disease is any disease occurring as the result of an occupation. The types of occupational diseases are determined by separate regulations.
238. Article 55 on Care of the Victims of a Labour Accidents and Occupational Diseases outlines that
- The employer must provide appropriate help to a worker, who suffers from a labour accident or occupational disease, [and] in addition, the employer shall pay for the actual cost of the treatment or the social security organization shall bear the costs certified by a doctor, if such employee is a member of the organization.
  - In the event that the worker suffers from a serious labour accident or occupational disease or dies, the employer must report to the nearest labour administration agency within forty-eight hours. If the employee is dead, the employer shall be responsible for funeral expenses as appropriate but not less than six months' salary or wages of the deceased.
  - If a worker dies while on assignment by the employer to another workplace, the cost of transferring his body or remains to his family shall also be borne by the employer.
  - In addition, the heirs of the deceased have the right to receive a one-time allowance in accordance with regulations.
239. Article 56 on Allowance to Victims of Labour Accidents or Occupational Diseases outlines that
- The allowances for a worker who is a victim of a labour accident or an occupational disease are as follow:
    - Throughout the period of medical treatment and health rehabilitation certified by a doctor, the employee shall be entitled to receive his regular salary or wages, but not exceeding six months. If the period exceeds six months, for each exceeded month, he shall be entitled to receive only fifty per cent of his salary or wages, but [the period] shall not exceed eighteen months. For a member of the social security organization, the social security system shall be applied;
    - Where a worker becomes handicapped or loses any organ of the body as a result of a labour accident, or an occupational disease or dies as a result thereof, the employer shall pay an allowance to the victim or to his heirs in accordance with the laws and regulations.

## **5.2.2 ADB Social Protection Strategy and Core Labour Standards**

240. The ADB's Social Protection Strategy (2001) notes that in the design and formulation of its loans, it is expected that measures are carried out to ensure compliance with the internationally recognized core labour standards and that all necessary and appropriate steps are taken to ensure that for ADB financed procurement of goods and services, contractors, subcontractors and consultants will comply with the country's labour legislation (e.g., minimum wages, safe working conditions, and social security contributions, etc.) as

well as with the Core Labour Standards. The four core labour standards are:

- i. effective abolition of child labour
- ii. elimination of discrimination in respect of employment and occupation
- iii. elimination of all forms of forced or compulsory labour,
- iv. freedom of association and the effective recognition of the right to collective bargaining

241. The abolition of child labour is according to the ADB not just the implementation of a basic human right but also a crucial objective in reducing poverty. The short-term benefits of extra labour are outweighed by worse health conditions, reduced education and skills formation, health risks, and consequently reducing their productivity as adults. Thus abolition of child labour is a crucial development goal. ADB outlines that the principle of the effective abolition of child labour means ensuring that every girl and boy has the opportunity to develop physically and mentally to her or his full potential and accordingly its aim to stop all work by children that jeopardizes their education and development but does not mean stopping all work performed by children.
242. Discrimination in employment and occupation takes many forms and occurs in all kinds of work settings. But all discrimination shares a common feature—treating people differently because of certain characteristics, such as race, colour, sex, age, social origin or religion, which results in the impairment of equality of opportunity and treatment. In other words, discrimination results in and reinforces inequalities. Again, following this standard is not just a main obligation to implement basic human rights, but as well a development goal and thus must be component of every ADB supported project.
243. Fighting forced labour is an international standard, but nonetheless forced labour is still very common throughout the world according to ADB. This includes next to old form of slavery and bonded labour new forms of exploitation as for example human trafficking. ADB states that the abusive control of one human being over another is the antithesis of decent work and impedes poverty reduction. Accordingly, proactively engaging against forced labour has to be a primary objective in any labour regulation.
244. The last core labour standard is freedom of association and the effective recognition of the right to collective bargaining. ADB outlines that “Freedom of association and the effective recognition of the right to collective bargaining are the foundations for a process in which workers and employers make claims upon each other and resolve them through a process of negotiation leading to collective agreements that are mutually beneficial. In the process, different interests are reconciled. For workers, joining together allows them to have a more balanced relationship with their employer. It also provides a mechanism for negotiating a fair share of the results of their work, with due respect for the financial position of the enterprise or public service in which they are employed. For employers, free association enables firms to ensure that competition is constructive, fair, and based on a collaborative

effort to raise productivity and conditions of work.”

### 5.3 *Baseline Labour Conditions*

245. General baseline conditions in communities in the project area are described in Chapter 2 of the SDP.

#### 5.3.1 **Labour force**

246. In term of local labour, considering the availability of labour in Lao PDR in general, according to 2005 census data<sup>12</sup>, the demographics of the labour force in the country can be summarized as:

- From a total Lao population of 5,621,982, 74.2% were 10 years and older (4,171,199).
- Of those 10 years and older, 32.4% (1,351,696) were classed as "economically not active." This includes students, people involved specifically in household and domestic duties, retired people, and those too old or sick to work.
- Of those over the age of 10 considered to be "economically active" (the remaining 66.6% or 2,776,712 people over age 10), 98.6% (2,738,893) were classified as employed and 1.4% (37,820) were unemployed.
- Of the economically active people in Laos, 50.2% were female and 49.8% were male.

247. From other studies, it has been found that the proportion of employed men and women in rural areas is 15 to 50% higher than in urban areas. Unemployment rates in rural areas of Laos are 2 to 4 times lower than in urban areas in the same province. According to 2005 demographic estimates<sup>13</sup>, 20% of the Lao labour force is employed in occupations classed as industry or services, while 80% work in agriculture and related occupations.

#### 5.3.2 **Potential Local Labour Force**

248. It is common for contractors to prefer their own pool of skilled and unskilled labour. However, to the extent possible, adult workers will be recruited from the communities near the Project and in particular from those communities most affected by the Project, so that economic benefits can accrue to them, as income and in developing skills from their work, as well as limiting the influx of labour. Table 16 presents the total number of people in the working age cohorts in 8 villages moderately to severely affected by the Project. The total working age population, which is all the people in the aged from 16 to 60 years came to 1,162 males and 1,102 females. Those in the prime working age for the Project – those able to

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<sup>12</sup> Source: Retrieved from the Internet web site for the Lao PDR National Statistics Center on Dec 10, 2007 at [http://www.nsc.gov.la/Products/Populationcensus2005/PopulationCensus2005\\_chapter5.htm](http://www.nsc.gov.la/Products/Populationcensus2005/PopulationCensus2005_chapter5.htm)

<sup>13</sup> Source: Retrieved from the Internet web site Index Mundi on Dec 10, 2007 at [http://www.indexmundi.com/laos/labor\\_force\\_by\\_occupation.html](http://www.indexmundi.com/laos/labor_force_by_occupation.html)

perform hard labour and/or those able to learn the skills for semi-skilled jobs – aged 16 to 40 came 887 males and 847 females.

249. In interviews with many of the households, a number of people said they would be available to join the labour force for the construction of the Project, though it was not clear if they would be available full time or only during the agricultural off season. Still, there is a considerable potential labour pool immediately around the Project, certainly for unskilled and semi-skilled work. Every effort will be made to recruit workers from these communities.

No.	Community	Working Age Population (16 to 60)			Prime Working Age (16 to 40)		
		Male	Female	Total	Male	Female	Total
1	Piengta	123	113	236	96	88	184
2	Hatsamkhone	134	131	265	97	99	196
3	Pou	245	221	466	182	167	349
4	Houaypamom	57	51	108	44	38	82
5	Sopphuane	96	96	192	73	72	145
6	Sopyouak	224	203	427	175	156	331
7	Namyouak	234	239	473	180	188	368
8	Hatsaykham	49	48	97	40	39	79
	<b>TOTAL</b>	<b>1,162</b>	<b>1,102</b>	<b>2,264</b>	<b>887</b>	<b>847</b>	<b>1,734</b>

Table 16: Summary of Labour Force of the Eight Communities of Zones 2UR, 2LR, and 3

## 5.4 Impacts

250. With the influx of about 1000-1800 workers into the Project construction sites, the residential areas for the workers will be heavily populated. This could apply pressure on local resources and on local villagers.

### 5.4.1 Impacts on local resources

251. This large labour force will have to be fed. Much of the food will come from outside the project area, but some will be produced or found in the area: people growing vegetables, raising animals, catching fish, and trading food items with one another. Currently, the Project forms a relevant unit with a senior national expert as team-leader, which will be engaged in workers-camp followers-community relations. Thereby the Project will explore the possibility of procuring food (vegetables, poultry and meat, fruits) and other supplies available locally from the project affected people. For instance, the local communities may form groups, including women, to sell/supply their produce to the Project, contributing to their incomes. The Project will at the same time inform about the risks of market dependencies in regard to the limited construction period.
252. There will also be concerns about maintaining hygiene, especially among people with many different types of personal hygienic and sanitary habits.

### **5.4.2 Impacts on local culture**

253. Because of potential conflicts between local cultures and communities on the one hand and the people of many different cultures and communities coming in as part of the workforce, there is need for cultural sensitivity training for those coming into the area, to assure they act in an appropriate manner toward the local residents. This is especially true for respect for religious and sacred entities. With adequate understanding, the workers coming into the area would be properly mindful of what they say and of their bodily gestures, so as to avoid offending the locals unintentionally.
254. Conversely, there may be pre-existing social issues in local communities which risk being exacerbated by an influx of labour, sex workers and camp followers. The Project will integrate into both its PHAP and Labour Management Plan, measures to reduce such risks.

### **5.4.3 Health issues**

255. Consequences of dam construction are the arrival of large numbers of workers in the camp and also migrant settlers from other localities and regions known as camp followers. Increased densities of people in such isolated rural areas, with inadequate sanitary facilities in worker camps, can often result in (1) an increase in sexually transmissible diseases (2) a spread of locally prevalent contagious diseases via inhalation, ingestion, and skin contact such as tuberculosis, leprosy, leishmaniasis, etc., (3) introduction of new diseases thus far unknown in the area of the hydropower project (4) exposure of displaced populations to diseases that do not exist in their original habitat. (5) disease via vectors (i.e., mosquito, amoeba) such as outbreak of malaria in the labour force.

## ***5.5 Project Labour Strategy/Measures***

### **5.5.1 The Requirement for a Plan**

256. The amount of labour required is estimated to be about 1,000 active workers/day in the first 2 years; 1,800 active workers/day in the third and fourth years; and 1,000 active workers/day for the remaining construction period<sup>14</sup>. An administration office of the EPC contractor and an owners' office are to be located in the construction area. Management staff of both the EPC contractor and the owner will be stationed within the construction area. Heavy equipment such as bulldozers, dump trucks, excavator, truck cranes, and drilling machines, would be brought in and temporary facilities such as the crushing plant, batching plant and base camp would be constructed.

### **5.5.2 Objectives of the plan**

257. The objectives of the plan is to:
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<sup>14</sup>JICA NAM NGIEP-I HEPP (Phase II), 2002 page 10-15

- Apply ADB's Social Protection Strategy and consider measures described in the ADB Core Labour Standards Handbook (2006) throughout the Project
- To encourage the labourers and the contractors to realize the significance and consequences of health, cultural and social misbehaviour in work places
- To promote awareness of the concerns of villagers in the construction area regarding health, cultural, and social consequences of the construction and its labourers.
- To encourage the contractors to engage as many local residents, in particular those from affected communities, as workers on the Project.
- To set up suitable plans for health in work places, proper use of local resources, minimizing social misbehaviour, avoiding cultural conflict, and related issues

### 5.5.3 Scope

258. Target populations/beneficiaries are:

- The labourers, workers and Employees of the Project
- The affected people who reside in or contiguous to the construction area

### 5.5.4 Sub-Program 1: NNP1PC Recruitment and Employment policy.

259. The Recruitment and Employment policy and conditions of NNP1PC will carry out its activities consistent with the intent of ensuring legally permissible equal opportunity, fair treatment and non-discrimination in relation to recruitment and hiring, compensation, working conditions and terms of employment for its workers, including prohibiting any form of discrimination against women during hiring and providing equal work for equal pay for men and women engaged by NNP1PC.

### 5.5.5 Sub-Program 1: NNP1PC company policy on Freedom of Association

260. The policy of the NNP1PC company will not restrict its workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment.

### 5.5.6 Sub-Program 2: Policy on contractors and other providers of goods and services regarding labour standards

261. The project will only engage contractors and other providers of goods and services:

- i. who comply with the mandated wages and benefits for workers as per the national labour laws;
- ii. who do not employ child labour or forced labour;
- iii. who have appropriate management systems that will allow them to operate in a manner which is consistent with the intent of (A) ensuring legally permissible equal opportunity and fair treatment and non-discrimination for their workers, and (B) not

restricting their workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment; and

- vi. whose subcontracts contain provisions which are consistent with paragraphs (i) and (ii) above.
262. The project will monitor application of contractual obligations to ensure compliance. Contractors and other providers of goods and services found to not abide by these regulations will be put on a list of not suitable contractors or other providers of goods and services by the Procurement division.

