Updated Social Development Plan

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October 2016

Nam Ngiep 1 Hydropower Project (Lao People's Democratic Republic)

Main Report

Prepared by Nam Ngiep 1 Power Company Limited for the Asian Development Bank

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Executive Summary

a. 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 Paksan, the capital of Bolikhamxay Province, which is located 145 km north-east of the national capital, Vientiane.
- 2. Construction Schedule. Main construction activities of NNP1 started in August 2014. The NNP1 reservoir is planned to be filled during the rainy season of 2018. Electricity will be generated from a proposed Commercial Operation Date (COD) in January 2019 onwards during a concession period of 27 years. Currently the various project components are on schedule to meet the COD target date. Some delays have occurred in the past, but plans to make up for lost time are in place.
- 3. **The Company**. In 2013, the Nam Ngiep 1 Power Company Limited was founded. Shareholders are KANSAI (45%), EGAT international (30%), and Lao Holding State Enterprise (25%). On 27 August 2013 a Power Purchase Agreement with EGAT was signed by the Nam Ngiep 1 Power Company Limited and at the same day the Concession Agreement was signed with GOL in the Ministry of Planning and Investment.
- 4. **Legal Framework**. The Lao legislation, policies, and regulations regarding social requirements for hydropower development have been put in place over 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.
- 5. The Social Development Plan (SDP). This version (Updated October 2016) of the SDP covers those social, economic, labour and cultural mitigation issues that are not covered in the Resettlement and Ethnic Development Plans (REDPs). The SDP elaborates on the issues of public health, labour and social management linked to construction and community development. This update has taken into consideration the findings of the latest socioeconomic survey of the project affected communities, the needs and priorities of these communities which was obtained through consultations held since 2014 up to present day, the lessons learned from the initial activities implemented since NNP1 started partly implementing some components of the SDP.
- 6. The principle of the SDP is to avoid negative project impacts and if unavoidable, minimize and mitigate these while enhancing positive project impacts. This is to ensure the affected people will not be worse-off due to the project and to improve their standard of living (nonmonetary). The SDP is complementary to measures outlined in the REDPs and covers a population larger than those immediately affected by land acquisition and resettlement.

- 7. **The Community Development Plan (CDP)** which is part of the SDP consists of issues relating to gender, youth and children, and cultural awareness that are not covered in the relevant REDPs.
- 8. **Public Consultations**. Since the SDP was issued in 2014, consultations have continued to be a core methodology to enhance development ownership of all involved stakeholders in the programmes and to adjust activities as programmes have been implemented. Outcomes of these consultation meetings on a wide range of activities have been incorporated in this updated SDP. Consultations with communities will continue, and will be sensitive to gender dimensions and will be used to improve the implementation of programmes in accordance with the actual situation of the DPs in each of the project Zones. Details of past consultations can be found in the Social Impact Assessment, REDP and for Zone specific information, REDP updates all of these are available on the Company's website.

b. Description of the Project

- 9. **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.
- 10. **Dam and Reservoir**. NNP1 will build a 167 m high dam located in the Nam Ngiep River close to Hat Gniun village. The NNP1 catchment is 3,700 km² at the dam site. NNP1 reservoir will be narrow, long and deep. The reservoir effective storage capacity is 1,192 million m³ at Full Supply Level (FSL, 320 MSL). At this level the total surface area of the reservoir will be 66.9 km². The Minimum Operation Level will be at 296 MSL.
- 11. **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 km² and an effective storage capacity of 4.6 million m³ 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.
- 12. **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 reregulation 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.
- 13. **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.

- 14. **Construction**. NNP1PC has workers engaged in construction work over a 5 year period which began in 2014. They are 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.
- 15. **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.

c. Institutional Arrangements and Implementation

- 16. **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.
- 17. NNP1PC. NNP1PC has established a Social Management Office (SMO) inside the Environmental and Social Division (ESD) 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 REDPs and the Action Plans describe therein, and 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, 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 Paksan, and in Vientiane. This team will include more than 50 people, including national and foreign experts, supported by national and international consultants for specific topics such as nutrition, fisheries, etc.
- 18. **External Monitoring**. The Project's activities will be 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. Project activities will also be monitored 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.
- 19. **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.

d. Public Health Action Plan

- 20. **Health Status**. Baseline data collected in 2015 from the district hospitals found that the most common reasons for hospital admission were linked to gastro-intestinal diseases, respiratory disease, under-nutrition and accidents. Outpatient cases showed a similar pattern with gastro intestinal disease, respiratory and neurological disease ranking highly along with trauma and dental problems.
- 21. **Objectives.** The objectives of the PHAP are twofold: (i) to prevent project-generated adverse health effects on the communities at the village and district levels and minimize and mitigate these if these are not preventable; and (ii) to improve the health situation of local people with special attention in residents in the resettlement villages. The strategies to achieve these objectives are the following: (i) strengthening the skills of health care providers and village health; (ii) 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
- 22. **Sub-Programs**. The PHAP will implement four sub-programs:
 - Community health in resettlement areas;
 - Community health Project Impact Zone;
 - Capacity building for GOL staff in project area;
 - Integrated WASH and Nutrition program;

e. Labour Management Plan

23. **Labour Status**. The amount of labour required is estimated to be about 1,000 workers/day in the first 2 years; rising to 2,200 workers/day in the third and fourth years; and then reducing again to 1,000 workers/day for the remaining construction period. An administration office of the main contractor and a Company office are located in the construction area as well as a sub-contractor labour camp. Management staff of both the

main contractor and the owner are 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, have been brought in and temporary facilities such as the crushing plant, batching plant and base camp have been 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. 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 which was updated in May 2016.

- 24. **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. The total working age population, which is all the people in the aged from 16 to 60 years in the immediate project area came to 1,162 males and 1,102 females. Those in the prime working age for the Project those able to perform hard labour and/or those able to learn the skills for semi-skilled jobs aged 16 to 40 totalled 887 males and 847 females.
- 25. **Objectives**. The objectives of the labour management plan are thereby to:
 - Establish standards on worker welfare and living conditions at the camps that provide a healthy, safe and convenient environment.
 - Avoid or reduce negative impacts on the community and maintain constructive relationships between contractors, workers' camps, camp followers and local communities.
- 26. Sub-Programmes. The SDP addresses thereby the following topics: NNP1PC company policy on Recruitment, 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, 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.

f. Social Management Action Plan

27. **Objectives.** The Social Management Action Plan was devised to reduce harm associated with construction and associated camp follower activities during the construction period.

These risks includes increased exposure to STDs, anti-social behaviour and human trafficking. The plan includes support for local authorities, raising awareness of risks among NNP1 staff, contractors and the communities as well reducing the risk among high risk groups such as commercial sex workers and young people in close proximity to construction activities.

g. Community Development Plan

- 28. The community development plan focuses on the key cross-cutting issues of health, gender, cultural heritage and labour management which impact beyond the resettlement and host zones.
- 29. **Objective**. The objective of the community development plan is to avoid the risks specific to women, children and youth as well as on local culture that may result from the project. This is part of effort to ensure that their living standard is at least as well-off if not better-off than their living standard before the project. Another objective is to improve the status of women in the project area.
- 30. The community development plan, complements the other programs outlined above and in the REDPs. The community development plan consists of:
 - Gender Action Plan
 - Programs for Youth and Children; and,
 - Cultural Awareness/Heritage Preservation Program.
- 31. **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 of compensation, 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.
- 32. Youth and Children Program. The Youth and Children program focuses on the youth who have just finished school but are not continuing into further education. The program is centred around scholarships to develop occupational skills that will improve the chance of diverse livelihood options and greater opportunity. Other educational support linked to improvements of school buildings are contained with the relevant REDPs
- 33. 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 the Bolikhamxay Provincial Department of Information, Culture and Tourism, local people are encouraged to realize and later take a leading role in setting plans and management programs to promote, preserve and transfer their culture to the next generation.

34. The objectives of this program are to develop an inventory of historical and archaeologically important sites and items for appropriate management of such items to avoid or if not possible to mitigate adverse impacts. A village museum will be created as a central point for these items and activities will support local culture and heritage. There will also be protocols for contractors in case of chance discovery of cultural artefacts during construction or operation.

h. Monitoring

- 35. **Targets**. Monitoring of measures in the REDP are directly linked to Livelihood and Income Restoration targets as defined in the Concession Agreement. There are two targets for evaluation and monitoring of the SDP:
 - To follow the progress of each plan, both in terms of the accomplishment of each activity, and the indicators of social outcomes; and
 - To identify problems or obstacles during implementation. If necessary the relevant plan or program will be adjusted to ensure overall success.
- 36. **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 have started up with support from the company but can then be operated by 3rd 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.
- 37. **Indicators**. The social indicators which are used to evaluate the success of the social development plans are household income, school attendance, literacy rate, operation of health facilities and nutritional status of children, 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.
- 38. **Schedule**. The schedule of reporting of each sub-plan or sub-program is described, listing the frequency of data collection and 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 started with the commencement of main construction in the second half of 2014.
- 39. 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 success of the NNP1 Social Development Plan for all stakeholders involved.

This version of the SDP has been published in October 2016 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.

Abbreviation	Full Name	
ADB	Asian Development Bank	
AIDS	Acquired Immune Deficiency syndrome	
Aps	Affected People	
ARI	Acute Respiratory Infection	
В.	"Ban" - Village in Laotian Language	
BCS	Broad Community Support	
BOD	Biological Oxygen Demand	
ВООТ	Build-Own-Operate-Transfer	
ВОТ	Built-Operate-Transfer	
CA	Concession Agreement	
CAD	Computer Assisted Drafting	
CBR	Crude Birth Rate	
CDF	Community Development Fund	
CMR	Child Mortality Rate	
COD	Commercial Operations Date	
DCC	District Coordination Committee	
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	
DMD	Deputy Managing Director (NNP1PC)	
EAMP	Environmental Assessment and Management Plan	
ECCD	Early Childhood Care for Development	
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	
ЕМО	Environmental Management Office	

EMU	Environmental Management Unit	
EOD	Explosive Ordnance Disposal	
EPI	Expended Program of Immunization	
ESD	Environment and Social Division	
FSL	Full Supply Level	
GOL	Government of Lao PDR	
GRID	Gender Resource and Information Development (GRID) Center	
Н/Н, НН	Household	
HIV	Human Immune Deficiency Virus	
HRD	Human Resources Development	
IAP	Independent Advisory Panel	
IFC	International Finance Corporation	
IMA	Independent Monitoring Agency	
IMR	Infant mortality Rate	
IPDP	Indigenous Peoples Development Plan	
JBIC	Japan Bank for International Cooperation	
JICA	Japan International Cooperation Agency	
JSC	Joint Steering Committee	
KANSAI	The Kansai Electric Power CO.,INC.	
LACP	Land Acquisition and Compensation Plan	
LAK	Lao Kip	
LANIC	Lao National Inter Committee	
LAR	Land Acquisition and Resettlement	
LFNC	Lao Front for National Construction	
LHSE	Lao Holding State Enterprise	
LIRP	Livelihood and Income Restoration Plan	
LNCE	Lao National Committee for Energy	
LNFC/LFNC	Lao National Front for Construction / Lao Front for National Construction	
LNTA	Lao National Tourism Administration	
LPRP	Lao People's Revolutionary Party	
LRC	Livelihood Restoration Committee	
LRHS	Lao Reproductive Health Survey – 2000	
LSHE	Lao Holding State Enterprises	

LTA	Lenders' Technical Adviser	
LWU	Lao Women Union	
MCTPC	Ministry of Communication, Transportation, Post and Construction	
MDB	Multilateral Development Bank	
MEM	Ministry of Energy and Mines	
МІН	Ministry of Industry and Handicrafts	
MMR	Maternal Mortality Rate	
МОН	Ministry of Health	
MONRE	Ministry of Natural Resources and Environment	
MOU	Memorandum of Understanding	
N/A	Not Applicable	
NAFRI	National Agriculture and Forest Research Institute	
NBCA	National Biodiversity Conservation Area	
NGO	Non-Government Organization	
NNP1	The Nam Ngiep Hydropower Project 1	
NNP1PC	Nam Ngiep 1 Power Company	
NPA	National Protected Area (the preferred term is NBCA)	
NSC	National Statistics Centre (of Lao PDR)	
NTEC	Nam Theun 2 (NT2) Electricity Company	
NTFP	Non-Timber Forest Product	
NTPC	Nam Theun 2 Power Company	
NUOL	National University of Laos	
OHS	Occupational Health and Safety	
PAFO	Provincial Agriculture and Forestry Office	
PAP	Project Affected People	
PCPP	Public Consultation and Participation Process	
РНО	Provincial Health Office	
PPE	Personal Protective Equipment	
PRA	Participatory Rural Appraisal	
PRLRC	Provincial Resettlement and Livelihood Restoration Committee	
PRP	Preliminary Resettlement Plan	
QA	Quality Assurance	
RAP	Resettlement Action Plan	

RMU	Resettlement Management Unit	
RO	Resettlement Office	
SD	Social Development and Monitoring Section	
SDP	Social Development Plan	
SIA	Social Impact Assessment	
SMMP	Social Management and Monitoring Plan	
SMO	Social Management Office	
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/L	Transmission Line	
TA	Technical Assistance	
ТВ	Tuberculosis	
TBA	Traditional Birth Attendant	
ТНРС	Theun-Hinboun Power Company	
TOR	Terms of Reference	
UNFPA	United Nations Population Fund	
UNICEF	United Nations International Emergency Children's Fund	
UXO	Unexploded Ordnance	
VDC	Village Development Coordination Committee	
VGRC	Village Grievance Redress Committee	
VHV	Village Health Volunteer	
VRC	Village Resettlement Committee	
WB	World Bank	
WHO	World Health Organization	
WMCA	Watershed Management Conservation Agency	
WQ	Water Quality	

CHAPTER 1 - Introduction

40. 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 includes the 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. The SDP provides plans to mitigate these direct and indirect impacts and how they may be operationalized during the project's lifetime, and the plan 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. Table 1 indicates which of the 10 documents required by the Concession Agreement that have been updated incorporating new information experiences from consultations and ongoing implementation of programmes.