### **5.5.7 Sub-Program 3: Recruitment Policy for Local Labour**

263. The Company complies with the obligations of the Concession Agreement to engage first and foremost Lao nationals. As part of social protection and poverty reduction, recruitment of local labour for the Project will furthermore be supported by encouraging contractor and subcontractors to hire PAPs and providing PAPs with vocational skill development trainings to make them attractive for the Company, contractor, and subcontractors. Currently, subcontractors already engage local, unskilled workers for the preliminary works of the Project along the Access Road. Further opportunities will arise for resettlers from 2LR during the development of the resettlement site and its infrastructure and the consequent operation period.
264. For any position available related to the Project either during the construction or operation period, the Project will open a number of those positions to local people especially those who are in the affected area. However, these practices must abide to the Labour Law (1994) and also the policy of the lender<sup>15</sup>.
265. Fundamentally, both the law and policy are in the agreement that the recruitment of labours must include:
- i. elimination of discrimination in employment and occupation
  - ii. elimination of all forms of forced and compulsory labour
  - iii. effective abolition of child labour
  - iv. freedom of association and effective recognition of the right to collective bargaining.
266. The contractors will be required to prepare recruitment plans with annual targets for hiring local unskilled, semi-skilled, and skilled labour and hiring Lao staff for these as well as managerial and supervisory positions, consistent with the Labour Management Plan.

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<sup>15</sup>Gender, Law, and Policy in ADB Operations: A Tool Kit (2006) and ADB's Core Labour Standards and its Handbook (2006)

Training will be provided to the most promising local workers to enable semi-skilled labourers from the local communities to be engaged with the Project. While skilled, managerial, and supervisory staff is expected to come from outside the project area, a minimum portion will be Lao citizens. In subsequent years, an increasing percentage of semi-skilled and skilled workers will be trained and hired from the local communities, while the portion of skilled and supervisory staff from elsewhere in Lao PDR will also increase.

267. Upon completion of their contracts, unskilled, semi-skilled, and skilled workers from Lao PDR who come from outside the project area will be provided transportation to Vientiane and provided transportation allowances to cover the costs of travel from Vientiane to their homes of record. In the case that there are project workers from neighbouring countries such as Thailand, Vietnam or China will be provided transport back to their countries and transportation allowances to reach their homes. Managerial and supervisory staff will be provided with transportation or transportation allowances to cover the costs of their travel to their homes of record.

For workers from affected households from within the project area, the SMO will assist with their return to living and working in their communities.

#### **5.5.8 Sub-Program 4: Skill Training for Local Residents**

268. An Occupational Skills Training program will be implemented which focuses on the skills needed for work in the construction of the Project. This will enable local residents and in particular affected people who are interested in working on the Project to attain the skills needed for semi-skilled and skilled jobs.
269. The developer will establish a training facility for the local population in these skills, with those successfully completing the program eligible for work in the Project. Priority will be given to residents from the most severely and moderately affected communities who wish to learn new skills for non-agricultural occupations. The training will be carried out by the SMO with training support from technical staff of the Project.
270. Skills training programs will focus on both land based activities and non-land based activities. Land based activities will focus on increasing income earning opportunities through increase productivity of agriculture and small livestock raising. Produce from the activities can be sold to the labour camps as food for labour or to the shops established in the villages or by Camp followers
271. Skills training program for Non Land based skills training sessions will focus on increasing the skills of people living in the project area and thereby the chances for employment and level of tasks assigned. This will be done in coordination with the main Contractors in order to align the training sessions with labour requirements by the Contractors.
272. This program will be introduced as soon as possible, prior to the start of the major construction activities to maximize benefits to the local communities.

## **5.5.9 Sub-Program 5: Community Management and Infrastructure Development**

### **5.5.9.1 Community Management**

273. Community management concerns the various communities in the labour camp and the existing communities in or proximate to the construction area. The management will:
- Build understanding among the labourers and the affected people regarding the impacts resulting from: construction activities, the influx of people, and the employment opportunities in both positive and negative manners.
  - Systematic planning in educating the communities to be able to resist possible negative social impacts, social or cultural conflicts, communicable diseases, and other problems that might arise from the influx of the large number of workers and their followers.
  - Extensive consultation and participation of the communities regarding establishing rules or preparing plans to prevent or protect the communities from those issues.
  - Set up a joint committee among the related parties, especially the affected people and workers, to implement those plans and enforce the rules

### **5.5.9.2 Infrastructure Development**

274. Good infrastructure within the construction area and the workers' camps will be considered part of good practice by the constructor and good welfare for the workers. The basic infrastructure will include these components:
- Residential accommodation for workers comprising one bed and 0.5m<sup>3</sup> of personal storage space per person
  - Canteen and kitchen
  - Shops to supply basic food, toiletries and personal items
  - Recreational areas
  - Medical facilities
  - Potable water supply infrastructure including pumping facilities and water storage areas
  - Sanitary facilities comprising a septic tank system with adequate capacity to treat wastewater from the total expected maximum population of the camp
  - Waste collection and management facilities
  - Suitable lighting for security and amenities
  - Internal roads of at least 4meters width with gravel surface
  - Emergency protection equipment including fire protection
  - Temporary erosion and sediment controls during construction, along with storm water drainage to minimize mosquito breeding

### 5.5.10 Sub-Program 6: Human Trafficking Impacts and Management

275. From the field study there were no reports of any members of households from the project area migrating to Thailand or other countries to work. From discussions with village leaders, there was no indication of human trafficking in the area. However, since this is a problem that is growing in Lao PDR, especially among children and youth, both male and female, in poor communities, it is essential that the people in the project area be made aware through village consultations, trainings, IEC materials, and on-going Project-community relations that the problem might occur, especially with the influx of many outsiders as labourers, camp followers, or those providing services to the workers.
276. Existing government laws of Lao PDR have covered the issue of human trafficking<sup>16</sup> in a certain degree:
- The Penal Code prohibits abduction and trade in persons as well as the constraint, procuring, and prostitution of persons, and the deception of people with regard to work and wages. It also has provisions against violations of children's rights, including Sections 119-120, which protect children against sexual abuse, and Section 92, which penalizes the trade and abduction of children for ransom or sale. Article 69 of the Penal Code also provides for penalties against individuals who mislead officials in sending people abroad or aid in illegal immigration.
  - These laws have been complemented by the 1991 Constitution, Article 20. The 1990 Family Law decree dictates parental responsibilities towards children, and the 1990 Labour Law, updated in 1994, prohibits forced labour and protects the rights of women and children at work, the minimum working age being 15.
  - The Law on Development in Women, promulgated in September 2004, covers human trafficking. The new law
    - criminalizes trafficking
    - provides for the protection of victims, both domestically and through international cooperation
    - prohibits the punishment of the victims of human trafficking upon their return to Lao PDR
    - stipulates specific penalties for trafficking, including the death penalty for the most egregious forms of trafficking, and those that lead to the loss of life or permanent disability
    - defines trafficking and recognizes and guarantees the rights of victims of human trafficking
277. Laos also prohibits human trafficking under its Penal Code Article 134 revised in 2006. The Labour Law (1994) prohibits forced labour (Article 4), prohibits employment of women in potentially injurious work and in night work (Article 33), and prohibits strenuous work during and immediately after pregnancy (Article 34). Furthermore, Lao PDR is a signatory

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<sup>16</sup>Sources: [http://www.humantrafficking.org/countries/lao\\_pdr/government\\_laws](http://www.humantrafficking.org/countries/lao_pdr/government_laws)

of the International Trafficking in Persons Protocol under the Transnational Organised Crime Convention (2003). It signed the ASEAN Declaration Against Trafficking in Persons Especially Women and Children (29 November 2004), as well as an MOU on cooperation against trafficking, the COMMIT Memorandum of Understanding on Cooperation Against Trafficking in Persons in The Greater Mekong sub-region on 29 October 2004.

278. To raise awareness of the issue the SMO will work with local Lao People's Revolutionary Youth Union, the Lao Women's Union (LWU) and local authorities of Ministry of Labour and Social Welfare (MLSW) Ministry of Public Security Lao PDR on these activities:
- Set up working group on prevention of human trafficking.
  - Create multimedia to educate the community on the problem, solutions and preventive measures.
  - Allow full participation of the affected people of all age groups to discuss and learn about the issue
  - Seek assistance from local residents to report any suspected cases of human trafficking, whether of people from the communities or of people brought into the area
  - Follow up with local authorities in the arrest and prosecution of any person in the Project found to be involved in human trafficking

#### **5.5.11 Sub-Program 7: Conflict Resolution**

279. A Workers Code of Conduct will be established for all workers and Employees working on the Project and will be included in the contracts provided by Contractors (and their subcontractors) to their employees. It will function as a preventive measure and to provide the foundation to resolve socially inappropriate behaviour and related matters, it will be agreed that:
- Workers shall be made to fully understand and observe rules of work. Rules as specified under laws and regulations, the internal work rules of the labour unit and the employment contract signed between workers and their employer.
  - To be legally enforceable, the internal work rules of any labour unit shall be established in conformity with the labour law and regulations of the Lao PDR and approved beforehand by the labour administration.
  - The internal work rules of a labour unit shall be made known to and understood by all workers and posted openly so that everybody may be informed.
  - Workers who breach work rules and to whom three warnings have been served without any positive change, may be transferred temporarily to work at another workplace or forced to resign. Where workers intentionally cause damage to the property of a labour unit, they shall be required to provide compensation for such damage.
280. Vice-versa, the Project will establish several institutional measures to ensure workers' rights are followed by the Company, contractors, and subcontractors as instructed by international

and national standards as well as by the Concession Agreement; the latter states clearly that it is the Company's responsibility to ensure compliance of contractors and subcontractors. The Project will above all engage in two institutional structures:

- i. The Project will support the Lao Labour Union (LLU) to establish a Project branch in the construction area. Constant consultation between Company and LLU will allow to identify compliance breaches by contractors and subcontractors; then LLU and company will engage in conflict resolution by mediating and investigating the case and finally instruct the contractors and subcontractors to comply accordingly; with further penalties in case of serious and/or repeating compliance breaches.
- ii. The Project will establish the Contractor Compliance Committee with all divisions of the Company involved (ESD, Civils, HR, Procurement) to proactively engage in monitoring of contractors' plans and activities and solve issues found. It, too, will cooperate with the LLU as outlined above.

### ***5.6 Project Labour Strategy/Measures for Employees/Workers' Health***

281. Although these components are included in the Environmental Management Plan, they are mentioned here because the Social Management Office (SMO) of the Contractor's Environment and Social Department (EDS) will be responsible for monitoring their implementation and assuring the training of employees and workers is adequate to carry out these activities safely. They are also included here because they can have an impact on the health and safety of communities near and immediately downstream the construction area and workers' camp:

- Camp Sanitary Sewage Program
- Solid Waste Management Program
- Hazardous Waste Management Program
- Care and Surveillance of Communicable Diseases
- Emergency Treatment and First Aid for Major Accidents/Injuries
- Protective Equipment for Workers/Employees
- Annual Physical Examination for Workers
- HIV/AIDS Awareness Program
- Campaign against Social misbehaviour
- Prevention and Control of Sexually Transmitted diseases

282. Details of each of the plans are presented below.

### 5.6.1 Health Sub-Program 1: Health program for Construction Workers and their Followers

283. **Objective:** The objective for the health program for construction workers and their followers is:
- To ensure preventive and curative health measures to provide safeguards and assure the safety of the workers and their families.
  - To prevent and, if prevention not possible, to mitigate negative health effects due to construction work. This concerns both occupational health and health issues involving the mingling of project staff, workers, and camp followers with the local population.
284. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Committee under the lead of SMO.
285. **Beneficiaries:** Workers
286. **Activities:** Most of the activities in the construction workers health program will be related to prevention of the increased risks of accidents and injuries, occupational health hazards and transmittable diseases such as malaria, ARI, diarrhoea, and sexual transmitted diseases. It will also be important to provide good medical care when accidents, injuries, as well as other health problems occur. To be assured that the activities will be successful there must be health facilities support from the construction company. Regular health information and education will be given to increase the awareness and prevention for construction workers and their families by the health staff working from the project health station. Health Information could also be contracted through and coordinated with the district or provincial Information Education Communication (IEC). The information will be via training, radio (loud speaker) messages, pamphlets, and leaflets. The project staff, workers and camp followers will also be informed about the health risks that they could be exposed to, or could bring to the local people. There will be increased risk of malaria outbreak because of the large number of construction workers moving in to the area. There will be a number of measures taken to prevent and, if that is not possible, to detect and treat new cases. All the workers will be provided with long lasting impregnated bed nets. At least twice a year, workers will be given training on how to prevent malaria. Spraying residual insecticide on the walls of the camp site to eliminate mosquito vectors will also be done at least twice a year. The project health centre<sup>17</sup> will be provided with equipment for diagnostic tests and drugs for the treatment of malaria cases.
287. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.

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<sup>17</sup> The Project Health Center is also open to the general population living near the camp sites and therefore also mentioned in Chapter 4 of the SDP.

288. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)				
			1	2	3	4	5	1	2	3	4-8	>8
Prevention of the increased risks of accidents and injuries, occupational health hazard and transmittable diseases through the different activities outlined above	Monthly	+	+	+	+	+	+					
Provide good medical care through the establishment or upgrade of health facilities	Once	+										
Support health facilities by providing initial equipment for the health centres	Once	+										
Disseminate health information and education to increase the awareness and prevention	Twice a year		+	+	+	+	+					
Provide long lasting impregnated bed nets	Once											
Spraying residual insecticide	Twice a year	+	+	+	+	+	+					

Table 17: Work Plan Health Program Construction Workers and their Followers

**5.6.2 Health Sub-Program 2: Camp Sanitary Sewage Program**

289. This is included in the EMP, and will need to be monitored by the EMO of the ESD.

290. **Objectives:**

- To provide an adequate number of toilets at the sites.
- To treat waste from toilets via septic tank systems
- To reuse and recycle water as much as possible.
- To ensure waste water does not present health hazards or potential for transmission of diseases such as malaria, dengue or dysentery
- To ensure camp followers also have adequate sanitation and waste water management systems

291. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Management Committee under the lead of EMO.