Number	Document	Updates available on NNP1 Website
1	Environmental Impact Assessment (EIA)	
2	Environmental Management Plan (EMP)	The ESMMP is currently under review and an update will be made public shortly after completion of this SDP Update.
3	Social Impact Assessment (SIA)	
4	Resettlement and Ethnic Development Plan (REDP)	Zone Specific REDP updates are available for Zone 3, Zone 5 and Graves. Updates for Zone 2LR and Zone 2UR are being developed and will be made public shortly after completion of this SDP Update
5	Social Development Plan (SDP)	This document
6	Initial Environmental Examination (IEE) of the Transmission Lines	
7	The Initial Environmental Examination (IEE) of the Access Road	
8	The Land Acquisition and Compensation Management Plan for the Access Road (LACMP-AR)	
9	The Land Acquisition and Compensation Plan for the Transmission Line (LACP-TL),	
10	Initial Environmental Examination (IEE) of the resettlement area	

Table 1 Social and Environmental documents by the Nam Ngiep 1 Hydropower project and their updates

1.1 Scope of the SDP

41. The relationship of the SDP and other related documents is set out in the following table.

Project Area	REDP- covered Impacts	SDP-covered Impacts / Action Plans	Operational relevance	Target Groups
Upstream (Z1)	N/A	Health Gender	Low	Children and Students, Families, Mothers
Upper	Yes,	Health		Children and Students, Families, Mothers
Reservoir	updated	Gender	High	Women
Section (2UR)	in 2016	Youth		Youth
		Culture		Community
Lower	Yes,	Health		Children and Students, Families, Mothers
Reservoir	updated	Gender	High	Women
Section (2UR)	in 2016	Youth		Youth
		Culture		Community
		Health		Children and Students, Families, Mothers, Camp Followers
Camalaniation	Yes,	Gender		Women
Construction	updated	Youth	High	Youth
Area (Z3)	2016	Culture	_	Community
		Labour / SMAP		Workers / Employees, Affected communities
Far Downstream (Z4)	N/A	Health	Low/ Medium	Children and Students, Families, Mothers
Host communities		Health		Children and Students, Families, Mothers, Camp Followers
and	Yes,	Gender		Women
resettlement	updated	Youth	High	Youth
site / near	2016	Culture		Community
downstream (Z5)		Labour / SMAP		Workers / Employees, Affected communities

Table 2 SDP and links to other key documents.

- 42. 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, the latter consisting of issues relating to vulnerability, gender, youth and children, and cultural awareness. The SDP includes the following updated plans
 - The Labour Management Plan
 - The Public Health Action Plan
 - The Social Management Action Plan; and
 - The community Development Plan, including
 - o The Gender Action Plan

- o The Youth Action Plan
- o Cultural Awareness / Heritage Plan
- 43. The SDP, together with the updated REDPs outline 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 guiding principle of the SDP, the REDPs and the respective updates 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. The scope of the SDP update covers a population larger than those immediately affected by land acquisition and resettlement.

1.2 SDP Process

- 44. 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. The 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).
- 45. Various methods were used to collect relevant data, including: population surveys, assets inventories, 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.
- 46. 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). A second update was completed between March and August of 2016, taking into consideration the findings of the latest socio-economic survey of the project affected communities, the needs and priorities of these communities which was obtained through consultations held since 2014 up to present, the baseline health survey report, and the lessons learned from implementation of activities since NNP1 started partly implementing some components of the SDP.
- 47. Steps for the preparation of this version of the Social Development Plan include:

	Year	Steps towards the development of the SDP
2007	First draft;	Review of the legal framework of Lao PDR and ADB policies and
2012	Update	guidelines;
2013/14	Revision	
2007	First draft;	Review of the detailed project design, feasibility studies and previous
2012	Update	social surveys;
2013/14	Revision	•

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 1st Survey	Socioeconomic and health survey, with full coverage in directly affected
2011 2 nd Survey	communities and sample surveys in the wider project area;
	Remark: Legally effective Baseline Surveys carried out in 2014
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;	Formulate the time schedule for the implementation of SDP;
2012 Update	
2013/14 Revision	
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;	Prepare detailed cost estimates for implementation of the SDP including
2012 Update	the costs for administrative overheads.
2013/14 Revision	
2014-2015	Review and analyse updated socio-economic survey data collected in all
	impact zones.
	Review Field Reports and Minutes of Meetings of Various Consultations
	held in all impact zones
2016 Revision	Update of all elements of the SDP completed, taking into consideration
	the findings of the latest socio-economic survey of the project affected
	communities, the needs and priorities of these communities which was
	obtained through consultations held since 2014 up to present, the
	baseline health survey report, and lessons learned from implementation
	of activities since NNP1 started partly implementing some components
	of the SDP
	I .

Table 3 Development Steps to Produce the SDP

CHAPTER 2 - Summary of Social Conditions and Project Impacts

48. 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

49. 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 4 at the end of this section. Expected impacts and SDP summary baseline information are described by zone in sections 2.2 to 2.7. Results of the 2014 Baseline Socio-economic Survey is presented in Annex F.

No	Province	District	Village	No. of	No. of P	opulation	Project Area		
NO	Province	Province District		HH	Total	Female	Project Area		
Zone	1- Upstream Are	ea							
1			Thaviengxay	267	1,646	981			
1			(Dong)	207	1,040	901			
2			Phonngeng	95	771	371			
3			Nasong	111	681	240	ı		
4	Xaysomboun	Thathom	Viengthong	107	617	252	Upstream of		
5			Nasay	51	270	170	the Reservoir		
6			Xiengkhong	102	546	266			
7			Nahong	92	543	273			
8			Phonhom	180	1,200	557			
Tota	1			1,005	6,274	3,110			
Zone	Zone 2 Upper Reservoir area								
9			Pou	172	1,129	557	OLID Harran		
10	Xaysomboun Thathom		Piengta	82	454	210	2UR - Upper section of the		
11			Hatsamkhone	74	453	233	Reservoir		
Total				328	2,036	1,000	Nesei voii		

No	Province	District	Village	No. of	No. of P	opulation	Project Area
NO	riovince	District	Village	HH	Total	Female	Project Area
Zone	2 Lower Reservo	oir area					
12			Houaypamom	37	254	122	
13	Varroomboun	Llom	Sopphuane	58	416	206	2LR - Lower
14	Xaysomboun	Hom	Sopyouak	126	916	439	section of the
15			Namyouak	163	1,149	564	Reservoir
Total	_			384	2,735	1,331	
Zone	2 3 – Construction	Area					
16	Bolikhamxay	Bolikhan	Hatsaykham (sub-village)	33	218	108	Construction Area
Zone	4 – Far Downstre	eam Area	.				
19			Nampa	84	584	293	
20		Bolikhan	Somseun	221	1,207	602	D
21			Houykhoun	358	2,180	1,076	Downstream
22			Thong Noi	165	839	410	of the
23	Bolikhamxay		Thong Yai	86	437	218	re-regulation dam and host
24		Da1	Sanaxay	274	1,156	582	
25		Pakxan	Phonsy	137	719	369	villages/ resettlement
26			Pak Ngiep	173	859	430	
27			Sanoudom	94	457	221	area
Total				1,592	8,438	4,201	
Zone	5-Resettlement a	nd Near Dov	vnstream Area	· · ·		•	
17			Hat Gniun	67	371	157	
18	Bolikhamxay	Bolikhan	Thahuea	50	265	122	Resettlement
Total				117	636	279	area
Trans	smission Lines : 2	4 villages		l e			
1			Hat Gniun	67	371	157	
2		Bolikhan	Houykhoun	358	2,180	1,076	
3			Nampa	84	584	329	
4			Thong Noi	165	839	410	
5	Bolikhamxay		Thong Yai	86	437	218	
6		Pakxan	Sanaxay	274	1,156	582	
7			Anusonxay	390	1,120	N/A	
8			Pak Ngiep	137	659		Trans
9			Xaysavang	87	123	N/A	mission Lines
10			Vuenthat	356	523	N/A	mission zines
11			Pakthouay Tai	126	278	N/A	
12			Pakthouay Neu	174	391	N/A	
13			Nongkuen	256	342	N/A	
14	Bolikhamxay	Thaphabat	Sisomxay	275	371	N/A	
15			Thabok	364	946	N/A	
	16 17		Palai	221	315		
			Somsaath	-	321	N/A N/A	
			Na	121 179			
18					462 749	N/A	
19			Viendae	125	749	N/A	
20			Xienglea Na	115	639	N/A	
21	Vientiane	Pak Ngum	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	

No	Province	District	Village	No. of	No. of P	opulation	Project Area
140	riovince	District	v mage	HH	Total	Female	rioject Area
Total				4,851	15,554	N/A	
Acces	ss Road 4 villages	and 1 sub-vi	llage				
1			Hat Gniun	67	371	157	
2			Hatsaykham	33	218	108	
3	Bolikhamxay	Bolikhan	Thahuea	50	265	122	Access
4			Nonsomboun	169	956	472	Road
5			Sisavath	340	1858	941	
Total				659	1,167	538	

Table 4: 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)

- 50. Households in zone 3 and 2LR, who will have to resettle, are provided with the option between Resettling to the HSRA or organize their own resettlement, through the Self-Resettlement Program. The final choice survey, in which households indicate their choice between these programs is currently ongoing. Those households choosing self-resettlement, will be assisted by the project in preparing a Self-Resettlement Plan, which will be provided to the DCC, RMU and PRLRC for approval. (See REDP U2LR Annex F). Part of the information contained in the Self-Resettlement Plan is the location the self-resettlers will relocate to and an acceptance letter by the village authorities on receiving the household. Acceptance by a community to receive a self-resettling household is based on the local and district authorities, who must provide the acceptance letter by village authorities and approval of the self-resettlement plan by the DCC.
- 51. Currently, it is not known where self-resettling households will move to, since their self-resettlement planning is ongoing.

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.

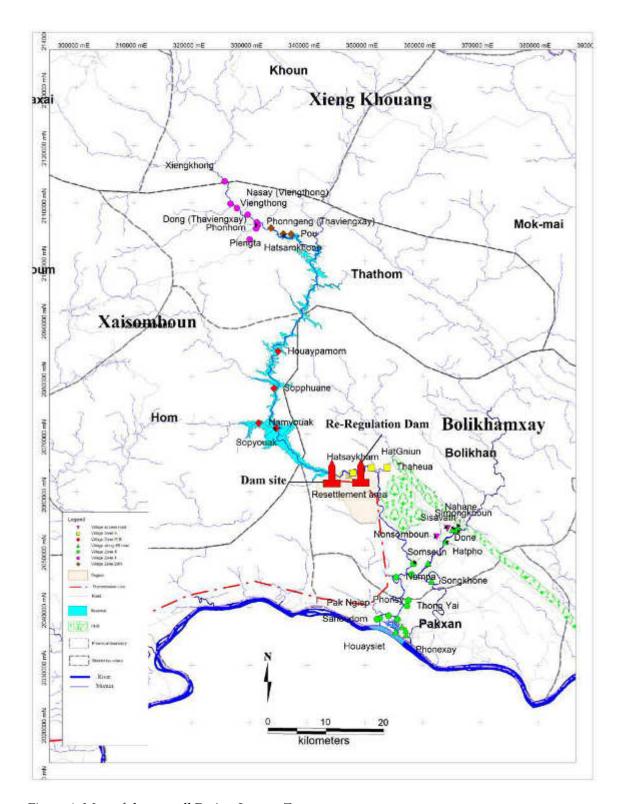


Figure 1. Map of the overall Project Impact Zone

2.2 Zone 1 - Upstream Area

52. 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 Xiengkhong (cp. Table 4).

- 53. The possible impact to the communities in this zone results from their sharing of the Nam Ngiep River and its watershed¹. 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.
- 54. 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.
- 55. 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 Xiengkhong also have received new households from elsewhere.
- 56. 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**

57. Zone 2 covers the area affected by the 320m MSL reservoir and thus communities in zone 2 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 8 households will relocate within village boundaries. Communities in the lower section of the reservoir, designated as Zone

¹ More direct impacts these communities experience from a second hydropower project upstream.

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

- 58. 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.² 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.
- 59. Expected impacts to the area from the inundation of the reservoir at 320 m MSL are that 7 households in Ban Pou and 1 households in Hatsamkhone will need to be relocated to a higher elevation because their residential land will be flooded. Details on the population and impacted households are listed in Table 5. 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 Update Zone 2UR.

		Population		Ethnicity			Direct	ly Affected	Ethnicity		
Village	НН	People (Total)	People (Fem.)	Hmong	Lao Loum	Khmu	нн	Population	Hmong	Lao Loum	Khmu
Hatsamkhone	80	499	239	-	77	3	63	429	-	65	2
Piengta	84	447	219	4	80	-	42	199	-	38	-
Pou	188	1,245	598	122	63	3	78	494	21	55	2
Other Village	NA	NA	NA	NA	NA	NA	28	NA	NA	NA	NA
Total	352	2,191	1,056	126	220	6	211	1,122	21	158	4

Table 5 Population and Impact in zone 2UR (Asset registration 2016).

60. Asset registration in this zone is completed and land acquisition is currently ongoing.

2.3.2 Lower Reservoir Area

61. The Lower Reservoir Area (2LR) covers the lower section of the 320m MSL reservoir, where 4 villages will be completely inundated: Ban Houaypamom, Ban Sopphuane, Ban

² 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 NNP1.

Namyouak, and Ban Sopyouak. Because of complete inundation of residential areas and main agricultural land, all 481 households (see Table 6 below) 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 Update Zone 2LR.

Village Name	нн	Populatio	n 2011 HH		Populatio	JII 2 011	Annual
+		(Total)	(Fem.)		(Total)	/T \	Population Growth Rate
Houaypamom	37	254	122	44	311	149	7%
Sopphuane	58	416	206	77	495	248	6%
Sopyouak	126	916	439	173	1,101	534	6%
Namyouak	163	1149	564	187	1,290	626	4%
	384	2735	1331	481	3,197	1,557	5%

Table 6 Population Profile of Zone 2LR in 2011 and 2014 (Source: Census 2014)

- 62. 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.
- 63. Asset registration in this zone is completed and land acquisition is currently ongoing.

2.4 Zone 3 - Construction Area

- 64. 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 reregulation reservoir, all 39 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.
- 65. Details on this zone are outlined in the REDP Update Zone 3. Land acquisition in this zone is

completed.

2.5 **Zone 4 - Downstream Area**

- 66. This zone covers the catchment area of the Nam Ngiep River downstream from the reregulating 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.
- 67. 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

68. 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 6,108 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 Update Zone 3 and REDP Update Zone 2LR.

69. 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.

Community	Households	Population	Females	Affected Households	Ethnicities
Ban Hat Gniun	72	393	171	65	Lao
Ban Thahuea	55	300	145	0	Lao, Khmu
Ban Somseun	221	1207	602	26	Lao
Total	348	1900	918	91	

Table 7: Population profile of Ban Hat Gniun & Thahuea (Source: Confirmation Survey 2014)

70. Details on the land acquisition and corresponding compensation programs for this zone are outlined in the REDP Update Zone 5. Land acquisition and compensation is completed in this zone.

2.7 Summary of Impacts and Necessary Mitigation Measures

- 71. 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.
- 72. 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.
- 73. 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.
- 74. 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 Update Zone 2LR. 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.
- 75. 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 U3, 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.
- 76. 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.
- 77. Those in Zone 5, Hat Gniun village and Thahuea village, located next to the resettlement

area, is 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.

- 78. Some households living along the Transmission Line and along the Access Road 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-CP3 documents, while gender issues are addressed in the LACPs as well as in the SDP.
- 79. 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.

³ ESMMP-CP: Environment and Social Management and Monitoring Plan - Construction Phase

Project Area	REDP- covere d Impact s	SDP- covered Impacts / Action Plans	Opera- tional rele- vance	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	LAR due to	Health		Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition
Section	inundat ion,	Gender	Med	Women	Gender Mainstreaming, Schooling, Decision Making
(2UR)	EDP	Youth		Youth	Schooling, income generation, preventive health
Lower	LAR	Culture Health		Community Children and Students, Families,	Local history, cultural artefacts Malaria, Immunization, Food & Water Quality, De-worming, nutrition
Reservoir Section (2UR)	due to inundat ion,	Gender	High	Mothers Women	Gender Mainstreaming, Schooling, Decision Making
(20K)	EDP	Youth Culture		Youth	Schooling, income generation, preventive health Local history, cultural artefacts
	LAR	Health		Children and Students, Families, Mothers, Camp Followers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition, STD
Constructi	due to inundat	Gender	TT: 1	Women	Gender Mainstreaming, Schooling, Decision Making
on Area (Z3)	ion and project	Youth	High	Youth	Schooling, income generation, preventive health
(' ')	facilitie s, EDP	Culture Labour, Social Impact of Labour		Community Workers / Employees, Affected communities	Local history, cultural artefacts Employment policy, skill training for locals, community management, workers / employees health; prevention of social disturbance
Far Downstre am (Z4)	N/A	Health	Low/ Med	Children and Students, Families, Mothers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition; Water Supply Program
Host communit ies and resettleme nt site /	LAR due to develo pment of	Health	High	Children and Students, Families, Mothers, Camp Followers	Malaria, Immunization, Food & Water Quality, De-worming, nutrition, STD

Project Area	REDP- covere d Impact s	SDP- covered Impacts / Action Plans	Opera- tional rele- vance	Target Groups	Themes
near downstrea m (Z5)	resettle ment site, EDP	Gender		Women	Gender Mainstreaming, Schooling, Decision Making
	EDI	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
	LAR	Health	Med	Community	Road Safety (see ESMMP-CP Access Road)
Access	in LACP Access Road in details	Health	High	Labour/Commu nity	Camp Follower / STD
Road		Gender	Med	Women	Gender Mainstreaming, Decision Making
		Labour		Labour	Community management, workers / employees health
	LAR covered	Health		Community	Electricity-related safety (to be included in the ESMMP-CP Access Road)
Transmiss	in LACP	Gender	Med	Women	Gender Mainstreaming, Decision Making
ion Line	Transm ission	Labour		Labour	Employment policy, skill training for locals, Community management, workers / employees health
Transmiss	Line in	Health	Med	Community	Electricity-related safety (to be included in the ESMMP-CP Access Road)
ion Line	details	Gender		Women	Gender Mainstreaming, Decision Making

Table 8: REDP and SDP covered Project Impacts

CHAPTER 3 - Institutional Arrangement

- 80. While it is the responsibility of the project owners and developers to mitigate any adverse social and environmental impacts and enhance the lives and livelihoods of the people in the project area, 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.
- 81. The overall institutional arrangements for NNP1 are laid down in the Concession Agreement based on standard arrangements for hydropower projects in Laos. The institutional arrangements are intended to ensure effective collaboration and cooperation among the involved Government organizations and the Company and thereby support effective implementation of the environmental and social mitigation measures, development activities, and monitoring programmes, while also building the capacity of local residents, administrative organizations, and government agencies. 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.
- 82. 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.
- 83. The roles of GOL at national level are 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 includes 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.
- 84. An Environmental Management Unit (EMU) has been established in MONRE to undertake environmental compliance inspection and monitoring of the Project.
- 85. 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. 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.

- 86. At the project level, the Company 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 is 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. A GIS and information-analysis-and-documentation section, sit with the ESD, to provide services to both EMO and SMO (See Figure 21).
- 87. The overall framework of GOL-Project-cooperation is shown in Figure 20. This framework is indicative and might be modified during the implementation phase as agreed between the parties, while the detailed structure of ESD is outlined in Figure 21.
- 88. 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.

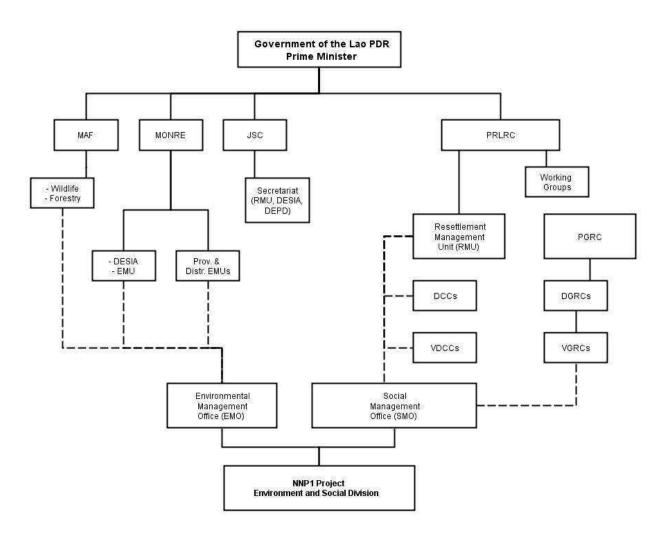


Figure 2 Government Institutional Arrangements.

3.1 Government Institutional Arrangements for the Project

89. 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.

Joint Steering Committee and Environmental Management Unit

90. 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.

91. 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.

Provincial Resettlement and Livelihood Restoration Committee

- 92. 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.
- 93. 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.
- 94. 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.

Resettlement Management Unit

95. 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.

96. The RMU is headed by a Manager, who has first-hand experience with resettlement, compensation and rural development issues. Two RMU Co-Coordinators 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.

District Coordination Committees

- 97. The PRLRC has established District Coordination Committees (DCC) on recommendation of the RMU in districts affected by the Project. The DCCs work under the supervision of the PRLRC and the RMU, and in cooperation with the SMO. The DCCs help implement the various registration surveys, resettlement, compensation, livelihood restoration, and other social development works of the Project. This includes 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.
- 98. The DCCs consists 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.

Village Development Coordination Committees

- 99. The DCCs have established Village Development Coordination Committees (VDC) as necessary in those villages affected by the Project. With the support of the SMO and DCCs, the VDCs are 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.
- 100. The VDCs 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, as members.

3.2 Overall Project Institutional Arrangements

Environment and Social Division

- 101. 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. For combined information management, a GIS-Database-knowledge management team is established under the ESD Information Management section. The tasks of ESD 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.
- 102. The responsibilities of the ESD include:
 - 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.
- 103. 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.
- 104. An ESD Deputy Managing Director (DMD) heads the ESD on a full time basis. He or she works closely with the SMO and EMO Managers, who are responsible for the work of their respective units. The DMD reports directly to the Managing Director of the Company. His or her role is 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.

105. 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.
- 106. 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. The Senior Environmental Specialist will assist with coordination with external monitors and manage the Safeguard and Monitoring section.

Information Management Section

- 107. The Information Management 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. The Information Management section consists of the following 3 Teams:
 - Database
 - Knowledge Management
 - GIS

(i) Database Team

- 108. The database team has the following tasks:
 - Operation of a database server system
 - Operation of an ICT data management system
 - Development of Social 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

 Development of Environmental Databases: Water Quality Monitoring database, Compliance database, Waste Management database, Flood Erosion Sediment Landslide database and other DB as necessary.