292. **Beneficiaries:** Workers, Camp Followers

293. **Activities:**

- Install water efficient plumbing and toilet facilities.
- Install septic tank systems with adequate capacity to treat wastewater at each construction work camp.
- A sewage treatment plant will be in accordance with the requirements
- The quality of effluent from wastewater treatment plant will be monitor regularly.
- The effluent from any septic tank system that requires emptying will be transported off-site to a suitable treatment facility.
- Reuse of grey water for dust suppression or watering of landscaping works.

294. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.

295. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Install water efficient plumbing and toilet facilities.	Once	+											
Install septic tank systems	Once	+											
Establish a sewage treatment plant	Once	+											
Regularly Monitor the quality of effluent from wastewater treatment plant	Monthly		+	+	+	+	+						
Transported off-site to a suitable treatment facility of effluent from any septic tank system	Monthly		+	+	+	+	+						
Reuse of grey water for dust suppression or watering of landscaping works.	Daily		+	+	+	+	+						

Table 18: Work Plan Camp Sanitary Sewage Program

### 5.6.3 Health Sub-Program 3: Solid Waste Management Program

296. This is included in the EMP, and will need to be monitored by the EMO of the ESD.
297. **Objectives:**
- To set up waste disposal areas
  - To collect and dispose solid wastes at appropriate waste disposal areas.
  - To develop waste management plan
298. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Committee under the lead of EMO.
299. **Beneficiaries:** Workers, Camp Followers
300. **Activities:** At each construction site, the following facilities will be provided:
- Bin(s) for general domestic litter and rubbish
  - Storage area for combustible solid waste
  - Storage area for non-combustible, non-putrescible solid waste
  - Storage area for non-combustible, putrescible solid waste
  - A waste disposal area plan(s) will be prepared prior to the start of construction, which will contain the following details for each waste disposal area(s):
    - Site boundaries and layout
    - Details of membrane type to be used
    - Placement schedule for waste, including details of progressive covering and rehabilitation of waste cells
    - Plans for the final landform of the completed waste disposal area
    - Location of any groundwater monitoring wells
    - Opportunities to maximize the reuse and recycling of waste products will be identified and maximized as part of all construction activities. Specific opportunities that will be considered include:
      - Reuse of grey water for dust suppression or watering of landscaping works
      - Reuse of construction debris/overburden for landfill stabilisation and covering
      - Reuse of spoil for development of construction platforms for project components
    - All construction activities will be undertaken in a manner that minimises the generation of waste as far as practical. This concept will be incorporated into all construction site planning and activities. Examples of measures that could be implemented include:
      - Minimizing spoil generation and maximizing cut and fill balance
      - Minimizing amount of vegetation clearance
      - The burning of waste materials will only take place under the following conditions:
        - Only those materials identified as Group A1 waste (combustible solid waste)
        - Burning will only be undertaken in the presence of a trained fire protection officer.
        - Prior to any burning, the ESMMU will be notified.

- Burning will not be undertaken during severe wind conditions
  - Appropriate fire protection equipment will be available on-site during the burn.
  - Burning will be undertaken at a safe distance from vegetated areas.
  - Burning will not be undertaken within 5 km of a village.
  - Following completion of the burn, the trained fire protection officer will inspect and certify that the fire has been extinguished
  - Group A2 and Group A3 waste will be removed from construction sites and transferred to the nearest waste disposal area in an orderly manner in accordance with the sequence identified in the waste disposal area plan.
  - When parts of the waste disposal area are full, they will be covered by a minimum depth of 1.5 m of soil, and then re-vegetated.
  - Workers will be trained in the requirements for waste separation.
301. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.
302. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)						
			1	2	3	4	5	1	2	3	4-8	>8		
1) Provide the facilities at each construction site	Once	+												
2) Prepare a waste disposal area plan(s)	Once	+												
3) Maximize the reuse and recycling of waste products. These will be identified and maximized as part of all construction activities.	Monthly		+	+	+	+	+							
4) Undertaken all construction activities in a manner that minimizes the generation of waste as far as practical.	Monthly		+	+	+	+	+							
5) Burn waste materials under appropriate conditions:	Monthly		+	+	+	+	+							
6) Remove Group A2 and Group A3 waste from construction sites and transfer to the nearest waste disposal area.	Monthly		+	+	+	+	+							

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)						
			1	2	3	4	5	1	2	3	4-8	>8		
7) Cover full waste disposal areas by a minimum depth of 1.5 m of soil, and then re-vegetate.	On each event							+						
8) Train workers in requirements and methods for waste separation.	Once	+												

Table 19: Work Plan Solid Waste Management Program

#### 5.6.4 Health Sub-Program 4: Hazardous Waste Management Program

303. This is included in the EMP, and will need to be monitored by the EMO of the ESD.
304. **Objectives:**
- To set up a single, central hazardous waste storage area.
  - To minimize pollution that may cause from the use of hazardous materials.
  - To develop and implement an emergency plan for hazardous materials.
305. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Management Committee under the lead of EMO.
306. **Beneficiaries:** Workers
307. **Activities:**
- A hazardous waste storage area plan will be prepared prior to start of construction. The plan will include details on:
    - Site boundaries and layout
    - Construction details including bunding and provision of smooth, hard, non-porous floors with no cracks or spaces that might allow spilled wastes to fall into inaccessible areas
    - Emergency protection equipment to be provided
    - The following requirements will be met at the Hazardous Waste Storage Area:
      - There will be no sources of ignition permitted within 50m of the perimeter of the storage area (such as heat, sparks, and flames).
      - Within the storage area, liquid wastes will be stored in leak proof, securely sealed containers.
      - Solid wastes will be stored in covered receptacles or bins.
      - Wastes will be separated to allow easier disposal, e.g., keep oils and solvents separate.
      - Storage containers will be checked periodically for signs of leakage or damage.
      - Containers will be adequately and legibly labelled "Hazardous".

- All waste chemical movements to the storage site will be recorded on the Waste Chemical Register in order to track and reconcile quantities.
  - All waste chemicals stored in the storage area will be accompanied by their material safety data sheet (MSDS) where one exists
  - Unused commercial products containing a hazardous substance will not be discarded and all reasonable effort will be made to use them until their container is completely empty;
  - Spill kits will be located at the storage location in case of a spill.
  - All chemicals and waste considered as potentially Hazardous Materials will be registered in order to follow up type, quantities stored, quantities used or generated. Movements from storage and to waste disposal site will be registered.
  - Safety procedures applicable to the handling and use of Hazardous Materials will be established and become a part of the training program.
  - Emergency response procedure will be developed and displayed at each construction site.
  - All workers responsible for handling hazardous waste will receive appropriate training in accordance with general good practices recommendations and emergency response procedure.
308. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.
309. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
1) Prepare a hazardous waste storage area plan.	Once	+											
2) Install all of requirements in the Hazardous Waste Storage Area.	Once	+											
3) Registered all chemicals and waste. Register movements.	Yearly		+	+	+	+	+						
4) Establish safety procedures applicable and set to training program.	Yearly		+	+	+	+	+	+					
5) Develop emergency response procedure and display at each construction site.	Once	+											

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
6) Train all workers responsible for handling hazardous waste	Yearly	+	+	+	+	+	+	+					

Table 20: Work Plan Hazardous Waste Management

### 5.6.5 Health Sub-Program 5: Care and Surveillance of Communicable Diseases among Workers

310. This is included in the EMP, and will need to be monitored by the SMO of the ESD.
311. **Objectives:** To prevent the spread of communicable diseases
312. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Committee under the lead of SMO.
313. **Beneficiaries:** Workers and Camp Followers
314. **Activities:**
- Install mosquito screens in windows and doors in all buildings in the camp
  - Set up a training program on communicable disease for workers
  - Control of mosquito and pests by
    - effective storm water drainage system to avoid stagnant water
    - keeping storm water drains and borrow pit free of vegetation
    - minimizing presence of containers full of water
    - removal of discarded items that could contain water
    - covering waste water pits and drainage
  - providing impregnated mosquito nets to all workers and their families
  - Safe application of pesticides when necessary
  - Solid waste, water supply and sewage system in the camp are to manage properly and maintain in a good condition through regular monitoring according to the required standards.
  - At least 80% of staff at any time has received introduction course, Posters printed and posted, Leaflets printed and distributed
  - Check monthly number of medical checks compared to number of staff recruited
  - Also check quarterly number of pre-employment medical checks and number of routine annual medical checks
  - Maintain records of the incidence of various diseases
315. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.

316. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Install mosquito screen in all buildings in the camp	Once	+											
Set up a training program on communicable disease for workers	Yearly		+	+	+	+	+						
Control of mosquito and pests	Yearly		+	+	+	+	+						
Safe application of pesticides on walls when necessary	Twice a year		+	+	+	+	+						
Maintain and monitor solid waste, water supply and sewage system.	Yearly		+	+	+	+	+						
At least 80% of staff has received introduction course, Posters printed and posted, Leaflet printed and distributed	Yearly		+	+	+	+	+						
Check monthly number of medical checks	Monthly		+	+	+	+	+						
Check quarterly the number of pre-employment medical checks and number of routine annual medical checks	Quarterly		+	+	+	+	+						
Records of disease incidence	Monthly		+	+	+	+	+						

Table 21: Work Plan Care and Surveillance of Communicable Diseases among Workers

### 5.6.6 Health Sub-Program 6: Emergency Treatment and First Aid for Major Accidents/Injuries

317. This activity is included in the EMP, and will require monitoring by the SMO of the ESD.
318. **Objectives:** To respond promptly and successfully in the event of an emergency or a major accident
319. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Management Committee under the lead of SMO.
320. **Beneficiaries:** Workers

321. **Activities:**

- Provide sufficient medical facilities and staff at the project centre, the campsite, and the worksites sites (both permanent and temporary)
- Provide first aid facilities and first aid response team specifically trained and assigned in groups of 2 or 3 to different sites
- Registration of personnel attending first aid training and subsequent job assignments, to know where the trained personnel are working
- Ensure that the staff who are responsible for explosive, chemical and hazardous waste management have attended appropriate training
- Monitor the availability of First Aid equipment and assure it is fully supplied.

322. **Cost estimate** (USD): Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.

323. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)						
			1	2	3	4	5	1	2	3	4-8	>8		
Provide medical facilities to staff	Once	+												
Provide first aid facilities and specially trained teams among the employees/workers	Once	+												
Registration of personnel attending first aid training and subsequent job assignment	Yearly	+	+	+	+	+	+							
Ensure staff responsible for explosive, chemical and hazardous waste management have attended training	Yearly	+	+	+	+	+	+							
Monitor available First Aid equipment and keep fully supplied.	Yearly		+	+	+	+	+							

Table 22: Work Plan Emergency Treatment and First Aid

### 5.6.7 Health Sub-Program 7: Protective Equipment for Workers/Employees

324. This activity is included in the EMP, with monitoring required by the SMO.

325. **Objectives:** To safeguard workers/employees from dangers/hazards at the workplace

326. **Location:** at all time at workplace

327. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance

Committee under the lead of SMO.

328. **Beneficiaries:** Workers

329. **Activities:**

- Provide sufficient and proper PPE as required by the law and by safeguard policies for each worker at the workplace
- Training on the proper use of PPE, particularly new workers/employees, including inform them that wearing PPE is one of the strict rules of work
- Frequent Inspection to assure workers/employees comply with the rule. These will not be scheduled regularly, but done frequently and without advance notice

330. **Cost estimate (USD):** Costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.

331. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Provide sufficient and proper PPE	Once	+											
Training new workers/employees the proper use of PPE	Yearly, or as needed		+	+	+	+	+						
Frequent Inspection(not regularly scheduled)	Often		+	+	+	+	+						

Table 23: Work Plan Protective Equipment for Workers/Employees

### 5.6.8 Health Sub-Program 8: Annual Physical Examination for Workers

332. **Objectives:** To safeguard the health of the workers, prevent communicable diseases and minimize adverse health impacts

333. **Location:** at medical centre in the camp, prior to employment and then annually

334. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Management Committee under the lead of SMO.

335. **Beneficiaries:** Workers

336. **Activities:** Provide medical check-ups for all workers and keep the records of their check-ups in systematic records throughout employment

337. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.

338. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Medical check-ups	Yearly	+	+	+	+	+	+						

Table 24: Work Plan Annual Physical Examination for Workers/Employees

### 5.6.9 Health Sub-Program 9: HIV/AIDS Awareness Program for Workers/Employees

339. **Objectives:** To educate the workers on HIV/AIDS and protection from the disease
340. **Location:** at the camp
341. **Responsible Agency:** Contractor, with monitoring by the Project's Contractor Compliance Management Committee under the lead of SMO.
342. **Beneficiaries:** Workers
343. **Activities:** Set a training program for all workers at pre-employment, and place posters in the camp to keep them aware of the risks and means of protection. Monthly monitoring of any disease transmission alerts.
344. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated SDP.
345. **Work Plan:**

Activity	Frequency	P	Construction Phase (year)					Operation Phase (year)					
			1	2	3	4	5	1	2	3	4-8	>8	
Set a training program	Yearly		+	+	+	+	+						

Table 25: Work Plan HIV/AIDS Awareness Program for Workers/Employees

### 5.6.10 Health Sub-Program 10: Campaign against Social misbehaviour

346. Whenever a large group of people stays in the same place for a long period, such as a worker's camp or work place, plans will be made to control social misbehaviour, to protect the property, health, and welfare of the majority of the people. These will:
- Develop and disseminate social rules regarding social misbehaviour such as gambling, drunkenness, drug use, fighting, and other undesirable activities, whether in the work area, worker's camp or nearby communities. Coordinate with Police Office on illegal activities, such as drugs.
  - Provide education to workers on maintaining quality of life and family cohesion by avoiding gambling, drunkenness, illegal drugs, and other undesirable activities, with the focus on raising moral attitudes through cultural or social practice.