(ii) Knowledge Management Team

- 109. 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
 - Maintains final copies of EMO and SMO reports
 - Request posting of final EMO and SMO documents on the company website.

(iii) GIS Team

- 110. 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
 - Production of maps for the EMO, including, but not limited to water quality monitoring
 maps, hydrological station maps, biomass clearance planning and progress maps,
 biodiversity offset maps, watershed management maps and other maps as required.

Environmental Management Office

111. 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.

112. 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.

Social Management Office

- 113. The social aspects of the Project are being 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 Government Relation section and a Community Relation and Grievance section.
- 114. The SMO is headed by an experienced manager, with extensive experience in managing large scale projects, including work with other Hydropower companies. His work is assisted by an Ethnic Specialist, a Social Specialist, four Deputy Managers, each lading a specific section of the SMO program and four Team leaders, each leading a specific team. Support is provided by the secretary and budget management officer (See Figure 21).
- 115. The Ethnic Specialist will support the SMO Manager with his vast knowledge of the Hmong culture, communicating in Hmong language with PAPs while building bridges and improving mutual understanding between the PAPs and the project. He will inform the project regarding rituals, ceremonies and other cultural aspects of importance for the resettlement preparation and implementation.
- 116. The Social Specialist will support the SMO Manager with his knowledge of safeguard policies extensive experience in implementing resettlement programs and detailed knowledge on the social documents.

(i) Infrastructure Section

117. The Infrastructure section works 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.

- 118. The Unit is headed by a Deputy SMO Manager with proven infrastructure development experience, who reports directly to the SMO Manager, and works closely with the RMU and other GOL support staff (see below).
- 119. The tasks of the team in the Infrastructure Section include:
 - Coordination 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

(ii) Resettlement Section

- 120. The Resettlement section works 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 carries 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.
- 121. The section is headed by a Deputy Manager who reports directly to the SMO Manager, and works closely with the RMU and other GOL staff. The section includes a livelihood team and a resettlement preparation team. The teams may be split to provide the necessary field support in both Project-affected provinces.

(a) Resettlement Preparation Team

122. The activities of the resettlement preparation team encompass all activities to implement a successful resettlement of people from 2LR and Z3 to the Houaysoup resettlement site, to provide pre- and post-impacts livelihoods support, and to ensure cooperation with host

communities including but not limited to:

- Coordination 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
- Coordinate the assistance provided to Self-Resettlers for preparation of their Self-Resettlement plans
- Further tasks of every team of the resettlement section as outlined below

(b)Livelihood Team

- 123. 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

(iii) Relocation and Livelihood 2UR

124. In Zone 2UR, a site-office of the SMO was established and has been operational since 2015. From this site office, the Deputy Mangers for 2UR coordinates all activities taking place in 2UR. This includes directly managing the 2UR livelihoods Team, 2UR Relocation team and 2UR

infrastructure team and coordinating the works of the thematic cross cutting teams who do not have staff permanently based in 2UR.

125. The main tasks include:

- Conduct regular consultation with the DPs, VDC and DCC, reviewing activities implemented and scheduling for upcoming activities.
- Implementing all aspects of the Livelihood program in 2UR, including pilot farmer selection, implementing farmer training programs, provision of material and technical support
- Design and implement the construction of public and private infrastructure in 2UR, including upgrade of village access roads, upgrade of clinic, upgrade and expansion of schools, upgrade of village water supply systems, construction of bridge across the Nam Ngiep river, construction of agricultural road on the right bank of the Nam Ngiep.
- Preparation for land acquisition and compensation program
- Support the implementation of activities from the Social Development Section

(iv) Social Development Section

- 126. The Social Development Section is considered a cross-cutting section which works in all project zones. Accordingly, most of the staff of the Social Development Section will be moving between the different fields offices, depending on the tasks needed to be implemented at that point in time.
- 127. The Social Development (SD) Section has primary responsibility for all health programs, education programs, labour Management and camp followers, vulnerable households and gender & ethnic development.
- 128. The Section is headed by an experienced Deputy Manager with proven social mitigation and development project experience, who reports directly to the SMO Manager and works closely with the relevant GOL agencies and staff. The SD section will seek intermittent input from external specialists as required, 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.
- 129. The main tasks of the four teams in the Social Development and Monitoring Section will consist of the following:

(a) Health Team

- 130. 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 pre and post resettlement health checks to detect any 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;

(b) Education Team

131. 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

(c) Ethnic and Gender Team

132. 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
- Implement programs outlined in the Gender Action Plan

(d)Labour Management and Camp followers Team

- 133. The Labour Management and Camp followers Unit has the following tasks:
 - Coordinate with other members of the CCC to ensure the implementation of the Labour Management Plan and camp followers program
 - 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
 - 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
 - Implement the various camp followers awareness programs
 - Coordinate with the police stationed in Hat Gniun police office
 - Coordinate with the District Health department on implementation of STD/HIV trainings and regular monitoring of the camp followers area.

Besides the above mentioned four sections headed by experience Deputy Managers, the following 4 team report directly to the SMO Manager:

(i) Project Lands and Compensation Team

- 134. 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
- Undertake the indicative and final choice survey.
- Coordinate with the RMU to undertake cash compensation to entitled PAPs via Bank Accounts

(ii) Grievance Team

- 135. The Grievance Team 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. This includes the following tasks:
 - Establishment and strengthening of the GRM, including training of VGC and DGC
 - Ensure that all affected households are familiar with content and mechanisms of the Grievance Procedure.
 - Support the district grievance committee through the provision of relevant project and field data as evidence for Grievance investigations
 - Maintain the project record of Grievance cases
 - Inform the compensation team if a grievance is found to be valid, to make compensation payments accordingly.

(iii) Government Relation and Community Relations Team

136. The government and community relation team is the team coordinating between the Government counterparts, the community and the SMO. They arrange, prepare for, schedule and follow up with the minutes of meetings for regular coordination meetings as well as for topic specific meeting with the Village representatives, DCC, RMU and PRLRC. An in-house translator provides translation of the various GOL decrees and policies issued by the various counterparts.

(iv) Socio Economic Monitoring Team

137. The socio economic monitoring team is responsible for implementing the socio economic monitoring programme, which was initiated in 2014. The programme consists of two main activities: (i) collection of the baseline survey (2014) and subsequent bi-annual large scale socio economic survey, the Biennial Socio-Economic Survey. This is a detailed and large-scale household survey (>1400 households) undertaken every two years by external contractors to evaluate household incomes and well-being in accordance with CA requirements; and (ii) implement the Ongoing Social Economic Monitoring survey, which consists of a series of small scale surveys and monitoring activities designed to identify emerging socio-economic issues and track household well-being in the short-term cycle. An international consultant is contracted to analyse the data collected and report on it accordingly.

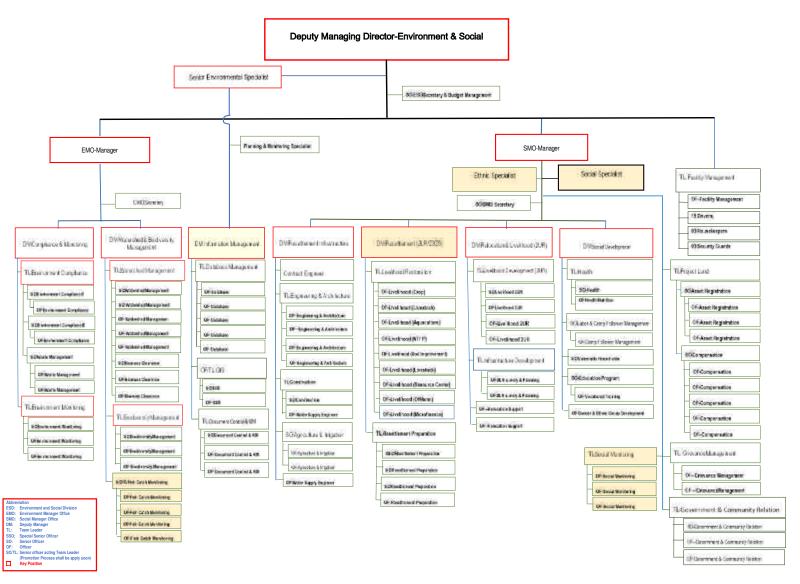


Figure 3 ESD organizational chart (2016)

3.3 External Monitoring

138. External monitoring is being conducted by experts who are highly experienced and are not involved directly in any work of the Project. The experts have extensive experience with the social issues in the area and are familiar with the local language and socio-economic conditions. Three institutions form the main agencies of external monitoring: the Independent Advisory Panel (IAP), the Independent Monitoring Agency, and the Lender's Technical Advisors (LTA). All institutions are currently in place and implementing their tasks. 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.

Independent Advisory Panel (IAP)

- 139. 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 reputation and high degree of knowledge on their specific field of expertise. The IAP will 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.
- 140. During the Construction Phase and for two years following the Commercial Operation Date, the IAP will visit the project area twice a year or more often if required to adequately monitor the progress of meeting the Safeguards. 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.
- 141. 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.

Independent Monitoring Agency (IMA)

- 142. 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 is 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.
- 143. The Company and the GOL shall continue to 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.
- 144. The IMA was recruited in Q2 2016 by MONRE and their first exploratory mission to the project site was conducted in June 2016. The IMA consists of 5 members, a Lao Team Leader with extensive experience in resettlement and a Lao Deputy Team Leader with extensive experience in Environment, assisted by 3 international experts; a social and environmental expert, a biomass and water quality expert and a social economic development expert.

The Lenders' Technical Advisor

- 145. The Lenders' Technical Advisor (LTA) is monitoring the Project regularly in terms of progress in engineering, procurement and construction activities, and with respect to compliance with Lao laws and regulations and ADB's environmental and social policies and requirements.
- 146. International Experts in their respective fields regularly visit the Project and inspect plans and implementation along with reporting on 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.

3.4 Other Partner Organizations

- 147. While the Company has established strong expertise in-house as outlined above, it continues to 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.
- 148. A first, major step is the integration of civil society organizations into the Broad Stakeholder Forum, took place in Vientiane and Paksan in early May 2014. Comments and suggestions were taken up 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.
- 149. The Rural Development Agency (RDA), is a civil society organization engaged by the project since 2015 to implement a multi-year training program as part of the overall Water and Sanitation Program, specifically implementing the Community Led Total Sanitation (CLTS) and School Lead Total Sanitation (SLTS) components.
- 150. In 2015, the SMO livelihood program co-operated with the National University of Laos on a student training program, accepting 4 students to conduct a 5 month internship program as part of their study. Based on the developing livelihood programs and students availability, the program will continue in the future.

3.5 Construction Contractors and Subcontractors

151. Certain mitigation measures related to labour and environment are implemented by the contractors and/or subcontractors. Day to day supervision of the contractors/ subcontractors is part of construction supervision carried out by supervision and safety engineers. Monitoring compliance with environment, health, and social standards is the responsibility of the ESD.

Thereby, the Project uses a collaboration of several departments, involving staff from both TD and ESD divisions of NNP1PC: SMO, EMO, Infrastructure and TD, with TD taking the lead in coordinating the activities with the main contractors and their subcontractors. 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.

- 152. This collaboration 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.
- 153. Contractors are hired in accordance to the procurement policy, approved by the BoD. Contracts include clauses covering measures such as:
 - Code of Conduct
 - The requirement to comply with the national labour laws
 - The requirement to comply with the national environmental laws
 - Liability insurance to cover third party claims for death or bodily injury, or loss of or damage to property

There are currently 4 main contractors with 14 subcontractors working on the dam and power house construction, 11 contractors working on the Resettlement Infrastructure construction in the HSRA, 1 contractor working on the biomass removal in 2LR and 3 contractors on the public infrastructure facilities in 2UR.

3.6 Grievance Redress Committee

- 154. 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.
- 155. 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.
- 156. The purpose of the grievance procedure is to ensure that all PAPs have the means to assure that they have been adequately and satisfyingly protected from any 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 in all project zones, since most of the environmental impacts are those that affect people.
- 157. 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 22, 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 is at a provincial level wherein the GRM can convene another 20 days after formal receipt of the grievance.
- 158. The dispute mechanism for workers follows the Lao Labour Law. Initially, workers should address disputes through dialogue with their employer. If this fails, then the grievant can contact the Lao Labour Union representative permanently based in Hat Gniun village. The Project provides ongoing support the Lao Labour Union (LLU) to establish a Project branch in the construction area in Hat Gniun. One person is permanently based in the office located in the same building as the representative from the Lao Trade Federation and Police. 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 as per Article 148 of the Lao Labour Law on Dispute Resolution, initially 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.

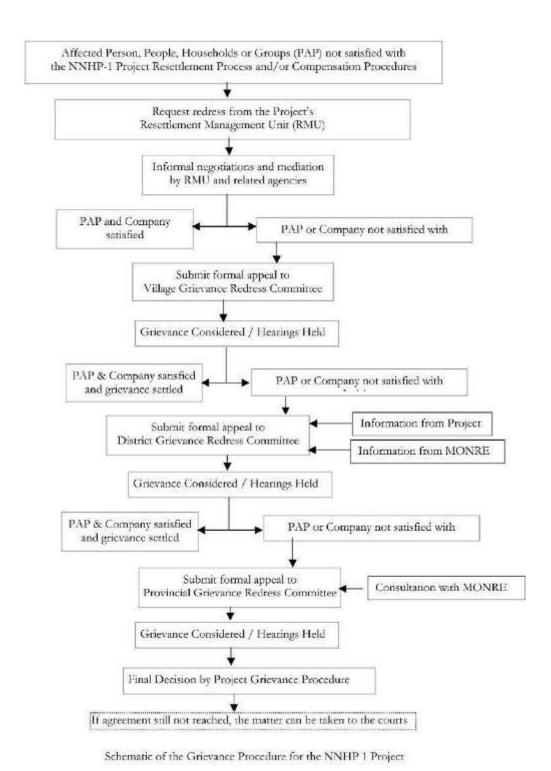


Figure 4 Schematic of the Grievance Procedure for the NNP1 Project (Source: CA, Annex C, Appendix 8)

CHAPTER 4 - Public Health Action Plan

4.1 PHAP Process

159. In 2016 the Social Development Plan (including the PHAP) were updated based on baseline surveys and updated REDMPs.

Year	Steps towards the development of the PHAP
2007 First draft; 2012 Update	Review of the legal framework of Lao PDR and ADB policies and guidelines. 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 PHAP design
2007/8 1st Survey 2011 2nd Survey	Health survey, with full coverage in directly affected communities and sample surveys in the wider project area;
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	Formulate the time schedule for the implementation of PHAP;
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 PHAP including the costs for administrative overheads
June 2014	Updated PHAP and monitoring plan submitted following extensive review and field visits. – PHAP submitted for approval.
4 th Quarter 2014 – 1 st Quarter 2015	Baseline Health Survey completed
March 2016	Updated PHAP and monitoring schedule following baseline survey and review of implementation to date.

Table 9 Development of the PHAP

160. The objectives of the PHAP are;

- to prevent and mitigate adverse health impacts in the communities affected by the project;
- to improve the health situation of local people, including residents in the resettlement villages, with special attention on strengthening skills of village health workers and to contribute to the development of improved access to quality health services in the wider project area by offering training to health centre and district staff where relevant

- to improve health care facilities for resettled communities with new infrastructure development
- to implement GOL policy utilising the 'Healthy Model Village' strategy that is a community led approach to improve hygiene, sanitation and management of safe drinking water. This approach sits well with community based nutrition and maternal and child health work designed to improve outcomes for mothers and children which will also be an integral part of the plan for the resettlement area.

4.2 Target Population/Beneficiaries

- 161. The Public Health Action Plan is based on the health impact assessment and has been updated based on the baseline health survey and implementation experience.
- 162. The plan aims to mitigate and avoid potential adverse health effects from the Nam Ngiep 1 Hydropower Project on project affected people. The interventions will vary in intensity based on level of impact and have been refined following the baseline survey and consultation with relevant authorities as well as the villagers themselves.
- 163. The health programs is being implemented along with district and provincial health units, and aims to improve the standard of their ability to respond to local health issues. The program for resettled communities and host communities is being jointly coordinated and supervised by the company and the 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
- 164. The PHAP is grounded in the following guiding principles:
 - Actions shall be based on a combination of knowledge and experiences of public health policies and practices, be sustainable and build on existing structures.
 - Local empowerment: communities and vulnerable groups play an important role of decision making in the planning and implementation as outlined in detail in the HIA, supporting a bottom-up approach.
 - Networks and partnerships at national, provincial and local levels are the mechanisms most likely to optimize the use of limited resources and provide equity of access to national, provincial and local public goods through implementation of the action plan.
- 165. There are already a significant number of other stakeholders (INGOs and NGOs) working in the health sector and efforts to avoid duplication of support will be made.
- 166. Activities have been timed (and may need to be adjusted) around the construction and resettlement schedule and emerging health issues as required.

- 167. The PHAP supports and is in line with GOL policies on primary health care including;
 - Improvements in quality and expansion of the network of health facilities
 - Education about health information and health data so that people can make informed decisions relating to their health
 - Clean water and access to sanitation which the company will add value to by using proven behaviour change techniques
 - Immunization for all target populations a gap analysis will be carried out to determine the best way to support this program
 - Mother and Child Health (Integrated Management of Childhood Illness, Breastfeeding, Reproductive Health, Birth spacing)
 - Safeguarding the nutritional status of children
- 168. The Concession agreement contains references to specific health activities that will be implemented or monitored, these are listed in Table 10 below.

Concession Agreement Health Obligations

Baseline data for health must be recorded at Company's expense.

Company will make public information concerning the incidence of negative health effects on local populations

GOL has the right to conduct health monitoring at the Company's expense

Measure to address impacts of resettlement including community health and safety

Ensure the complete provision by the company to all Resettlers of electricity, health services

Regularly check the health status of PAPs and provide comprehensive treatment for health impacts directly or indirectly attributable to the project

Implement measures to protect the health of communities as described in the SDP

District coordination committee (DCC) will cooperate with SMO regarding health programs, preventative health measures, monitoring and training of local health workers to fulfil the need of affected communities, including sourcing adequate staffing for new and refurbished health centres to ensure improved services

Cooperating with SMO in consultations, women's health (maternal and child health, sanitation and birth control)....

Table 10 Health Obligations from the Concession Agreement

4.3 Health Impacts

169. Health impacts related to the project as set out in the Health Impact Assessment (HIA). These

impacts were identified in 2007/8 with further baseline data collected in 2014.

- i. A potential increase in respiratory diseases due to consolidation of villages.
- ii. A potential increase in vector borne diseases: malaria, dengue fever, J.B. encephalitis, scrub typhus with a change in water use in village settings and proximity to draw down areas of reservoir.
- iii. A potential increase in soil and waterborne diseases. This can be due to a combination of factors including potential contamination of village water supplies from construction camps and camp followers as well as changes of patterns of water use / river access.
- iv. A potential increase in prevalence of diseases that can be prevented through vaccination: hepatitis B, measles, tetanus of babies if vaccination levels are not maintained / increased.
- v. A potential increase in parasitic diseases: including opisthorchiasis, hookworm, whipworm and other soil transmitted helminths due to environmental changes that can increase exposure to parasites.
- vi. Psychosocial stress may exacerbate under-lying mental health issues which need to be identified prior to resettlement. Changes in social cohesion related to camp followers, alcohol and other substance abuse can also have detrimental effects.
- vii. Exacerbation of under-nutrition if food support during transitions to livelihood restoration phases is not adequate. Behaviour change activities linked to access to water, sanitation and hygiene programmes must be implemented alongside these programs to maximise benefit of infrastructure and break the faecal-oral transmission route of bacteria which will undermine any efforts to improve nutrition.
- viii. Possible increase in reproductive health problems: sexually transmitted diseases (STDs), including syphilis, gonorrhoea, Chlamydia, HIV/AIDS will need to be monitored and managed if required.
- 170. Issues that are managed, monitored and implemented by other teams, such as managing traffic risks, environmental issues linked to construction and the management of camp followers can be found in the Social Management Action Plan and the Labour Management Plan and relevant contractors environmental, health and safety plans.

4.4 Results of the baseline health survey

171. Village selection for the baseline survey conducted in the final quarter of 2014included all villages that will potentially be impacted by the project and a series of 'control' villages that will not be impacted but can be used for comparison as the project progresses. Control villages are initially selected based on their vicinity to the impacted area and perceived similarity to the impacted communities in socio-economic aspects, while at the same time not being directly impacted by the NNP1 project. In Hom district, the following 3 reference villages are selected for Zone 2LR: Houysay, Samsao and Homthad. For the downstream area, the following 6

control villages are selected: Patxoum, Songkhone, Thabor, Najik, Thasikhai and Hatpho. Households within these villages were randomly selected and each household has a unique identifier so that analysis of health data can eventually be correlated to socio-economic data such as income and education level. Analysis showed that the control villages were not comparable and so these villages will act as a "benchmark" for comparison over time rather than as a direct control.

- 172. Five parameters of significance were included in the design of the baseline health survey;
 - Anaemia in women of child-bearing age
 - Prevalence of contraceptive use amongst women aged 15 to 45
 - Biometric indicators for children under 5 years (stunting, wasting and underweight)
- 173. National surveys of anaemia prevalence in rural Laos was reported be to around 36% by UNICEF in 2011 and the monitoring of women of reproductive age in the project area will include Haemoglobin (Hb) levels and prevalence of anaemia.
- 174. The results of the survey are set out in the table below by zone. There was no statistically significant difference between zones but results (pre-project impacts) were lower than national averages in Zone 1 but are comparable in resettlement and host communities. It should be noted that there are high numbers of women on the threshold of anaemia and so a small change in Haemoglobin levels can have a dramatic effect on anaemia prevalence.

Zone	# Women tested	Anaemia (15-45y) (%)
Zone 1 Upstream	339	22
Zone 2 UR (Upper Reservoir)	50	34
Zone 2 LR (Lower Reservoir)	100	29
Reference villages group 1	126	23
Zone 3 (Hatsaykham)	46	30
Zone 4 Downstream	105	28
Zone 5 Host Villages	71	22
Reference villages group 2	184	20

Table 11 Anaemia Prevalence by Zone

175. Contraceptive prevalence in women between 15 and 45 is shown in the tables below disaggregated by age and then by zone. As can be seen uptake of contraception peaks between 30 and 34 and is lowest in the villages that will be resettled. There has been a lack of access to health services in these villages and there may be gender or cultural elements that affect uptake. Discussions with health staff in Zone 2LR revealed that all the health staff are male which may impact on willingness of women to access services.

Zone # Respon	ents Contraceptive use women aged 15-45 (%)
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Zone	# Respondents	Contraceptive use women aged 15-45 (%)	±Se
Zone 1 Upstream	320	56	± 3
Zone 2 UR (Upper Reservoir)	51	28	±8
Zone 2 LR (Lower Reservoir)	102	6	±3
Reference villages group 1	125	10	± 3
Zone 3 (Hatsaykham)	40	10	±4
Zone 4 Downstream	105	39	± 5
Zone 5 Host Villages	72	57	±6
Reference villages group 2	181	53	±4

Table 12Uptake of Contraception by Zone

Age	# Respondents	Contraceptive use by women aged 15-45 (%)	±Se
15-19Y	96	11	± 3
20-24Y	180	22	± 3
25-29Y	194	40	± 4
30-34Y	179	50	± 4
35-39Y	154	47	± 4
40-44Y	119	27	± 4
45-49Y	74	26	± 5

Table 13 Uptake of Contraception in Project Area by Age

176. The profile of wasting (weight for height) in children under 5 is again typical of rural Laos at just under 10%. It is interesting to note that the highest rate of wasting was found in the reference zone 1 and exceeds 10%. There was however, statistically no significant difference in wasting with age between 0 and 60 months and no significant difference in wasting between zones.

Zone	# children	Children Under 5 Wasting (%)
Zone 1 Upstream	336	8%
Zone 2 UR (Upper Reservoir)	123	8%
Zone 2 LR (Lower Reservoir)	125	9%
Reference villages group 1	164	14%
Zone 3 (Hatsaykham)	54	4%
Zone 4 Downstream	44	4%
Zone 5 Host Villages	39	7%
Reference villages group 2	27	7%

Table 14 Wasting by Zone

177. Stunting is an indicator of more chronic under nutrition and is a significant challenge for Laos with national figures at 44% in 2011. The highest levels of stunting occurs in Ref 1 zone (60%), which is also the poorest of all zones, followed by Hatsaykham (Zone 3) at 54%. The lowest levels were found in the second reference zone (20%) which is adjacent to the downstream zone

and close to Paksan.