- Prohibit gambling, drunkenness and illegal drugs in work places, with regular promotion of this policy through meetings, posters or hand-outs.
- Encourage acceptable leisure activities during free time by providing sport equipment and playing fields, by setting up clubs or associations for particular leisure interests, and by providing entertainment such a places to watch movies.

### **5.6.11 Health Sub-Program 11: Prevention and Control of Sexually Transmitted diseases**

347. To protect worker's health and safety, the contractor will be required to prepare a health and safety plan. Workers will receive health and safety training including disease prevention, hygiene and management, which will include these activities related to sex workers (SW) and sexually transmitted diseases:

- Create a supportive environment for behaviour change among SWs and their clients.
- Increase awareness among decision-makers of the risks confronting SWs and clients and the factors impeding efforts to reduce these risks.
- Ensure that SWs and their clients have correct knowledge on HIV/AIDS and other STDs, and have the motivation, power and means to act on their knowledge.
- Promote "100% condom use", including provision of free condoms and social marketing programs through non-traditional outlets.
- Improve knowledge about behaviour, practice and networks of SWs and their clients in order to monitor effectiveness of existing interventions and to guide development/modification of potential interventions.
- Increase understanding of contextual factors and risk behaviour, which contributes to the vulnerability of mobile populations and their families in relation to STDs and HIV/AIDS.
- Reduce the vulnerability of mobile populations and their families to STDs and HIV/AIDS by providing health education and sanitary facilities as well as engaging with local hotels and restaurants on awareness campaigns and the availability of condoms
- Disseminate to young people the knowledge through seminars and IEC materials to avoid HIV/AIDS, other STDs and drug abuse.

## **5.7 Summary of Program**

### **5.7.1 Roles and Responsibilities of Various Institutions**

348. The project owner through the ESD will be responsible for overseeing the tasks outlined above. The Labour Management Working Group (LMWG) under the Resettlement Management Unit (RMU) Bolikhamxay Province (where the construction site is located) will provide support as needed, especially in coordinating with authorities from provincial or

district offices.

## 5.7.2 Overall Implementation Schedule other than monitoring

349. Scheduling was based on two criteria: readiness of the affected people and correspondence with the full schedule of the Project, in particular the construction schedule. This schedule will be adjusted if required, based on adaptive management practices.
350. NN1PC will prepare and submit to ADB the detailed Labour Management Plan, in particular containing the NNP1PC Recruitment and Employment Policy, Policy on Freedom of Association, Policy on Contractors and other Providers of Goods and Services regarding Labour Standards, Skills Training Program for Local Residents, Direct Workforce Local Labour Recruitment Plan, Workers Code for Appropriate Behaviour, including budget and implementation schedule for activities under each subprogram to be implemented in Year 1 of the Construction Phase prior to the start of main construction activities.

*Unit: Number of Activities*

Work Plan	Pre-Construction	Construction Phase (year)					Operation Phase (year)			
		1	2	3	4	5	1	2	3	...
1) Health : Health Training & Education (Unit: Number of trainings)										
Zone 1		2	2	2	2	2	2	2	2	
Zone 2 UR		6	6	6	6	6	6	6	6	
Zone 2 LR		6	6	6	6	6	6	6	6	
Zone 3		6	6	6	6	6	6	6	6	
Zone 4		3	3	3	3	3	3	3	3	
Zone 5		6	6	6	6	6	6	6	6	
2) Occupational Skill Development : Land base & Non Land base for skill training sessions (Unit: Number of trainings)										
Zone 1		3	3	3						
Zone 2 UR		12	12	12						
Zone 2 LR		12	12	12						
Zone 3		12	12	12						
Zone 4		6	6	6						
Zone 5		12	12	12						

Table 26: Overall Labour Management Plan Implementation Schedule other than monitoring<sup>18</sup>

<sup>18</sup> NN1PC will prepare and submit to ADB at least 30 days prior to the start of main construction activities, the detailed Labor Management Plan, in particular containing the NNP1PC Recruitment and Employment Policy, Policy on Freedom of Association, Policy on Contractors and other Providers of Goods and Services regarding Labor Standards, Skills Training Program for Local Residents, Direct Workforce Local Labour Recruitment Plan, Workers Code for Appropriate Behavior, including budget and implementation schedule for activities under each subprogram to be

### 5.7.3 Costs and Budgeting

351. Part of the proposed activities for the Labour Management Plan related to aspects such as the workers' health and living conditions are covered under sections in the EMP and are directly financed by the Contractor, with follow up by both the EMO and SMO. Additionally, SMO has included a lump-sum of 50,000USD for LMP-related costs (e.g. coordination with the Lao Labour Union). Staffing costs are included in the overall SMO staffing budget (see REDP).

352. The skill development training budget is indicated in Table 27

No	Activity	Number of Trainings required	Training Unit Cost (USD)	Total Cost (USD)
1	Occupational Skill Development Trainings	400	1,200USD	480,000

Table 27: Skill Development Training Budget Labour Management Plan

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implemented in Year 1 of the Construction Phase.

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## CHAPTER 6 - Community Development Plan

### 6.1 Introduction

353. The community development plan focuses on several of the key cross-cutting issues for the communities throughout the project area. These communities will be facing enormous transformations, with impact from and access to the commercial market, external social and cultural forces, and integration in a global system. The purpose of the community development plan is to help prepare villagers for these transformations, yet at the same time enable them to maintain their sense of community and culture, and to earn adequate income within their communities, without having to migrate to the city if they would like not to.
354. It should also be noted that the community development plan, like the rest of the SDP, is intended to cover those matters that are not part of resettlement or compensation and are not part of the ethnic development plan.
355. The plan consists of:
- i. Gender Action Plan;
  - ii. Programs for Youth and Children; and,
  - iii. Cultural Awareness/Heritage Preservation Program.
356. The community development plan focuses on aspects to help improve the community as a whole, to lift up the quality of life, standard of living, and income of affected people. NNp1 will deliver to ADB the updates to these subplans, including budget and detailed implementation schedule, at least 60 days prior to the beginning of each calendar year.

### 6.2 Gender Action Plan

#### 6.2.1 The Requirement for a plan

357. Promoting gender equality is an important national goal, as reflected in the national Constitution and in the framework of the national machinery for the advancement of Lao Women.
358. The enabling environment for gender equality in Lao PDR consists of laws, international conventions, policies, and institutions that favour and promote the enhancement of women's status. The Lao Constitution and various laws guarantee gender equality, and the National Growth and Poverty Eradication Strategy (NGPES) - the government's national development plan - highlights gender as a cross-cutting priority.<sup>19</sup>

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<sup>19</sup> Lao PDR. November 2005 Gender Profile. Gender Resource Information & Development Center (GRID) With the Support of the World Bank.

359. Furthermore, Gender is an important aspect of Development as outlined in ADB's Gender and Development Policy approved in May 1998. It highlights that gender is a crosscutting issue influencing all social and economic processes. Thus, mainstreaming of gender concerns in all project components rather than segregated stand-alone women activities are the preferred option, even though in special circumstances programs focusing exclusively on women continue to be promoted and processed. The Project will adapt to this dual approach and will implement women-specific activity programmes above all regarding health, skills development, and employment, while at the same time ensuring gender mainstreaming, above all regarding consultations, entitlements and land tenure. Gender-specific indicators are included in the monitoring programme, and are listed in Section 6.2.6.2 and 7.3.

## **6.2.2 Baseline Gender Conditions**

### **6.2.2.1 Roles of Women**

360. Chapter 17 of the SIA on Gender describes results of the gender analysis conducted by the Project, namely that the roles of women in the project area cover agriculture, foraging, collecting forest products, handicraft production (especially cloth and clothing), child rearing, and trade. It also describes the household tasks of women, such as care of the home including taking care of the children, old and the sick, husking and milling rice, cooking, collecting firewood, and fetching water.

### **6.2.2.2 Constraints faced by women in the project area**

361. Despite the laws of Lao PDR stipulating strict gender equality, the reality in most rural communities, and especially in those of ethnic minorities, is quite different.
362. Women in most of the communities of the project area have less voice in decision making. In patrilineal and patriarchal ethnic cultures, such as Hmong, gender equality becomes a challenge. This was obvious in the village meetings as part of the public consultation process. Women had to be encouraged to speak up and mainly provided opinions and information during focus group meetings. In order to get the opinions of women in the villages, the study team had to actively seek out and talk with women separately.
363. *Decision-making* - Though women have dominant roles in the household economy, this is not reflected in their decision-making role or in the influence they have on overall household management. The traditional division of responsibilities in families in Laos gives men the greater voice in household affairs (at least publicly) and in decision-making.
364. Men tend to represent the household at the village level and take part in decision-making bodies such as administrative, professional and political organizations at different levels.
365. There is evidence to suggest that when new technologies are introduced such as tractors, fertilizers, rice mills, etc. men not only take over the use of such new technology but they also decide how, when and for what such products should be used. Women seem to have a subtler, indirect influence on decision-making within the household in the Laos family structure.

366. *Roles in Political and Social Participation* - The main channel for women's participation in the broader political and social life is through the Lao Women's Union (LWU). The LWU is an official organization with branches in every village, district, province, and at the national level.
367. Village governance consists of a Village Headman, Deputy Village Headman, and members of the Local Militia, the Local Police, the Lao Youth Union, the Lao Women's Union, and the Front for Construction. While women are of course active in the LWU and younger women also involved in the Lao Youth Union, their roles or involvement in the other positions or groups is very limited.
368. *Ownership rights* - Under the laws of Lao PDR, both men and women enjoy equal access to land. Nevertheless, customary practices - principally through inheritance - over-ride official laws. Women in many ethnic minority villages, and this includes many Hmong communities, do not have rights to property and land. Land rights are with the male members of the family. If a husband dies, the land reverts to the husband's family, not to the wife. The wife remains widowed and part of the husband's family, or she marries one of her dead husband's brothers. Thus, the actual patterns of ownership depend on the traditional practices of the different ethnic groups.
369. Under the bilineal inheritance practices of the majority Lao-Tai groups, both daughters and sons are able to inherit land and other property, with the decision on who inherits what depending on the parents. However, it is customary for the youngest daughter to inherit a larger portion of the family land and also the home since she usually remains behind to care for the parents, even after she is married. Also, it is tradition for newlywed couples to move into the house of the bride's parents. The groom's parents will give livestock and other moveable property to the new couple. The new couple will help on the bride's family's farm for a few years, until they set up their own household, usually after the birth of their first child. Traditionally, the parents of the wife will give the young couple land when they set up their own household. Both these traditional practices mean that women in these ethnic groups often inherit more land and have more control over the land than the men.
370. Most of the ethnic minority groups, including the Hmong and Khmu in the project area and the resettlement host communities, follow patrilineal inheritance. Property is passed from father to son. Newlywed couples move in with the husband's family, and they often will remain there as part of an extended family, even after their own children are born. The men own and make decisions concerning the land. Few of the women inherit any land from their families.
371. Official land registration has been found biased toward males, even in the Lao-Tai communities where females have inherited much of the land. As reported by the Gender Resource and Information Development (GRID) Center, in a study of women's rights to land, although the wives inherited 40 per cent of the land, only about 16 per cent of that land was registered in the wives' names. In contrast, only some 18 per cent of the land was inherited from the husbands' families, but fully 58 per cent of the land was registered solely in the

husband's names. Less than 10 per cent was registered in both names.<sup>20</sup> The project is aware of this bias of the bureaucracy toward the males of the households, and so will assure that the women in the households, especially in the resettled communities, are given adequate recognition of their rights to the land and adequate protection of their access to the new lands.

372. *Education* - As also noted in the SIA, a significant proportion of those in remoter communities are not and have never been in school. When choices are made to send only some of the children to school, whether because of cost or distance from the community, girls are not likely to be chosen. When children are kept at home to help with family chores, girls are usually the first to be taken out of school to help at home.
373. Women from ethnic minorities tend to have much lower levels of formal education, and are less likely to speak or understand Lao language, additionally restricting their ability to interact with the majority Lao culture and administrative structure.
374. There are more illiterate Lao women than men. Causes of female illiteracy vary across provinces and among the different ethnic groups, but poverty, distance, costs, and traditional beliefs tend to be the main factors. Other factors include the burden of household chores, early marriage or pregnancy.
375. About 35 per cent of primary level students eventually enrol in secondary education but only about 5 per cent complete the full six years. Vocational training opportunities are limited, and less than 5 per cent of Lao children go to university. Again, very few of even these small proportions of higher level students are ethnic minority girls.
376. *Health Care* - As already noted in Chapter 4 of the SIA, although access to health care is limited in many rural communities, the government has made the provision of health services a top priority. Information on health facilities presented in the SIA on the conditions in each of the zones and communities of the project area confirms this: only a few of communities have health centres; most of the others have village health volunteers. The farther downstream the communities lie and the nearer they are to better transportation and infrastructure, the more health facilities and access to health care are available. Additionally, some ethnic groups have particular customs and practices related to nutrition, e.g. during pregnancy and after childbirth, which may adversely affect the health of mother and child.
377. The main gender-specific health concerns are prenatal health, childbirth, infant and child health, and infant and child nutrition. According to the local district health officials, health conditions in the project area, including those for women and children, are typical of the rest of districts, and in the case of the downstream communities in Pakxan nearer to the Mekong River the facilities and conditions are even better than average.
378. Objectives of the Gender Action Plan are:

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<sup>20</sup> GRID, "Lao PDR Gender Profile" 2005, p. 41

- i. Promote the realization of gender equity, basic human rights and women rights according to the laws of Lao PDR
- ii. Ensure gender equity in all compensation and mitigation measures, including concerning land tenure, cash compensation payments and joint husband and wife names on bank accounts, tenure documents, etc.
- iii. Promote education for girls as well as skills and capacity building for women
- iv. Encourage women to participate in income generating activities, both non-land based and land based, as tools to eradicate poverty. This will include working with local, usually male, extension workers to consider women's contribution to the agricultural economy, and to actively seek women's opinions and inputs on potential livelihood activities in the rural setting
- v. Link the infrastructure development in the project area and strategy to reducing the back-breaking tasks of women and girls, such as fetching water, fodder, and firewood
- vi. Promote awareness on human trafficking and HIV/AIDS
- vii. Promote women's roles in decision making and in representing the community
- viii. Actively engage women and girls' involvement in the community health programme
- ix. Gender-disaggregate all project-generated data and information, to enable equity monitoring over time
- x. Train Company staff on Gender sensitivity and regard it as an essential qualification for employment and promotion

### **6.2.3 Scope**

379. The target population or beneficiaries of the plan are women and girls residing in the project area, especially those who reside in Sub-zone 2LR and Zone 3, the areas which face severe impacts, and Sub-zone 2UR, which faces moderate impacts.

### **6.2.4 Sub-Program 1: Gender Mainstreaming**

#### **6.2.4.1 Gender Balance Targets**

380. Gender Balance Targets are outlined below, and quantified in Section 6.2.6.2 and 7.3:
- Improved participation of women in decision making positions or activities of the communities
  - All girls to complete at least the mandatory level (grade 5) of primary school and should at least conclude secondary school as well

- Encourage parents to plan for the education of their children
- Enhance skills and capacity of women and promote roles of women in income generating activities, family financial management and other family management tasks
- Secure equity in tenure documents for replacement housing and land
- Ensure gender equity in procedures for cash compensation
- Project to have open positions for local women.

381. In order to meet these targets, the Project will (i) use gender specific data and gender disaggregate all data collection, entry and analysis; (ii) increase women's activities in new areas; (iii) increase women's voices and authority in village level activities; (iv) support more women's representation in leadership and decision-making positions. The intended results are:

- improved girls' and women's health
- improved gender equity in legal tenure of property and land
- reduced workloads of girls and women
- increase women's access to and control over resources
- increase women and girls' levels of education and literacy

#### **6.2.4.2 Gathering and Applying Gender Specific Data**

382. Under the supervision of the ESD, information and statistics regarding gender for all of the development plans of the Project will be further updated, collected and analysed to fulfil the targets of those plans. Local women will be included as part of the development team.

#### **6.2.4.3 Requiring Joint Spousal Authorization and Receipt**

383. The Project promotes the joint spousal authorization and receipt in all cases, as well as ownership rights to properties, rights to receive compensation, rights to participate in training or any development activities. Husband and wife must be present when signing documents or receiving compensation, and both give their signatures or thumbprints for those who cannot write their names, on any legal papers or claims. Where compensation payment is made into bank accounts, the account will be opened with the assistance of the Project in both the husband and wife's joint names. Land titles will be issued in both husband's and wife's name or in case of a second or third wives in Hmong households with more than one wife, the respective wife can choose to put her name as well as the names of one name of another family member, to be selected by the wife, on the document. Further details can be found in the REDP and the Detailed Entitlement Matrices.

#### **6.2.4.4 Support Women's Skills Development and Girls' Schooling**

384. Support of Women and Girls' Schooling will be facilitated by:

- Establishing nursery schools to reduce tasks of mothers and allow the mothers to participate in income generating activities. The Project will support the establishment of village funds via investing in economic opportunities (construction of community-

owned market stalls for renting out) to finance these schools on a sustainable base, even after the Project's programs are concluded. While the Project will provide advice and awareness training on the advantages of nursery schools, it remains the prerogative of the PAPs to assess if they would like to engage in such a project. Improvement of labour saving devices in the home will also help elder sisters to stay in school, since they will not be required to stay home to take care of their younger siblings or share in labour intensive activities, such as carrying water.

- Holding workshops on family planning for both men and women on separate sessions, reproductive health, the benefits of having fewer children, and education planning for children. Lessons learned from the UNFPA reproductive health programme will be fed into Project activities, and health materials in Hmong language from the programme will be accessed.
- Promoting the program of having all girls finish at least the mandatory level of primary school (Grade 5) into the community agenda, and preferably completing secondary level. The program will consist of education awareness programs and support programmes for primary-school-age girls of vulnerable households. LWU and related parties must help promote the plan to gain wide acceptance, and emphasize that it is not an issue of a particular family but of the whole community. The community must take action and help resolve the problem. The Project has set a target of at least 60% of girls at the Houay Soup site to finish primary school and ideally secondary school also.
- Providing adult education/non-formal education for youth who left school early or who are not fully literate.
- Providing adult education/non-formal education for women including literacy and skill development trainings
- Providing a reserved quota of 40% of post-secondary education scholarships of the community development program outlined below.

#### **6.2.4.5 Increase Income Opportunities for Women in the Resettlement Site**

385. The Project will establish income generating programs, including livelihood trainings, for women, both land-based and non-land-based. These will provide a number of alternative choices for women to best suit their needs. From every household, at least one woman will have the opportunity to participate in such activities.
386. Furthermore, the Project will provide training to women on livelihood activities, other management skills, such as family management skills (household bookkeeping, family planning) and community management skills. At least one woman from 98% of households in the Resettlement Site will be involved in livelihood training activities, as well as in other Project activities (e.g. health, literacy, etc.).

#### **6.2.4.6 Supporting Women's Engagement in the Project**

387. The Project will support Women who would like to work for NNP1. This should exceed employment for tasks traditionally done by women, like house cleaning and cooking, and

include all positions available, from ESD to Engineers. Skill development will be supported, next to the outlined trainings in the previous paragraphs by the scholarship program implemented by the Project.

388. At the same time it should be noted that the Project will act against any illegal activities and exploitation of women by monitoring contractors and subcontractors as well as supporting public authorities. Further details can be found in the Health Action Plan and in the Labour Management Plan.

### **6.2.5 Sub-Program 2: Capacity Building to Promote Women’s Leadership and Decision Making Power**

389. Village workshops will be held to promote the realization of leadership roles and decision making power of women within villages and beyond. Institutional arrangements will be strengthened to assure the LWU and other women’s groups have recognized roles in the village structure and administration. Women will be trained in management skills to help them in leadership and decision making. Village level workshops will help to promote a society with equality among genders, while cultural identity can still be retained

### **6.2.6 Summary of Programs**

#### **6.2.6.1 Roles and Responsibilities of Various Institutions**

390. Institutional arrangement for this program also cover programs for youth and children and the cultural awareness/heritage preservation program described below. The Social Management Office (SMO) of the Environment and Social Department of the Project will have primary responsibility for organizing and implementing these activities, along with the relevant district and provincial government agencies. Different specialists of the Social Development Section of SMO will be involved according to their respective expertise (see Figure 3).
391. The SMO will also seek cooperation from and work with NGOs that have experience in the project area. Table 28 presents the NGOs that have worked on education in the districts and provinces where the Project is located , while Table 29 lists the NGOs that have similarly worked on health issues. According to informal interviews with villagers, most people in the communities in the project area do not know of any activities carried out by these NGOs in their particular villages.

<b>NGO Name</b>	<b>Project Name</b>	<b>Activity Sectors covered in this District</b>	<b>District</b>
Action with Lao Children (ALC)	Reading Promotion Project	Education; Social Development	Hom Pakxan Thathom Bolikhhan

NGO Name	Project Name	Activity Sectors covered in this District	District
Agir pour les Femmes en Situation Precaire   Action for Women in Distressing Circumstances (AFESIP)	Repatriation, Rehabilitation and Reintegration of Women Victims of Trafficking and Sexual Exploitation	Community Development; Education; Emergency and Humanitarian Relief; Human Resources Development; Income Generation & Economic Development; Social Development	Hom Pakxan Thathom Bolikhan
Pestalozzi Children's Foundation (PCF)	Empowerment of the Ethnic Minorities through Education project.	Education	Hom
WWF (WWF)	PADETC & WWF Laos	Water and Wetlands Awareness in Schools	Hom
Save the Children Norway (SCN)	Quality Education Project (SCN)	Data Collection & Analysis; Education; Social Development	Pakxan Thathom Bolikhan
World Education/ Consortium in the Lao PDR (WEC)	Economic Self Sufficiency Project for UXO Accident Survivors	Data Collection & Analysis; Education; Emergency and Humanitarian Relief; Health Care; Human Resources Development; Social Development	Thathom
	UXO Education and Awareness Project for School Children	Data Collection & Analysis; Education; Emergency and Humanitarian Relief; Human Resources Development; Social Development	Thathom
Mennonite Central Committee (Laos) (MCC)	Integrated Agriculture Experimentation Project Pakxan Agriculture and Forestry College	Agriculture, Forestry & Fisheries; Data Collection & Analysis; Education; Human Resources Development	Bolikhan

Table 28: NGOs on Education who are Working in the Project Area

NGO Name	Project Name	Activity Sectors covered in this District	District
Association for Aid and Relief, Japan (AAR)	Project for Wheelchairs Production for People with Disabilities(PWD) in Lao PDR	Health Care	Hom Pakxan Bolikhan
Croix-Rouge Francaise (CRF)	Community Health 2008-2011	Community Development; Health Care; Human Resources Development	Hom

NGO Name	Project Name	Activity Sectors covered in this District	District
Groupe de Recherche et d'Echanges Technologiques (GRET)	Small Piped Water Systems (MIREP)	Community Development; Health Care; Human Resources Development; Income Generation & Economic Development	Pakxan
Macfarlane Burnet Institute for Medical Research and Public Health (Burnet Institute)	Lao Youth HIV/AIDS/STI Response Project	Data Collection & Analysis; Education; Health Care; Human Resources Development; Social Development	Pakxan
	Lao Youth Military and Police HIV/AIDS Reponse Project	Data Collection & Analysis; Education; Health Care; Human Resources Development; Social Development	Pakxan
CARE International in Lao PDR (CARE Laos)	Poverty Alleviation in Remote Upland Areas (PARUA)	Agriculture, Forestry & Fisheries; Community Development; Health Care; Human Resources Development; Income Generation & Economic Development; Natural Resources & Ecology; Social Development	Thathom
SNV Netherlands Development Organisation (SNV)	Capacity Development for Biogas Pilot Program	Agriculture, Forestry & Fisheries; Health Care; Human Resources Development; Income Generation & Economic Development; Natural Resources & Ecology; Social Development	Thathom
	Capacity Development for Renewable Energy	Community Development; Data Collection & Analysis; Health Care; Human Resources Development; Natural Resources & Ecology; Social Development	Thathom

Table 29: NGOs on Health who are Working in the Project Area

6.2.6.2 Overall Implementation Schedule<sup>21</sup>

Work Plan	Resp. Agency	Beneficiaries	Targets	Pre	Construction Phase (year)					Operation Phase (year)			
					1	2	3	4	5	1	2	3	...
Gender Mainstreaming													
Gathering and Applying Gender Specific Data	SMO Monitoring / Gender	Female PAPs	100% disaggregated information on schooling, health and employment	+	+	+	+	+	+	+	+	+	+
Requiring Joint Spousal Authorization and Receipt	SMO Compensation / Gender	Female Head of Household	100% of Compensation Forms signed by both husband and wife <sup>22</sup> 100% bank books in names of both spouses	+	+	+	+	+	+	+			
Joint Tenure for Property and Land	SMO Compensation / Gender / PONRE	Wives	100% land and property titles in names of both husband and wife Where more than 1 wife, title in name of wife and 1 other, selected by the wife		+	+	+	+	+				
Support Women and Girls' Schooling	SMO Education / Gender	Women (Income) Girls	At least 60% of girls conclude primary school 40% post-secondary scholarships reserved for girls			+	+	+	+	+	+	+	+

<sup>21</sup> At least 60 days prior to beginning of each calendar year, NN1PC will prepare and submit to ADB an Annual Implementation Plan with detailed activities, including budget and implementation schedule for various subprograms in this action plan.

<sup>22</sup> In case of deviation from the target reason for it will be provided by the Project.