	# children	Children Under 5
Zone		Stunted (%)
Zone 1 Upstream	336	51
Zone 2 UR (Upper Reservoir)	123	51
Zone 2 LR (Lower Reservoir)	125	45
Reference villages group 1	164	60
Zone 3 (Hatsaykham)	54	54
Zone 4 Downstream	44	27
Zone 5 Host Villages	39	33
Reference villages group 2	27	20

Table 15 Stunting by Zone

178. With a range from 12%-42% there were significant differences in the percentage of children that were underweight between zones. The highest prevalence of underweight children was in the reference zone 1 – which is also the poorest zone. With the lowest level in reference group 2 – near to Paksan.

Zone	# children	Children Under 5 Underweight (%)
Zone 1 Upstream	336	26
Zone 2 UR (Upper Reservoir)	123	20
Zone 2 LR (Lower Reservoir)	125	25
Reference villages group 1	164	42
Zone 3 (Hatsaykham)	54	26
Zone 4 Downstream	44	20
Zone 5 Host Villages	39	24
Reference villages group 2	27	12

Table 16 Underweight by Zone

4.5 **Health System Status**

- 179. The Ministry of Health developed 10 Minimum Requirements as a tool for assuring basic quality services at district hospitals and district health offices and there is a significant amount of ongoing work to address the challenges of human resources and access to services throughout the country. NNP1 aims to complement these sector improvement activities and not duplicate them.
- 180. The availability and capacity of adequately trained staff in several key areas of maternal and

child health remain a challenge. A study by WHO in 20124 citing a World Bank document reported that almost half of the staff in rural health centres had not received any kind of in service training. Where training had been provided it was not always appropriate to the context and so NNP1 will continue to adapt the training schedule to the needs of the population but ensuring that IMCI (Integrated Management of Childhood Illness) is followed and utilising MoH resources for training will be the cornerstone of the capacity development program.

4.6 PHAP Overview of Programs.

181. The following table sets out the activities and measures planned to address the potential health impacts. The PHAP therefore includes four sub-programs under the following categories;

1. Community health in resettlement areas;

This program is designed to address potential impacts listed in the HIA namely; Respiratory disease linked to consolidation of villages, potential increases in vector, water and parasite borne diseases and mental health impacts.

2. Community health in the Project Impact Zone;

This program is designed to address potential impacts downstream and in the wider project area linked to preventative activities such as complementing GOL outreach activities. This will include consultations with villagers to increase demands for vaccination and related services. This program will also work to integrate GOL surveillance and monitoring systems to enable the project to be able to respond to emerging issues that may be linked to project impacts.

3. **Capacity building for GOL staff** to include village health volunteers, health centres and district health office staff;

This program aims to support GOL efforts in improving health services to the project area and links to the new infrastructure that will be provided in the resettlement area and improvements to the health centre in Piengta. Where training is offered it will be opened to as wide a group as is feasible given the training style. It will include VHVs as well as clinical staff to reinforce the GOL treatment protocols such as IMCI. It will also aim to complement and utilise the MoH monitoring and response to emerging health issues of interest to the project.

4. **WASH and Nutrition;** A program which brings together Water and Sanitation 'hardware' and community development activities designed to being about behaviour change to benefit from the infrastructure. This includes activities linked to creating

⁴ Annex C, Clause 17.b.xvi and 17.c.ii.⁴Eff

demand for sanitation (Community Led Total Sanitation CLTS) Safe water storage and activities to improve hygiene and raise awareness of nutrition issues. A full description of this program can be found in Annex C

- 182. A series of planning workshops will be held to develop detailed implementation plans. This will involve RMU, central, provincial, district and village level agencies as required. This will be linked and prioritised according to identified potential project impacts, avoid duplication and complement GOL activities. These plans will form the basis of a MOU between the company and health authorities detailing roles, responsibilities and monitoring arrangements and is due for completion by Q3-2016.
- 183. The elements of the PHAP have been initiated and well received by the community and productive working relationships have already been developed particularly in Bolikhan district.

A 11 11	7 1	7 2110	7 OLD	7 0	7 4	7
Activity	Zone 1	Zone2UR	Zone 2LR	Zone 3	Zone 4	Zone 5
		Upper Reservoir	Lower Reservoir	Access Road (Hatsaykham)	Downstream	Resettlement /Hosts
Infrastructure		Water supplies HC renovation			Water supplies	New HC, Water supply, sanitation
Programme 1 Community Health in Resettlement Areas		+	+	+		+
Community consultations		+	+	+		+
Temporary health access (outreach or health post) until HC open				+		+
Support complementary elements of Integrated outreach (Education to increase demand for vaccination)		+	+	+		+
Integrated Community Health outreach implementation phase		+	+	+		+
Pre-resettlement health checks		+	+	+		+
Post-resettlement health checks		+	+	+		+
Programme 2 Community Health - Project Impact Zone	+	+	+	+	+	+
MoUs with relevant districts for activities to be implemented	+	+	+	+	+	+
Support complementary elements of Integrated outreach (Education to increase demand for vaccination)	+	+	+	+	+	+
Community Consultations	+				+	

Activity	Zone 1	Zone2UR	Zone 2LR	Zone 3	Zone 4	Zone 5
Programme 3 Capacity Building for GOL staff in project area	+	+	+	+	+	+
Workshop to develop service agreements with each provincial team	+	+	+	+	+	+
Training for VHV to support ICH activities	+	+	+	+	+	+
IMCI training	+	+	+	+	+	+
Clinical waste management training	+	+	+	+	+	+
Programme 4 Integrated WASH and Nutrition Program		+	+	+		+
CLTS / SLTS activities		+	+	+		+
Identify and capacity build at risk households		+	+	+		+
Full 'Healthy Model Village' program		+	+	+		+
Nutrition activities		+	+	+		+
Monitoring						
Pre / post resettlement health checks		+	+	+		+
Sentinel Monitoring for downstream water quality impacts					+	
Activity Linked Monitoring	+	+	+	+	+	+
Baseline / mid / end survey	+	+	+	+	+	+

Table 17 Overview of activities by Zone

No.	Program	Objectives	Activities	Targets
1	Community Health in Resettlement Areas	To improve delivery of public health services from the existing health structures to local communities Capacity building program for VHVs and peer support To create demand for the improved sanitation infrastructure that will be supplied and improve hygiene for better health outcomes. To improve the nutritional status of resettlers, raising awareness of essential elements of hygiene, good nutrition, promotion of breastfeeding and identification of at risk households To monitor and adapt programmes as required meeting emerging health needs of communities in project affected areas including self-rating of health status	Consultations with Provincial and district health teams to identify other stakeholders in health services in project areas. (NGOs, INGOs etc.) Formulate an MoU (Memorandum of Understanding) with each province to clarify expectations, roles and responsibilities during project implementation Health checks to identify relevant issues for resettlement planning (disabilities / mental health issues / communicable disease) 3 months prior to resettlement and 3 months post resettlement Build, equip and provide technical support to a new health centre in resettlement area serving resettlers and hosts Investigate potentials for cross-subsidising CBHI/HEFs for resettlers during a transitional period and longer for vulnerable households. VDC and health team to jointly lead 'Healthy Model Village' attainment including CLTS and SLTS. These activities should begin prior to resettlement. Nutrition Programs to be integrated into	100% of VHVs in Resettlement and Host areas have received training MoU in place by end of 2016 for Bolikhamxay All resettlers to have undergone a health check 3 months prior to resettlement New Health Centre in place and operational by mid- 2017 Review of status of Health Equity Funds to be completed before the end of 2017 100% of resettlers have opportunity to participate in WASH activities Reported toilet use in resettlement villages reaches 100%
				All resettlers to have

No.	Program	Objectives	Activities	Targets
			WASH activities (Program 4) including the identify at-risk and vulnerable households and seek to provide targeted support Complement Mother-and-Child Health Programs using integrated community outreach, parasite treatments, bed net provision and monitoring of the nutritional status of women of reproductive age and children under 5 where required Develop monitoring framework, including self-rating of health and feedback systems to be able to respond to seasonal / unforeseen project impacts.	access to insecticide treated bed nets and health education regarding their use and maintenance Monitoring system to be in place by end of 2016 - to include self-ratings of health status.
2	Community Health - project impact zone	To minimize negative health effects due to or related to related project activities To facilitate access to GOL health services (avoiding duplication) including community mobilisation prior to GOL vaccinations programs, To improve delivery of public health services from the existing health structures to local communities Through a capacity building program for VHVs and peer support (Program 3). To monitor and adapt programmes as required meeting emerging health needs of communities in project affected areas	Consultations with Provincial and district health teams to identify other stakeholders in health services in project areas. (NGOs, INGOs etc.) Formulate an MOU (Memorandum of Understanding) with each province to clarify expectations, roles and responsibilities during project implementation Identify appropriate complementary measures for Mother-and-Child Health Programs using integrated community outreach model including parasite treatments, bed net provision and monitoring of the nutritional status of women of reproductive age and	100% of VHVs in Resettlement and Host areas have received training linked to potential project impacts. MoU in place by end of 2016 for Bolikhamxay and Xaysomboun Monitoring system to be in place by end of 2016 - to include self-

No.	Program	Objectives	Activities	Targets
			children under 5 Develop monitoring framework, including self-ratings of health and feedback systems to be able to respond to seasonal / unforeseen project impacts	ratings of health status as part of the Socio-Economic survey.
3	Capacity Building for GOL staff in project area	Building capacity of GOL health staff to deliver CLTS, SLTS and related programs utilising participatory approaches. Assisting authorities in achieving 'Healthy Model Village' and open defecation free status for resettlement and host villages. Improving management of childhood illness by supporting training of the IMCI tool using MoH trainers from the Mother and Child Hospital in Vientiane. Improved management of clinical waste including sharps with a training program and related equipment. Liaise with CBHI providers to increase awareness in the community, increase enrolment rates and subsidise where appropriate.	Technical capacity building of the local population including Village Health Volunteers (VHV) and the district level health staff. Community mobilisation efforts to be supported by NNP1 linked to integrated outreach model for vaccinations, growth monitoring for children and checks for pregnant and post-partum women. GOL health staff will be included in training plans to deliver CLTS programs and in community led nutrition activities. The Project will work together with local organizations that have experience in the field of public health and capacity building as relevant Training in MOH protocols will include IMCI (Integrated Management of Childhood illness) which is the MOH procedure for standardising care for commonly seen illnesses in children under 5.	Attainment of 'Healthy Model Village status' 100% of VHVs from project affected villages to have received training on improving uptake in vaccination offered by GoL IMCI protocol in place and utilised in all health centres in project areas Four staff from Bolikhan hospital to have received training course on sexual and reproductive health
			Health staff will be identified within district hospitals to receive specialist	reproductive nearth

No.	Program	Objectives	Activities	Targets
			training to improve sexual and reproductive health services. This will include proper diagnostic services and be linked to the management plans for camp followers and construction workers.	
			Training to develop proper clinical waste procedures including sharps disposal	
			Health staff will be involved and trained in data collection techniques to assist with health checks and health surveys as part of the monitoring obligations.	
4	Integrated WASH and Nutrition	To provide safe, adequate water and sanitation facilities to the communities identified (Zones 2UR, 2LR, 3 and 5)	Develop infrastructure for drinking water and sanitation within WSP (Water Safety Planning) framework	Water Safety Plans in place for all new and upgraded water
	programme	To minimize environmental threats to drinking water using water safety planning techniques	CLTS / SLTS programme run jointly with Nam Sa'at and local health staff.	supply systems (total 8 systems)
		At risk households will be closely monitored and supported through the behaviour change process with individual household development plans	Extend parasite treatment programmes to supplement GOL provision From baseline nutrition data identify	Reported toilet use improved to 90%(will
		To increase knowledge related to nutritional content of food and its impact on health	households at risk and increase monitoring and education to those	be measured as part of CLTS program)
		To transfer knowledge of weaning practices to women with young children in a culturally appropriate manner	households as a priority Cooking classes for women will be held to integrate knowledge of nutrition and hygiene, linked to agricultural extension programs. Appropriate foods for weaning will be a focus of the classes	All at risk HHs identified and intensively monitored All women in

No.	Program	Objectives	Activities	Targets
			Monitoring of anaemia prevalence in women of reproductive age. (Growth monitoring to be done monthly by village health staff and peer support workers in at risk households) A full breakdown of this program can be found in Annex C.	resettlement areas to be offered opportunities to improve their knowledge on nutrition and feeding practices Prevalence of anaemia to remain less than 30%

Table 18 PHAP Activities and Targets

4.7 Roles and Responsibilities for the Public Health Action Plan

- 185. 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 is responsible for these activities.
- 186. Training for the Village Health Volunteers and the District and Provincial Health personnel will continue to be carried out by supporting existing training opportunities within the MoH such as IMCI (Integrated Management of Childhood Illness and CLTS (Community Led Total Sanitation).