Increase Income Opportunities for Women in the resettlement site	SMO Infrastructure / Resettlement / Gender	Women in resettlement site (Income)	At least 1 woman of 98% of affected households participates in Livelihood programs provided for households for who livelihood restoration activities apply			+	+	+	+	+	+		
Support Women's Engagement in the Project	SMO Gender Social Development	Women (Income + Livelihood)	40% female participation in overall project activities All illegal activities and exploitation of women will be investigated and penalized		+	+	+	+	+	+	+	+	
Capacity Building to Promote Women's Leadership and Decision Making Power													
Village Level Workshops on Gender Roles	SMO Gender	Men and Women	Every male and female PAP above 16 attended at least once a training			+	+	+	+	+	+		
Women Management Trainings	SMO Gender	Women (Leadership)	Every institution in the resettlement site includes women			+	+	+	+	+	+		

Table 30: Gender Action Plan / Overall Implementation Schedule

### 6.2.6.3 Costs and Budgeting

No.	Item	Costs in USD
1	Gathering and Applying Gender Specific Data	Included in ESD Operating Costs
2	Requiring Joint Spousal Authorization and Receipt	Included in ESD Operating Costs
3	Support Women and Girls' Schooling	Overall Budget reprinted in the REDP
4	Increase Income Opportunities for Women in the resettlement site	Included in ESD Livelihood Training Costs
5	Support Women's Engagement in the Project	Included in ESD Operating Costs
6	Village Level Workshops on Gender Roles	Included in Cultural Awareness Program & Information
7	Women Management Trainings	
	<b><i>Gender Action Plan Total</i></b>	Overall Budget reprinted in the REDP

Table 31: Gender Action Plan / Costs and Budgeting

## 6.3 Youth and Children Action Plan

392. This program focuses on the youth who have just finished their education and cannot attend school at the next level. At the same time, they are not yet mature enough to take the roles of adults. At present, unemployment and underemployment among youth in this age group is extensive. The program is intended to give them training in life and occupational skills that could be suitable for them. The program is also intended to include activities that focus on other areas of particular concern to youth of this age

- School programs
- Income generation activities for youth and children
- Youth mobilization
- Preventive health campaign

### **6.3.1 Objectives**

393. Some children of school age cannot attend school regularly because they have to assist their family, or the school is located too far away, or there is no teacher, or the school itself is in poor condition with no books or facilities. Children in remote areas frequently leave school early. Most of them do not continue their studies to the secondary school level, even if they complete primary school, but help with family tasks at home. Early marriage for girls is one factor against completion of secondary school, as is the bias in patriarchal ethnic groups to devalue the education of girls compared to boys.
394. The program aims to promote primary education for all children, and push the ratio of those who join secondary school to be higher. However, for those who opt to stay at home, the program will provide training in life skills and some income generating skills.
395. Those who left school early or did not complete the mandatory primary education, but who still have the potential to be literate, will be given the chance to study in adult education programs

### **6.3.2 Scope**

396. The target population will be the 5-19 year-old children and youth who reside in the Project area. They comprise about 40 per cent of the total population. After leaving school, they are among the groups with the highest rates of unemployment and underemployment. Many are also among those most likely to seek work outside of the Project Impact Zone. With few skills and little education, they then become among the most vulnerable of the migrants in cities and nearby countries.
397. There are 4 elements to the Programs for Youth and Children: Schools program, Income generation activities for youth and children, youth mobilization, and preventive health.

### **6.3.3 Sub-Program 1: Schools program**

398. This program targets having all the children receive at least mandatory primary school education and that most of the youth are literate.
399. The target is set to become one of the primary agenda for the villages. The SMO will coordinate with the local education services and relevant government agencies to coordinate with the villages to make this a priority program for their people.
400. Those who left school early will have an option to join the adult education program which focuses on literacy and basic mathematical skills.
401. During public consultation meetings in affected communities, villagers in all zones of the project area strongly requested the Project to take into consideration support for further education for their children. Most parents see education as the way out of poverty for their children and like to strongly focus on education for their children. Based on this strong focus on further education, a scholarship program is included into the SDP. A total of 30

scholarships will be allocated each year, to the best performing students, with a minimum of 12 scholarships (40%) reserved for female students. Scholarships will target two main project areas, the 3 villages in the upper reservoir area (Zone 2UR) and the Resettlement area including host communities (Zones 2LR and 5). Scholarships will target 3 level of education: Technical College, College and University, with numbers of scholarships for each zone. Of the scholarships for zones 2LR and 5, 21 scholarships will be reserved for Hmong students. The Project will apply gender quotas, i.e. at least 40% of scholarships will be reserved for girls.

402. The scholarship value will contribute to costs for food, rent, school fees and other minor expenses, covering a period of 9 months per year education system. Scholarships will be awarded for a period of 3 or 4 years, depending on the educational system, but are conditional on the progress of the student. This means that if a student drops out, the remaining scholarship funds will stop being provided to the student.
403. Upon graduation, the Company has preferential rights to employ graduates who used the scholarship program to obtain their diploma, for an employment period equivalent to the duration of the scholarship. Areas of study for which scholarships will be awarded will be influenced by the expected need for the company, in consultation with the communities.
404. A committee comprising representatives for PAPs, school headmaster, district education department and the company will be established in each of the 2 area's to allocate the scholarships to eligible students, based on school testing results, conditions on the scholarships, preferential areas of study and school entrance requirements/exams.
405. The scholarship program in Zone 2UR is scheduled to operate for 10 years, until the end of the stabilization phase of the Project and for Resettlers it is expected to operate for 15 years, until the end of the income monitoring period, with COD + 10 year as the last year of awarding the scholarships.

#### **6.3.4 Sub-Program 2: Income generation activities for youth and children**

406. The programs which will be provided for youths are:
  - Land based activities – plants or animal care techniques
  - Non-land based activities – mechanics, hairdressing, tailoring, food preservation, food processing, value added products, tourist services
  - Life skills – use of electrical appliances, bookkeeping

#### **6.3.5 Sub-Program 3: Youth mobilization**

407. The program focuses on supporting the Lao Youth Union to strengthen its activities. Additionally, there will be programs on community administration, community services, sports, and community financial management.

### 6.3.6 Sub-Program 4: Preventive health campaign

408. These programs emphasize:

- Basic hygiene of individuals, around the residence and around the community;
- Prevention of drug and alcohol abuse; and,
- Sex education, reproductive health, and family planning.

### 6.3.7 Summary of Programs

409. Programs for youths and children overlap or can be implemented in parallel with other specific development programs under the gender development plan or the health program, but with special emphasis on youth. For example, the school program will be implemented together with the program to promote girl's education; income generation or youth mobilization overlaps with aspects of the gender development plan; the health campaign will be part of the Public Health Action Plan. The institutional arrangement, schedule and budget are directly related to those plans.

#### 6.3.7.1 Roles and Responsibilities of Various Institutions

410. As outlined above, institutional arrangement for this program is closely related to programs for the Gender Action Plan and the cultural awareness/heritage preservation program described below. The SMO of the Project will have primary responsibility for organizing and implementing these activities, along with the relevant district and provincial government agencies. Different specialists of the Social Development Section of SMO will be involved according to their respective expertise (see Figure 3). Furthermore, the SMO will also seek cooperation from and work with NGOs that have experience in the project area as described in the Gender Action Plan.

#### 6.3.7.2 Overall Implementation Schedule<sup>23</sup>

Work Plan	Pre	Construction Phase (year)					Operation Phase (year)			
		1	2	3	4	5	1	2	3	...
Schools Program		+	+	+	+	+	+	+	+	
Income Generation Activities			+	+	+	+	+	+	+	
Youth mobilization			+	+	+	+	+			
Preventive Health Campaign			+	+	+	+	+			

Table 32: Youth and Children Action Plan / Overall Implementation Schedule

<sup>23</sup> At least 60 days prior to beginning of each calendar year, NN1PC will prepare and submit to ADB an Annual Implementation Plan with detailed activities, including budget and implementation schedule for various subprograms in this action plan.

### 6.3.7.3 Costs and Budgeting

No.	Item	Costs in USD
1	Schools Program including adult literacy	2,000,000
2	Income Generation Activities	Included in Livelihood Activities Costs
3	Youth mobilization	Included in the Cultural Awareness and PHAP budget
4	Preventive Health Campaign	
<b>Youth and Children Action Plan Total</b>		

Table 33: Youth and Children Action Plan / Costs and Budgeting

## 6.4 Cultural Awareness/Heritage Preservation Action Plan

411. Surveying and studying historical, art, culture or archaeological sites within and around the community in the project area are the main activities of the program. After learning from expert consultants, local people are encouraged to realize and later take the leading role in setting plans and management programs to promote, preserve and transfer their culture to the next generation.

### 6.4.1 Objectives

412. Objectives of this program are:
- To survey, study historical, archaeological, religious or any other sacred places within the Project area for use as a database for appropriate management.
  - To promote and preserve historical and archaeological sites and local culture for next generations, and to prevent their damage or despoliation

### 6.4.2 Scope

413. Target populations of the program are those in the communities of all zones in the project area. The immediate outputs of the programs will be:
- To establish database of culture, historical or archaeological sites in the project area;
  - To raise cultural awareness and heritage preservation among the local people;
  - To set up historical or cultural information points within each village.

## 6.4.3 Sub-Program 1: Programs to Promote Local History and Creation of District or Village Museums

### 6.4.3.1 Impoundment Area and Resettlement Site

414. Any archaeological or historic sites will be damaged in the impounded area. Cultural

evidence useful for the study of human development and the study of the country's history would be lost.

415. Thus far there is no evidence of important archaeological or historical sites in the impounded area. However, as villagers have found Neolithic remains in the area, further surveys and assessments will be conducted by professional archaeological consultants. If any important site is found, it will be excavated and studied as much as possible before impoundment.
416. The Project will support the development of a museum at the resettlement site, encompassing the history of people living in the area.

#### **6.4.3.2 Downstream of the Project Site**

417. Although archaeology and historical sites will not be seriously affected, they can be damaged by the many new people who will migrate in to settle in this area. Solutions are:
- Doing systematic excavation in old community area at Ban Thahuea under archaeological supervision, to determine which archaeological or historical sites are worthy of further study.
  - Building excavation in 3 sites at Ban Thahuea and also strengthen them for a research including set the area of these 3 ancient ruins for their preservation.
  - Assigning some parts in old community area as preservation zones for future research when Lao PDR has greater capacity to conduct such work.
  - The excavation, data and result of the research will be published.
  - Information and the ancient ruins will be shown, while any moveable artefacts will be kept in the national museum after the initial research.

### **6.4.4 Sub-Program 2: Other Activities to Support Local Culture and Heritage and Protocols for Contractors in Case of Chance Discovery of Cultural Artefacts during Construction or Operation**

#### **6.4.4.1 Local Culture**

418. Local culture will be part of the overall consultations with residents of communities where construction or resettlement is involved. It will be emphasized that their social and cultural structures will remain intact and that assets such as schools, temples, markets and other public facilities will be replaced.
419. The community relations team of the NNP1 SMO will conduct in-depth research to learn more about the views of community leaders such as village headmen, elders, shop owners, teachers and housewives on their requirements in areas such as education, occupational development and job creation to reflect the changing social and cultural circumstances.
420. A feasibility study will be conducted to determine how the museum in the resettlement area can become a venue where the unique traditions of local residents can be preserved. This may be an open space where household items from the past are put on display. It can also be

used for the purposes of occupational development and community activities. For instance, arrangements can be made for experts from the village or other villages to visit the centre and share with other local people how they can improve their agriculture or other initiatives.

421. A survey of cultural activities in areas with cultural diversity to establish collaboration, promote cultural heritage and avoid cultural conflict, with assessment planned for every year.
422. The authorities shall dispatch officials to be stationed at the centre in order to foster a collaborative relationship with teachers and community leaders, taking into account continuity of development plans and their relevance to the villagers. This can lead to the implementation of various activities and the use of resulting products to increase their revenue.
423. Foremen employed should be able to speak local dialects in order to facilitate communication with the villagers.
424. A program for the improvement of villagers' quality of life revolving around the provision of basic education to ensure literacy and possibility of communication with others and state officials in the community, with assessment planned for every two years.

#### **6.4.4.2 Historical sites**

425. Staff of the SMO will be trained to identify potential sites or items of cultural significance. Construction workers will be informed about the appropriate reporting and communication procedures to be followed if they identify any potential sites or items and the importance of implementing these procedures.
426. Construction activities will be undertaken in a manner to avoid any Physical effect on known sites of cultural and religious significances.
427. No work will be carried out within a 50 m radius of a potential site until directed by the SMO.
428. Temporary fencing or similar demarcation will be used to mark a 50m radius from the site.
429. Any directions or requirements from the SMO in relation to measures to protect the site will be recorded and communicated by the SMO to the construction workforce. All such requirements will be strictly adhered to.

#### **6.4.5 Summary of Programs**

430. The cultural Awareness program points towards a strengthening of culture and cultural knowledge to maintain local cultures and traditions during transitions partly instigated by the Project, partly a result of general integration tendencies of rural and urban areas on a national and global level. It will thereby support the preservation of material aspects of cultures and traditions, including the development of a museum for artefacts and the prevention of physical damage on local heritage as well as support strengthening of cultural awareness amongst people. This links to the awareness programs for children and youth

outlined above.

#### 6.4.5.1 Roles and Responsibilities of Various Institutions

431. As with all other aspects, the program will be implemented in close cooperation between PAPs, GoL, the Company and its contractors and subcontractors. Inside the company, ESD will take the lead in developing the program and monitoring its outcome, supported by the other departments. The Ministry of Information and Culture and its local institutions as well as Lao mass organization will be important agencies in implement the program together with formal and informal institutions on village level, for example elders.

#### 6.4.5.2 Overall Implementation Schedule<sup>24</sup>

Work Plan	Frequency	Pre	Construction Phase (year)					Operation Phase (year)				
			1	2	3	4	5	1	2	3	...	
Archaeological surveys	Once		+	+								
Excavations in Thahuea at 3 sites	Once		+	+								
Construction of Museum at the resettlement site	Once				+	+						
Museum related Activities incl. cultural studies and surveys	2 events / year		+	+	+	+	+	+	+			
Literacy Program			+	+	+	+	+					
<i>Village Training</i>												
- Zone 1	1 event / year		+	+	+	+	+	+	+			
- Zone 2 UR	1 event / year		+	+	+	+	+	+	+			
- Zone 2 LR	1 event / year		+	+	+	+	+	+	+			
- Zone 3	1 event / year		+	+	+	+	+	+	+			
- Zone 4	1 event / year		+	+	+	+	+	+	+			

<sup>24</sup> At least 60 days prior to beginning of each calendar year, NN1PC will prepare and submit to ADB an Annual Implementation Plan with detailed activities, including budget and implementation schedule for various subprograms in this action plan.

- Zone 5	1 event / year		+	+	+	+	+	+	+		
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Table 34: Cultural Awareness/Heritage Preservation Action Plan / Overall Implementation Schedule

### 6.4.5.3 Costs and Budgeting

No.	Item	Costs in USD
1	Archaeological surveys	294,000 (not included literacy - see above; ESD staffing costs in the REDP)
2	Excavations in Thahuea at 3 sites	
3	Construction of Museum at the resettlement site	
4	Museum related Activities incl. cultural studies and surveys	
5	Literacy Program	
6	Village Training	
	<b><i>Cultural Awareness/Heritage Preservation Action Plan</i></b>	

Table 35: Cultural Awareness/Heritage Preservation Action Plan / Costs and Budgeting

## CHAPTER 7 - Evaluation and Monitoring of the SDP

432. The SDP of the Project covers communities over a large area in 2 provinces: Xaysomboun and Bolikhamxay. It consists of many sub-plans and programs. In order to implement all of those successfully, the evaluation and monitoring system of the plan must also be put in place.
433. There are two targets for evaluation and monitoring of the SDP:
- i. To follow closely the progress of each plan, both in terms of the accomplishment of each activity, and in terms of the social indicators in practice; and
  - ii. To identify the problem or obstacles during implementation. If necessary the adjustment of the plan or program will be done to ensure overall success.

### 7.1 Framework/Policies

434. Monitoring requirements are covered in several Frameworks and Policies such as:
- Prime Minister's Decree No. 192/PM on the Compensation and Resettlement of Development Projects, dated 7 July 2005
  - Technical Guidelines on Compensation and Resettlement of People Affected by Development Projects, Regulation 699/PMO, MONRE March 2010
  - Asian Development Bank Safeguard Policy Statement, 2009
  - NNP1PC Concession Agreement Annex C, Clause 33 Self-Monitoring and Reporting by the Company

#### 7.1.1 Prime Minister's Decree No. 192

435. The Prime Ministers Degree 192 in Article 16 has the following stipulations regarding monitoring of the Project:
- i. Project owners shall make adequate arrangements for monitoring of the implementation of the compensation, resettlement and rehabilitation measures.
  - ii. In projects with major resettlement component where the impacts are severe, the project owners shall contract an experienced and independent monitoring agency for monitoring and evaluation of the implementation of the compensation, resettlement and rehabilitation measures.
  - iii. The project owners shall make provisions for post-evaluation six months to one year after completion of the implementation of resettlement and rehabilitation measures, to check whether the economic rehabilitation and the livelihood objectives of the resettlement plan have been achieved.

- iv. If the evaluation indicates that the PAPs have not been able to achieve the stated objectives and income targets, project owners shall make arrangements

### **7.1.2 Technical Guidelines on Compensation and Resettlement of People Affected by Development Projects, Regulation 699/PMO, MONRE March 2010**

436. The objective of monitoring is to provide feedback on implementation, and to identify problems and successes as early as possible to facilitate timely adjustment of implementation arrangements. Monitoring of RP implementation is of critical importance in all projects involving involuntary resettlement for several reasons: (1) resettlement is on the critical path on any project and can cause severe delays; (2) it affects people's lives directly, and can cause severe hardship; (3) it is the main mechanism to alert management to delays and problems in implementation.

### **7.1.3 ADB Safeguard Policy Statement 2009**

437. The ADB's Safeguard Policy Statement (2009) outlines in Articles 57 and 58 the necessary Monitoring and Reporting procedures for development. ADB's SPS 2009 outlines in Articles 57 and 58 that the responsibility is shared between NNP1PC, ADB, and GoL and has several levels. The project owner is required to:

- establish and maintain procedures to monitor the progress of implementation of safeguard plans,
- verify the compliance with safeguard measures and their progress toward intended outcomes,
- document and disclose monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports,
- follow up on these actions to ensure progress toward the desired outcomes,
- retain qualified and experienced external experts or qualified NGOs to verify monitoring information for projects with significant impacts and risks,
- use independent advisory panels to monitor project implementation for highly complex and sensitive projects, and
- submit periodic monitoring reports on safeguard measures as agreed with ADB

### **7.1.4 NNP1PC Concession Agreement, Annex C, Clause 33: Self-Monitoring and Reporting by the Company**

438. The Concession agreement of the NNP1PC requires the company to engage in continuous, pro-active and comprehensive self-monitoring of the Company's activities, the Project and activities related thereto, all Adverse Impacts, and compliance with Standards, and compliance with the Concession Agreement and the provisions of Annex C. In addition to the requirement to monitor, the Company must notify and identify in writing to the relevant

representative of MONRE (with a copy to Department of Energy Promotion and Development, Ministry of Energy and Mines) any breaches of Company obligations or other performance failures or violations under Annex C.

## ***7.2 Monitoring and Evaluation***

439. Monitoring and evaluation can be broadly categorized as 2 types of processes: an internal monitoring system, and an external monitoring system. For details in regards to monitoring and evaluation of the REDP see the respective report.
440. Several programs of the SDP are programs started up with support from the company but then be operated by 3<sup>rd</sup> parties afterwards on a sustainable bases after a training period and hand over for a time period long after the completion of the activities covered by this SDP. This includes for example but not being limited to a community water supply program, which will be constructed with support by the Company; but following appropriate training and hand over of the facilities, as specified by the Department of Hygiene, Ministry of Health, these facilities will be operated by the community itself. The continued Operation and Maintenance will be monitored by the Village Water Committee. This chapter covers the monitoring programs implemented by the Company and does not include these continued self-monitoring by communities or other 3<sup>rd</sup> parties of programs started with support of the company and sustainably operated afterwards by 3<sup>rd</sup> parties.

### **7.2.1 Internal monitoring system**

441. The monitoring will be conducted by the monitoring section within the structure of the Social Management Office of the Project's ESD, outlined in Chapter 3, section 3. Internal monitoring will focus on the activities implemented for the PAPs in the Project Impact Zone: those who will be resettled, and those who suffer moderate impacts yet do not need to resettle, as well as those with only minor impacts.
442. The reports on implementation are about activities being executed, the outcome of those activities, records of the people who attend the events and their opinions, including discussions and suggestions. The frequency of submitting reports may be daily, weekly, quarterly or yearly depending on the urgency of those activities and the need for close monitoring.
443. The daily or weekly reports are mostly those that focus on physical activities, particularly in construction and related activities. Reports that are the least frequent are those that concern measures of income, living standards, and other matters that do not change so rapidly. Quarterly monitoring reports will be prepared and submitted to ADB.
444. The schedule of the reporting of each programs in the plans are presented in Section 7.3 below.

## 7.2.2 External monitoring system

445. The external monitoring will be conducted by experts who are highly experienced and are not involved directly in any work of the Project. These experts will constitute the IAP, IMA, and LTA as outlined above.

## 7.2.3 Process of External Monitoring

446. External monitoring teams will not carry out their own basic data collection surveys and will focus their surveys on (i) improvement of the project monitoring activities, (ii) improvement of environmental and social measures to be implemented by the monitoring group including special measures to address impacts on ethnic groups, (iii) improvement of treatment in the grievance redress procedures through the project progress, and (iv) compliance with agreed entitlements and other obligations. Therefore, the external monitoring teams will receive NNP1 quarterly progress reports.
447. Nonetheless, field visits will take place and will be integrated in monitoring reports. The external monitoring teams will visit the different project sites during the construction and operation phases of the Project on annual basis. The Project monitoring and compliance staff will provide further information of specific local environmental and social activities. The field visits should not interfere with on-going construction activities or on-going resettlement activities, and the monitoring and compliance staff will help to coordinate interviews with contractors' representatives, village authorities, and project affected households, as required. During field visits, the external monitoring teams will focus on group discussions with especially women and affected ethnic groups and vulnerable people which will be led by locally trained facilitators, if required, in ethnic group language (e.g. in Hmong language).
448. After field visits, joint meetings will be held with representatives of the Project including monitoring and compliance staff, GoL agencies and Lenders, during which the external monitors will make presentations on their findings, including recommendation of meaningful improvement in the implementation process of environmental and social measures to be followed up by discussion between the parties involved in monitoring and implementation of activities. Minutes of the meetings will be made by the monitoring and compliance staffs and included in the relevant quarterly reports to the parties.

### 7.2.3.1 Outcome

449. Consequently, through the safeguard review, internal and external monitoring results, including reviews of NNP1 safeguard documents, ADB will confirm according to Article SPS 59: “
- that all key potential social and environmental impacts and risks of a project are identified;
  - that effective measures to avoid, minimize, mitigate, or compensate for the adverse impacts are incorporated into the safeguard plans and project design;

- that the borrower/client understands ADB's safeguard policy principles and requirements as laid out in Safeguard Requirements 1-4 and has the necessary commitment and capacity to manage social and environmental impacts and/or risks adequately;
- that the role of third parties is appropriately defined in the safeguard plans; and
- that consultations with affected people are conducted in accordance with ADB's requirements."

### **7.3 Social Indicators**

450. The social indicators which are used to evaluate the success of the social development plans are household income, school attendances, literacy rate, female participation, health facilities, nutritional status, child mortality rate, maternal care and the like. To the extent possible, the social indicators for the Project correspond with the indicators for the Millennium Development Goals. Details for every program can be found in Table 36.

451. Gender-specific targets to ensure gender equity and improvement of women and girls' status, particularly among resettled households, have also been included (see Section 6.2.6.2). These include:

- 100% disaggregated information on schooling, health and employment
- 100% of compensation forms signed by both husband and wife<sup>25</sup>
- 100% of bank books in names of both spouses
- 100% land and property titles in the names of both husband and wife
- Where there is more than one wife (in Hmong communities), titles will be in the name of the wife and one other family member, to be nominated by the wife
- At least 60% of girls to conclude primary school
- 40% post-secondary scholarships reserved for girls
- At least 1 woman of 98% of affected households participates in livelihood programs provided for households for who livelihood restoration activities apply
- 40% female participation in overall project activities
- 98% of male and female affected person above the age of 16 at the cut-off date to attend at least one training offered

### **7.4 Reporting of the Plans or Programs**

452. Schedule of reporting of each sub-plan or sub-program is described in Table 36. The

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<sup>25</sup> In case of deviation from the target reason for it will be provided by the Project

schedule lists the frequency of data collecting, frequency of reporting, responsible persons who carry out the reporting, the channel of submission of the report and where each activity will be conducted among the communities in different zones of the Project. This table has to be adapted according to the development of programs as well as adaptations of internal ESD structures in cooperation with GoL authorities and PAPs.

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
<b>1 Employees/Workers' Health</b>																					
<b>1.1 Construction workers and followers health program</b>																					
Prevention of the increased risks of accidents and injuries, occupational health hazard and transmittable diseases	Monthly	Monthly	+	+	+	+	+	+						Contractor	ESD				+		
Provide good medical care	Once	Right away	+											Contractor	ESD				+		
Support health facilities	Once	Right away	+											Contractor	ESD				+		
Given health information and education to increase the awareness and prevention	Twice a year	Twice a year		+	+	+	+	+						Contractor	ESD				+		
Provide long lasting impregnated bed-nets	once	right away												Contractor	ESD				+		
Spraying residual insecticide	Twice a year	Twice a year	+	+	+	+	+	+						Contractor	ESD				+		
<b>1.2 Camp sanitary sewage program</b>																					
Install water efficient plumbing and toilet facilities.	Once	Right away	+											Contractor	ESD				+		
Install septic tank systems	Once	Right	+											Contractor	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
		away												ctor							
Establish a sewage treatment unit	Once	Right away	+											Contractor	ESD				+		
Regularly Monitor the quality of effluent from wastewater treatment plant	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
Transported off-site to a suitable treatment facility of effluent from any septic tank system	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
Reuse of grey water for dust suppression or watering of landscaping works.	Daily	Monthly		+	+	+	+	+						Contractor	ESD				+		
1.3 Solid waste management program																					
1) Provide the facilities at each construction site	Once	Right away	+											Contractor	ESD				+		
2) Prepare a waste disposal area plan(s)	Once	Right away	+											Contractor	ESD				+		
3) Maximise the reuse and recycling of waste products will be identified and maximised as part of all construction activities.	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	2 U R	2 L R	Z 3	Z 4	Z 5
4) Undertaken all construction activities in a manner that minimises the generation of waste as far as practical.	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
5) Burn waste materials under the appropriate conditions:	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
6) Remove Group A2 and Group A3 waste from construction sites and transfer to the nearest waste disposal area.	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
7) Covered the full waste disposal area by a minimum depth of 1.5 m of soil, and then re-vegetated.	On each event	Right away						+						Contractor	ESD				+		
8) Train the worker in the requirements for waste separation.	Once	Right away	+											Contractor	ESD				+		
1.4 Hazardous waste management program																					
1) Prepare a hazardous waste storage area plan.	Once	Right away	+											Contractor	ESD				+		
2) Install all of requirements in the Hazardous Waste Storage Area.	Once	Right away	+											Contractor	ESD				+		
3) Registered all chemicals and waste. Register movements.	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
4) Establish safety procedures applicable and set to training program.	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
5) Develop emergency response procedure and display at each construction site.	Once	Right away	+											Contractor	ESD				+		
Train all workers responsible for handling hazardous waste	Yearly	Yearly	+	+	+	+	+	+						Contractor	ESD				+		
1.5 Care and surveillance of communicable diseases																					
Install mosquito screen in all buildings in the camp	Once	Right away	+											Contractor	ESD				+		
Set up a training program on communicable disease for workers	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
Control of mosquito and pests	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
Safe application of pesticides when necessary	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
Maintain and monitor solid waste, water supply and sewage system.	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
At least 80% of staff has received introduction course, Posters printed	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
and posted, Leaflet printed and distributed																					
Check monthly number of medical checks	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
Check quarterly number of pre-employment medical checks and number of routine annual medical checks	Quarterly	Quarterly		+	+	+	+	+						Contractor	ESD				+		
Record for disease incidence	Monthly	Monthly		+	+	+	+	+						Contractor	ESD				+		
1.6 Emergency treatment and first aid for major accidents/injuries																					
Provide medical facilities and staff	Once	Right away	+											Contractor	ESD				+		
Provide first aid facilities and team specifically trained	Once	Right away	+											Contractor	ESD				+		
Registration of personnel attending first aid training and subsequent job affectation	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
Ensure responsible staff for explosive, chemical and hazardous waste management has attended training	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	2 U R	2 L R	Z 3	Z 4	Z 5
Monitor First Aid equipment available and fully supplied.	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
1.7 Protective equipment for workers/employees																					
Provide sufficient and proper PPE	Once	Right away	+											Contractor	ESD				+		
Training new workers/employees the proper use of PPE	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
Frequent Inspection	Often	Yearly		+	+	+	+	+						Contractor	ESD				+		
1.8 Annual physical examination for workers																					
Medical check-up	Yearly	Yearly	+	+	+	+	+	+						Contractor	ESD				+		
1.9 HIV/AIDS Awareness Program																					
Set a training program	Yearly	Yearly		+	+	+	+	+						Contractor	ESD				+		
2 Community Health Program																					
2.1 Health education awareness -\Resettlement health program																					
Construct new health care facilities	Once	Right away	+		+									SMO	DMD ESD		+				+