4.8 Infrastructure development

187. The infrastructure development plans can be found in detail within the REDPs. Related to the PHAP, water supply installation will be accompanied by relevant community development activities. Health centre infrastructure is also planned for the new resettlement area.

Zone 2UR	To include a budget for renovation of a health centre (Piengta) to start in Q3 of 2016 and an upgrade of village water supplies, which is					
	currently ongoing					
	Health centre and village water supplies to serve the new resettlement					
Zone 2LR, 3 and 5	area. Construction of new water supply systems for Hat Gniun and					
	Thahuea have been completed in 2015.					
	Village water supply improvements in those villages not yet					
Zone 4	connected to piped water supply. Survey is currently ongoing on how					
Zone 4	to best expand the town water supply system to cover the					
	downstream communities.					

Table 19 PHAP linked Infrastructure Plans

- 188. The health centre for Houay Soup will be a type 'B' health centre serving the resettlers and hosts in Hat Gniun and Thahuea. The final design and equipment list has now been approved by the provincial authorities and will be supplied with equipment and capacity building measures as outlined in program 3 of the community health program. The plans and drawings can be found in Annex B
- 189. A temporary outreach health service is being implemented for Hatsaykham until the full service health centre is completed with the second phase of resettlement from zone 2LR.

4.9 Potential medical emergency situations

190. The risk of potential medical emergency situations such as an outbreak of an epidemic (malaria, dengue, hepatitis, cholera, or any other water borne disease) is low. There have not been any

recorded near past outbreaks (covering the past 5 years) in the project zones. In case of an outbreak of an epidemic, the project will work closely together with the Health authorities to assist them with their response where possible. The Ministry of Health has infrastructure in place to response to outbreak of an epidemic and can call on contacts with International organizations, such as the WHO, UNICEF and US Embassy, who have responded in the past to support the MoH with epidemics, such as taking preventive measures designed to prevent and outbreak of the avian flu in the Asian region in the early 2000s.

191. After appropriate modification to become suitable for community level implementation, the NNP1PC Emergency Preparedness and Response activities relating to medical emergencies can be used for training the community for such scenarios.

4.10 Implementation Schedules

192. Yearly implementation plans are produced based on the overarching PHAP plans

Activity	C	onstruc	tion Ph	ase (yea	r)	Operation Phase (year)					
Activity	1	2	3	4	5	1	2	3	4-8	>8	
Community Health programs - Resettlement	+	+	+	+	+	+	+	+			
Community Health programs - Wider project Area		+	+	+	+	+	+	+			
Capacity building of Health Staff		+	+	+	+	+	+				
Integrated WASH and Nutrition program	+	+	+	+	+	+					

Table 20 Program implementation overview

Community Health Description	F		Constru	ction Pha	se (year)			Operati	ion Pha	se (year)	
Community Health Programs - Resettlement	Frequency	1	2	3	4	5	1	2	3	4-8	>8
Carry out a health survey and community consultations to refine planning	Completed	+				+				+	
Consultations with Provincial and district health teams to identify other stakeholders in health services in project areas. (NGOs, INGOs etc.)	Yearly	+	+	+	+	+	+	+			
Formulate an MoU (Memorandum of Understanding) with each province to clarify expectations, roles and responsibilities during project implementation	Every 3 years			+			+			+	
Health checks- 3 months prior to resettlement and 3 months post resettlement (Zone 3)	Twice per village			+							
Health checks as above (Zone 2LR + 2UR)	Twice per village				+						
Build, equip and provide technical support to a new health centre in resettlement area serving resettlers and hosts	As required			+	+	+	+				
Investigate potentials for cross- subsidising CBHI/HEFs for resettlers during a transitional period and longer for vulnerable households.	Yearly				+	+					
VDC and health team to jointly lead 'Healthy Model Village' activities including CLTS and SLTS. These activities should begin prior to resettlement.	Quarterly		+	+	+	+	+	+			

Community Health Duoguams Desettlement	Engaronar		Construc	ction Pha	se (year)		Operation Phase (year)				
Community Health Programs - Resettlement	rrequency	1	2	3	4	5	1	2	3	4-8	>8
Consultations with Provincial and district											
health teams to identify other	V = = #1==	+		+	+	+					
stakeholders in health services in project	Yearly	т	Т		Т	Т	-				
areas. (NGOs, INGOs etc.)											
Complement Mother-and-Child Health	Λ ~										
Programs using integrated community	As required			+	+	+	+	+	+		
outreach model	required										
Develop monitoring framework,											
including self-rating of health and	Ongoing			+	1	+					
feedback systems to be able to respond to	Ongoing										
seasonal / unforeseen project impacts											

Table 21 Community Health in Resettlement.

Community Health Programs - Project	E		Construc	ction Pha	se (year)		Operation Phase (year)				
Impact Zone	Frequency	1	2	3	4	5	1	2	3	4-8	>8
Carry out a baseline survey and											
community consultations to refine	Completed	+				+				+	
planning											
Consultations with Provincial and district											
health teams to identify other	Yearly	+		+	+	+	+				
stakeholders in health services in project	Tearry	т	Т	Т.	т	Т.	т	Т			
areas. (NGOs, INGOs etc.)											
Formulate an MoU (Memorandum of											
Understanding) with each province to	E 2										
clarify expectations, roles and	Every 3			+			+			+	
responsibilities during project	years										
implementation											
Complement Mother-and-Child Health		·									
Programs using integrated community	Quarterly		+	+	+	+	+	+			
outreach model											

Community Health Programs - Project	Enganomary	Construction Phase (year) Operation Phase (year)									
Impact Zone	Frequency	1	2	3	4	5	1	2	3	4-8	>8
Develop monitoring framework, including self-ratings of health and feedback systems to be able to respond to seasonal / unforeseen project impacts	As required			+	+	+	+	+	+		

Table 22 Community Health - Project Impact Zone

Canadity Duilding of COL Hoalth Staff	Енодионах		Construc	ction Pha	se (year)		Operation Phase (year)				
Capacity Building of GOL Health Staff	Frequency	1	2	3	4	5	1	2	3	4-8	>8
Technical capacity building of the local population including Village Health Volunteers (VHV) and the district level health staff.	Yearly	+	+	+	+	+	+	+	+	+	
Community mobilisation efforts to be supported by NNP1 linked to integrated outreach model for vaccinations, growth monitoring for children and checks for pregnant and post-partum women.	Ongoing			+	+	+	+	+	+	+	
GOL health staff will be included in training plans to deliver CLTS programs and in community led nutrition activities.	Ongoing		+	+	+	+	+	+			
The Project will work together with local organizations that have experience in the field of public health and capacity building as relevant	Ongoing			+	+	+	+	+	+		
Training in MoH protocols	Ongoing			+	+	+	+	+	+		
Support to develop proper clinical waste procedures including sharps disposal	Every year		+	+	+	+	+	+	+		

Table 23 Capacity Building for GOL Staff - Project Impact Zone

Late agree of MACII and Marketing Dungaran	E		Construc	ction Pha	se (year)			Operation Phase (year)				
Integrated WASH and Nutrition Program	Frequency	1	2	3	4	5	1	2	3	4-8	>8	
Develop infrastructure for drinking water	With new			+	+	+	+	+	+			
and sanitation within WSP (Water Safety	water	+								+		
Planning) framework	supplies											
CLTS / SLTS programme run jointly with	Monthly			+	+	+	+			+		
Nam Sa'at and local health staff.	Monthly									т —		
Extend parasite treatment programmes to	Yearly			+	+	+	+					
supplement GOL provision	rearry											
From baseline nutrition data identify												
households at risk and increase	Yearly				+	+						
monitoring and education to those	Tearry				Т	Т						
households as a priority												
Cooking classes for women will be held to	Monthly			+	+	+	+	+	+			
integrate knowledge of nutrition and	Monthly for 3/12											
hygiene, in 5 villages	101 5/ 12											
Monitoring of anaemia prevalence in												
women of reproductive age.	Ongoing			+	+	+	+	+	+			

Table 24 Integrated WASH and Nutrition

4.11 Evaluation and Monitoring of the PHAP

- 193. The Project applies an adaptive management approach. Adaptive management is an explicit and analytical process for adjusting management decisions to better achieve management objectives. It is a learning tool which recognizes that knowledge about natural resource systems is uncertain, that not every scenario can be foreseen, and that people change their minds during project implementation. Therefore, some management decisions are best been taken in a way that allows to reduce the risk arising from that uncertainty. Trials and iterative adaptations of plans based on monitoring and lessons-learned.
- 194. Implementation of the PHAP is one of the situations where adaptive management can be used due to the uncertainties connected to overall social developments as well as changing preferences of individual households. The Project establishes a knowledge management system, based on modern information technologies, which allows iterative adaption of plans based on changed circumstances and success of previous implementation steps. To remain transparent, strategic changes will be implemented in quarterly reports and regularly updated planning documents; provided to the involved stakeholders. Survey results will also be updated with different frequencies. The key is thereby constant monitoring internally and frequent monitoring externally, providing the necessary feedback and evaluation of previous steps and tasks ahead.
- 195. The PHAP covers communities over a large area in 2 provinces: Xaysomboun and Bolikhamxay and consists of many programs. In order to implement all of those successfully, an evaluation and monitoring system is being designed. This will involve the provincial and district authorities in monitoring and follow up

4.12 Monitoring and Evaluation

- 196. Monitoring and evaluation can be broadly categorized as 2 types of processes: an internal monitoring system, and an external monitoring system.
- 197. Several programs of the PHAP will be started up with support from the company but then to be operated by 3rd parties after a training and hand over period. 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 3rd parties of programs started with support of the company and sustainably operated afterwards by 3rd parties.

4.13 Internal monitoring system

- 198. Monitoring is being conducted by a combination of the health team, the CLTS consultants and the monitoring section within the Social Management Office. Internal monitoring by the health team will focus on the activities implemented as part of this plan. The health team, the CLTS team and the intern monitoring team will also evaluate the impact of these activities on health behaviours, and on health outcomes through the LTS monitoring program, the Biennial Socio Economic Survey, and the Mid Term Health Survey.
- 199. 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.
- 200. 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 is daily, weekly, quarterly or yearly depending on the urgency of those activities and the need for close monitoring.
- 201. 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 are regularly prepared and are submitted to ADB.
- 202. The baseline survey collected data that is nationally comparable and is methodologically sound to allow for statistical analysis over time.
- 203. The monitoring activity has three distinct streams:
 - i. **Baseline and intermittent monitoring** The sampling for this will be census level in Zones 2UR, 2LR and 3 and a randomised sample in all other villages in the project area (This included control villages but as they are not comparable, comparisons will be made over time.)
 - ii. **Health Checks -** Resettlers and hosts will be offered annual health checks following resettlement and anthropometric data will be collected during this process. This will again be census level in zones 2UR, 2LR and 3. This does not mean that anthropometric data will only be gathered once a year as it is appropriate to use this data as a diagnostic tool to monitor nutritional status and so this can be repeated at pre and post resettlement health checks. That data can then be used to more closely monitor at risk households and ensure women with anaemia are identified and offered treatment until the end of transition period of 3 years unless significant health issues are identified which can be attributed to the project
 - iii. **Outcome Monitoring** In order to be able to closely monitor health status of villagers and the impact of the project specific activities, activity plans will have outcomes that can be monitored. This will include results from the pre-resettlement

- health checks such as number of people with disabilities that required intervention. This data is not suitable for statistical analysis.
- iv. Consultations will be regularly held at a village, district and provincial level to continue to develop detailed health plans on an annual basis. There will be ongoing monitoring by relevant MoH departments as agreed during the implementation phase.
- v. Health data such as contraceptive prevalence, anaemia prevalence and growth monitoring of children under 5 has been gathered by a joint district health and project team. This mirrors the socio-economic survey methodology. Several health related parameters collected during this survey are reported in the Table 141 to Table 146. Other health related indicators will be included in the socio-economic survey data collection tool which will also be administered be every two years. These results will be publicly available.