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
2.2 Health program for the local people that related to the Project																					
Improve the health situation and awareness	Monthly	Monthly		+	+	+	+	+	+	+	+			SMO	DMD ESD	+	+	+	+	+	+
Prevent and avoid negative health effect	Quarterly	Quarterly		+	+	+	+	+	+	+	+			SMO	DMD ESD	+	+	+	+	+	+
Improve health capacity	Twice a year	Twice a year		+	+	+	+	+	+	+	+			SMO	DMD ESD	+	+	+	+	+	+
2.3 Water supply and sanitation program																					
Provide Potable water supply infrastructure	Once	Right away	+						+					SMO	DMD ESD		+			+	+
Supply sanitary facilities comprising a septic tank system	Once	Right away		+					+					SMO	DMD ESD		+				+
Secure all potable water storage facilities with access limited to authorised personnel.	Yearly	Yearly		+	+	+	+	+	+	+	+			SMO	DMD ESD		+			+	+
Maintain water supply and sewage system	Yearly	Yearly		+	+	+	+	+	+	+	+			SMO	DMD ESD		+			+	+
2.4 Minimize dust, noise and air pollutants																					
Use water to suppress dust dispersion over exposed surfaces	Daily	Monthly		+	+	+	+	+						EMO	DMD ESD					+	+

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
and crusher operation.																					
Suppress dust in the worker camp	Daily	Monthly												EMO	DMD ESD				+		
Control pollution from the construction equipment	Daily	Monthly	+	+	+	+	+	+						EMO	DMD ESD				+		
Provide a mechanical filter type respiratory and air-supplied helmet for fumes and metallic.	Once	Right away	+											EMO	DMD ESD				+		
Provide appropriate personal respiratory protection equipment	Once	Right away	+											EMO	DMD ESD				+		
Switch off engines	Every time	Monthly	+	+	+	+	+	+						EMO	DMD ESD				+		
Wash or clean all vehicles before leaving the site	Daily	Monthly	+	+	+	+	+	+						EMO	DMD ESD				+		
cover all loads entering and leaving the site	Every time	Monthly	+	+	+	+	+	+						EMO	DMD ESD				+		
Systematically diagnose worker's health condition related to respiratory diseases	Once	Right away	+						+					EMO	DMD ESD				+		
Monitor air quality Noise and Vibration	Yearly	Yearly		+	+	+	+	+	+	+	+			EMO	DMD ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
2.5 Minimizing traffic related accidents																					
Post road signal at sensitive area	Once	Right away	+						+					Contractor	ESD				+	+	+
Set a maintenance program for the construction vehicle fleet	Monthly	Monthly	+	+	+	+	+	+											+		
Inspected each construction vehicle	Twice a year	Twice a year	+	+	+	+	+	+											+		
Visual inspection of traffic movements	Daily	Monthly	+	+	+	+	+	+											+	+	+
Confine movement of construction vehicles and traffic on-site	Every time	Monthly	+	+	+	+	+	+											+		
Provide off-road parking areas	Once	Right away	+																+		
Notify of prior to the movement of special loads on public roads	Once	Right away	+																+	+	+
Mark construction activities on public and internal roads	Once	Right away	+																+	+	+
3 Labour Management Plan																					
3.1 Direct Workforce Local Labour Recruitment Policy																					

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
3.2 Community Management and Infrastructure Development																					
Community Management & community relations	Monthly	Monthly		+	+	+	+	+						SMO	DMD ESD				+	+	+
3.2.2 Infrastructure Development																					
Residential accommodation for workers comprising one bed and 0.5m <sup>3</sup> of personal storage space per person	Once	Right away	+											Contractor	ESD				+		
Canteen and kitchen	Once	Right away	+											Contractor	ESD				+		
Shops to supply basic food, toiletries and personal items	Once	Right away	+											Contractor	ESD				+		
Recreational areas	Once	Right away	+											Contractor	ESD				+		
Medical facilities	Once	Right away	+											Contractor	ESD				+		
Potable water supply infrastructure including pumping facilities and water storage areas	Once	Right away	+											Contractor	ESD				+		
Sanitary facilities comprising a septic tank system with adequate	Once	Right away	+											Contractor	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
capacity to treat wastewater from the ultimate camp population																					
Waste collection and management facilities	Once	Right away	+											Contractor	ESD				+		
Suitable lighting for security and amenity	Once	Right away	+											Contractor	ESD				+		
Internal roads of at least 4m width with gravel surface	Once	Right away	+											Contractor	ESD				+		
Emergency protection equipment including fire protection	Once	Right away	+											Contractor	ESD				+		
Temporary erosion and sediment controls during construction and storm water drainage to minimise mosquito breeding	Once	Right away	+											Contractor	ESD				+		
3.3 Drug, Alcohol AND Gambling Awareness Campaign																					
Meeting on the awareness of drug, alcohol, gambling etc.	Quarterly	Quarterly	+	+	+	+	+	+						SMO	ESD Manager				+		
Awareness campaign via posters or hand-outs	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
Promote sports or other hobbies during leisure time	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
Impose rules or agreement on drug, alcohol or gambling via management practice in the workplace	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
<b>3.4 Sexually Transmitted Infection Prevention and Management</b>																					
Create a supportive environment for behaviour change among SWs and their clients.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
Increase awareness among decision-makers of the risks confronting SWs and clients and the factors impeding efforts to reduce these risks.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
Ensure that SWs and their clients have correct knowledge on HIV and STIs and have the motivation, power and means to act on their knowledge.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
Promote "100% condom use",	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
including social marketing programmes through non-traditional outlets.															Manag er						
Improve knowledge about behaviour, practice and networks of SWs and their clients in order to monitor effectiveness of existing interventions and to guide development/modification of potential interventions.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manag er				+		
Increase understanding of contextual factors and risk behaviour which contributes to the vulnerability of mobile populations and their families in relation to STIs and HIV/AIDS.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manag er				+		
Reduce the vulnerability of mobile populations and their families to STIs and HIV/AIDS.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manag er				+		
Expand social marketing of condoms.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manag er				+		
Empowering young people with	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
the knowledge and skills to avoid HIV/AIDS/STI and drug abuse.															Manag er						
Enhance young people's knowledge about HIV/AIDS and methods of prevention.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manag er				+		
3.4 Human Trafficking Impacts and Management																					
Seminar or Workshop on awareness of the human trafficking	Quarterly	Quarterly	+	+	+	+	+	+						SMO	ESD Manag er				+		
Micro meeting at village level among women or youth on human trafficking	Quarterly	Quarterly	+	+	+	+	+	+						Village develo pment cluster	SMO				+		
3.5 Conflict Resolution																					
Workers shall observe rules of work. Rules as specified under laws and regulations, the internal work rules of the Labour unit and the employment contract signed between workers and their employer.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manag er				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
To be legally enforceable, the internal work rules of any Labour unit shall be established in conformity with the Labour law and regulations of the Lao People's Democratic Republic and approved beforehand by the Labour administration.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
The internal work rules of a Labour unit shall be made known to all workers and posted openly so that everybody may be informed.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		
Workers who breach work rules and to whom warning has been served without any positive change, may be transferred temporarily to work at another workplace or forced to resign. Where workers intentionally cause damage to the property of a Labour unit, they shall be required to provide compensation for such damage.	Monthly	Monthly	+	+	+	+	+	+						SMO	ESD Manager				+		

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
4 Community Development Plan																					
4.1 Gender Action Plan																					
Gender Balance Targets																					
Promote equal opportunity school education for girls	Twice a year	Twice a year		+	+	+	+	+	+	+	+			SMO	ESD Manager						+
Education support for girls in vulnerable households	Twice a year	Twice a year		+	+	+	+	+	+	+	+			ESD	Developer						+
Guide and planning support for parents on education of their children	Twice a year	Twice a year		+	+	+	+	+	+	+	+			SMO	ESD Manager						+
Vocational skill training for women	Twice a year	Twice a year		+	+	+	+	+	+	+	+			SMO	ESD Manager	+	+	+	+	+	+
Infrastructure development to ease tedious tasks of women	Once	Right away			+									SMO	ESD Manager		+				+
Gathering and Applying Gender Specific Data																					
Employing local women as part of the work force on women issue.	Yearly	Yearly		+	+	+	+	+	+	+	+			Village development	SMO						+

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
														cluster							
Requiring Joint Spousal Authorization and Receipt																					
Awareness on joint spousal authorization and receipt	Yearly	Yearly		+	+	+	+	+						Village development cluster	SMO	+	+	+	+	+	+
Supporting Women's and Girls' Schooling;																					
Higher education support for girls or women	Yearly	Yearly		+	+	+	+	+	+	+	+			ESD	Developer						+
Increasing Women's Activities in New Areas																					
Promote skills and entrepreneurship for women	Yearly	Yearly		+	+	+	+	+	+	+	+			SMO	ESD Manager	+	+	+	+	+	+
Women's participation in village level activities																					
Promote women participation in activities of their villages	Yearly	Yearly		+	+	+	+	+	+	+	+			SMO	ESD Manager	+	+	+	+	+	+
Support Women's Engagement in the Project																					
Promote women employment in the project on several levels of qualification	Yearly	Yearly		+	+	+	+	+						SMO	ESD Manager		+	+	+		+

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
															er						
Capacity Building to Promote Women's Leadership and Decision Making Power																					
Promote women participation at decision making level (target: every institution on community level involves women)	Quarterly	Quarterly		+	+	+	+	+	+	+	+			SMO	ESD Manager	+	+	+	+	+	+
4.2 Program for Youth and Children																					
Schools program	Twice a Year	Twice a Year		+	+	+	+	+	+	+	+	+	+	SMO	DMD ESD		+	+	+		+
Target 100% of the children to at least finish primary school and promote higher education to at least secondary school	Twice a Year	Twice a Year		+	+	+	+	+	+	+	+			SMO	DMD ESD						+
Income generation activities for youth and children	Yearly	Yearly												SMO	DMD ESD	+	+	+	+	+	+
Youth mobilization	Yearly	Yearly												SMO	DMD ESD						+
Preventive health campaign	Yearly	Yearly												SMO	DMD ESD	+	+	+	+	+	+
4.3 Cultural Awareness/Heritage Preservation Program																					

Program/Strategies Frequency of reporting	Frequency of data collecting	Frequency of reporting	P	C 1	C 2	C 3	C 4	C 5	O 1	O 2	O 3	O 4 - 8	O 8- 25	Report by	Report to	Z 1	Z 2 U R	Z 2 L R	Z 3	Z 4	Z 5
Survey, study historical and archaeology within the Project area and excavations in Thahuea	Once	Right away	+											SMO	DMD ESD		+	+	+		+
Support literacy program for adults who left school early or in need to update their education.	Once	Right away		+		+								SMO	DMD ESD	+	+	+	+	+	+
Establish Museum in the Resettlement Site and related Activities	Yearly	Yearly			+	+	+	+	+	+	+	+	+	SMO	DMD ESD			+	+		+
Promote, preserve and protect the historical, archaeological site and local culture	Yearly	Yearly		+	+	+	+	+	+	+	+			SMO	DMD ESD	+	+	+	+	+	+

Table 36: The Schedule of Reporting of the SDP's Program

**Remark:** This table has to be updated depending on adaptations of SDP programs.

This version of the SDP has been published in June 2014.

This SDP will be revised whenever major mile stones have been reached and/or new information is available to integrate.