4.14 External monitoring system

- 204. The external monitoring is being conducted by experts who are highly experienced and are not involved directly in any work of the Project. These experts constitute the IAP, IMA, and LTA as outlined above.
- 205. 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.
- 206. 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).
- 207. While external monitoring from LTA, IAP and IMA will be conducted on a regular basis for overseeing the implementation of the PHAP / Community Health and Safety measures, NNP1PC will also monitor review reports from qualified and experienced experts on the safety of dam's structural elements during the project design, construction and

commissioning phase to check for any malfunction / failure which may threaten the safety of the surrounding communities. The Technical Department is in charge of this and will notify the ESD in case of any noteworthy issues arising Clear communication channels are established for this, one of them being the weekly DMD meeting, organized with all DMDs. For urgent issues, the company has an Emergency Preparedness and Response Plan.

CHAPTER 5 - Labour Management Plan

5.1 Introduction⁵

- 208. Due to the requirement of large numbers or labourers and the associated influx of labour, careful adherence is required to policies and statutory requirements governing labour. 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;
 - Only engage contractors and other providers of goods and services:
 - who do not employ child labour or forced labour;
 - 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
 - whose subcontracts in relation to the Project contain provisions which are consistent with paragraphs (i) and (ii) above.
- 209. 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 document and the reader is provided with an overview of actions taken in order to provide a good, safe and fair working environment.
- 210. Table 25 contains an overview of the plans described in this chapter.

Efective Date is August 2014. The Labour Management Plan is congruent to sections in the EMP and ESMMP-CP.

Paragraph	Action Plan	Time Range	Purpose	Target population	Implementation arrangement
5.5.4	Develop and implement 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	Develop and implement NNP1PC Recruitment and Employment 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: - Provision of mandated wages and benefits as per the national labour laws. - Elimination of discrimination in employment and occupation. - Elimination of all forms of forced and compulsory labour.	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 on site by the tripartite monitoring committee, with the SMO functioning as the secretariat.

Paragraph	Action Plan	Time Range	Purpose	Target population	Implementation arrangement
			 Effective abolition of child labour. Freedom of association and effective recognition of the right to collective bargaining. 		
5.5.7	Develop and implement Recruitment and Employment Policy for Local Labour	December 2013-2023	Encourage local employment of PAPs by Contractors and Sub-contractors.	People living in and near the project areas.	Contractor, with monitoring tripartite monitoring committee, with the SMO functioning as the secretariat.
5.5.8	Skill and knowledge training program in parallel with conducting field implementation on various kind of livelihood options	December 2013-2023	Increase food security status of household levels and generate income activities.	PAP's living in the project area.	SMO, through the Livelihood team in coordination with DAFO, PAFO and other related GOL and NGO's agencies.
5.5.9.1	Enhance awareness on Community Management - 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	May 2014- 2023	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.	Communities near construction labour camps.	Contractor, with monitoring by the SMO.

Paragraph	Action Plan	Time Range	Purpose	Target population	Implementation arrangement
	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.	December 2013-2019	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 the MLSW in coordination with the 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.	GoL (LWU, MLSW and Ministry of Public Security Lao PDR) in coordination with the SMO.
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 tripartite monitoring committee, with the SMO functioning as the secretariat.
5.6.1	Implement and monitor health	May 2014-	To ensure preventive and curative health	Construction workers	Contractor, with

Paragraph	Action Plan	Time Range	Purpose	Target population	Implementation arrangement
	program for construction workers and their followers	2019	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.	and their followers.	monitoring by the tripartite monitoring committee, with the SMO functioning as the secretariat
5.6.2	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 tripartite monitoring committee, with the SMO functioning as the secretariat.
5.6.3	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 and Workers/employees.	Contractor, with monitoring by Health and Safety Department under the lead of TD.
5.6.4	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 Health and Safety department of TD.
5.6.5	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 the Health and Safety department of TD.
5.6.6	HIV/AIDS Awareness	December	To educate the workers on HIV/AIDS	Workers/employees.	Contractor, with

Paragraph	Action Plan	Time Range	Purpose	Target population	Implementation arrangement
	Program for Workers	2013-2018	and protection from the disease.		monitoring by tripartite monitoring committee, with the SMO functioning as the secretariat.
5.6.7	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 tripartite monitoring committee, with the SMO functioning as the secretariat.
5.6.8	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 tripartite monitoring committee, with the SMO functioning as the secretariat.

Table 25 Overview of Labour Management Plans

5.2 Objectives of the plan

- 211. The plan aims to provide the workers a safe and healthy working environment and avoid or reduce negative impacts on the community and maintain constructive relationships between contractors, workers' camps, camp followers and local communities . Specifically, the plan aims to:
 - Establish standards on worker welfare and living conditions at the camps that provide a healthy, safe and convenient environment.
 - Avoid or reduce negative impacts on the community and maintain constructive relationships between contractors, workers' camps, camp followers and local communities.

5.3 Scope

- 212. Target populations/beneficiaries are:
 - The day-labourers, workers and employees of the Project
 - The affected people who reside in or contiguous to the construction area

Objectives	Quantifiable targets	Activities to meet targets	Timeline	Monitoring frequency
Establish standards on worker welfare and living	Approved NNP1PC Recruitment and Employment policy available	 Draft NNP1PC Recruitment and Employment policy Approval of policy by BOD 	2014-2016 to establish and approve the policy.	Once
conditions at the camps that provide a healthy, safe and convenient environment	NNP1PC Labour Union established based on the approved NNP1PC company policy on Freedom of Association	 Draft NNP1PC Freedom of Association policy. Approval of policy by BOD Election of NNP1PC Labour Union Representative 	2014-2016 to establish and approve the policy. NNP1PC Labour Union Representative available until End of Concession period	Annually by LTA
	Approved policy on contractors and other providers of goods and services regarding labour standards available	 Draft NNP1PC Procurement policy Approval of policy by BOD 	2014-2016 to establish and approve the policy.	Annually
	Health program for Construction Workers and their Followers	Provide health education in workers campsEstablish first	Health education twice yearly during construction	

Objectives	Quantifiable targets	Activities to meet targets	Timeline	Monitoring frequency
	Implemented	aid/health posts in construction camps Operate first aid health posts in construction camps	phase Establishment of first aid health post at the time of construction of camp. Operation of first aid/health posts during the life of the camp	
	Camp facilities incorporate designs to minimize spread of Communicable Diseases among Workers	 Review relevant SS-ESMMP on camp establishment prior to approval. Annual inspection of facilities 	Establishment of appropriate facilities at the time of construction of camp.	Annually
	Emergency treatment and first aid for major accidents/injuries is available to all workers	Provide sufficient medical facilities and staff at the project centre, the campsite, and the worksites	For the duration of camp sites	Twice yearly
	Workers/Employee s use appropriate Personal Protective Equipment	Provide sufficient and proper PPE as required by the law and by safeguard policies for each worker at the workplace.	For the duration of the construction works	Monthly Joint Safety Patrol
	Annual Physical Examinations conducted for Workers	Enforce the contractors to provide medical check-ups for all workers and keep the records of their check-ups in systematic records throughout employment	For the duration of the construction works	Annually
	HIV/AIDS Awareness Program for Workers/Employee s implemented	Implement twice per year a HIV/AIDS Awareness training for Workers/Employees	During the life of the construction works	Twice per year
Avoid or reduce negative impacts on the	Contractor and subcontractors are encouraged to hire PAPs	Contractors are required to prepare recruitment plans with annual targets for hiring local labour	During the life of the construction works	Annual review of recruitment plans by TD and monthly

Objectives	Quantifiable targets	Activities to meet targets	Timeline	Monitoring frequency
community and maintain constructive relationships between contractors, workers' camps, camp	Skills and knowledge training programs for DP in local communities implemented	 Report desegregated numbers on labour hired by the project Conduct skill training program Establish producer groups 	Q3 2014 until 2023	reporting on number of labour hired Twice per year
followers and local communities	Establish and implement Community Management and Infrastructure Development program	 Establish safety regulations for communities living near construction areas. Disseminate said regulations Establish a camp followers economic zone away from existing community. 	During the life of the construction works	As required by evolving safety concerns
	Establish and implement Community Management Human Trafficking Impacts and Management program	 Establish program in close coordination with GOL Implement awareness training 2 times per year report any suspected cases of human trafficking 	2016 until COD	Twice per year
	Establish regulations to serve as principle for Conflict Resolution	 Establish code of conduct Ensure all workers sign code of conduct Support workers to establish Workers representatives / labour unions 	During the life of the construction works	Annually
	Establish and implement Campaign against Social misbehaviour	 Establish rules and regulations through Code of Conduct Ensure all workers sign code of conduct Encourage contractors to provide appropriate facilities for particular leisure interests at camp sites 	During the life of the construction works	Twice per year
	Establish and implement Prevention and Control of Sexually	Conduct regular awareness training to sex workers on sexually transmitted	During the life of the construction works	Annually

Objectives	Quantifiable targets	Activities to meet targets	Timeline	Monitoring frequency
	Transmitted diseases program	diseases. Establish access to condoms through revolving condom fund or free handout Conduct two times per year a STD awareness training in the construction camps		

Table 26 Scope of Labour management Plan

5.4 Compliance Framework

213. The main law governing labour in Laos is the Lao Labour Law, with several Articles highlighted below. Together with ADB's Social Protection Strategy (2001) and Core Labour Standards Handbook (2006) and the IFC Performance standard 2 (Labour and Working Conditions), the Lao Labour Law serves as the framework of the plan.

5.4.1 Labour Law

214. The Lao Labour Law (1994) and it's amendment dated 24 December 2013 has clear regulations about days and hours of work, protective measure for labour and working conditions, health, labour accidents, occupational diseases, child labour and forced labour. The relevant articles in the revised law, unofficially translated on 13 October 2014 are listed below and Table 27 indicates the corresponding sections of the LMP to ensure compliance to the Lao Labour Law. The English text of each relevant article can be found in Annex A.

Lao Labour	Principle	Compliance by NNP1PC
Law Article		
Article 5	Principles of labour affairs.	NNP1 HR Policy.LMP section 5.5.6 engagement of contractors.
Article 32	Creation of Employment Opportunities.	 LMP section 5.5.6 engagement of contractors. LMP section 5.5.7 Recruitment Policy for Local Labour. LMP section 5.5.8 Skill and knowledge training program for Land base skill training sessions.
Article 33	Elements of employment opportunity creation.	 LMP section 5.5.6 engagement of contractors. LMP section 5.5.7 Recruitment Policy for Local Labour. LMP section 5.5.8 Skill and knowledge training program for Land base skill training sessions.
Article 51	Hours of Work.	NNP1 HR Policy.LMP section 5.5.6 engagement of contractors.
Article 59	Unauthorized Use of Forced	LMP section 5.5.6 engagement of contractors.

	Labour.	
Article 60	Rights in Membership of Organizations and Appointment of Representative.	 NNP1 HR Policy. LMP section 5.5.11 Conflict resolution.
Article 63	Internal Regulations of Labour Units.	NNP1 HR Policy.LMP section 5.5.11 Conflict resolution.
Article 69	Rights and Obligations of Foreign Labour.	 LMP section 5.5.6 engagement of contractors. LMP section 5.5.9.1 Community Management.
Article 71	Social Insurance.	NNP1 HR Policy.LMP section 5.5.6 engagement of contractors.
Article 96	Gender Equality in the Workplace.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors.
Article 102	Unauthorized Use of Youth Employees.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors. LMP section Human Trafficking Impacts and Management.
Article 105	Minimum Wage.	NNP1 HR Policy.LMP section 5.5.6 engagement of contractors.
Article 108	Determination of Salary or Minimum Wage.	NNP1 HR Policy.LMP section 5.5.6 engagement of contractors.
Article 117	Labour Occupational Safety and Health.	 LMP section 5.6.4 Personal Protective Equipment for workers and or Employees. ESMMP-CP-Update, section on Hazardous Waste Management Program.
Article 119	Obligations of the Employer (in relation to Labour Occupational Safety and Health).	 LMP section 5.5.9.2 Infrastructure Development. LMP section 5.6.4 Personal Protective Equipment for workers and or Employees. LMP Section 5.6.1 Health program for construction workers and their followers. ESMMP-CP-Update, section on Solid Waste Management Program. ESMMP-CP-Update, section on Hazardous Waste Management Program. LMP section 5.6.2 Care and Surveillance of Communicable Diseases among Workers. LMP section 5.6.6 HIV/AIDS Awareness Program for Workers.
Article 120	Obligations of the Employee (in relation to Labour Occupational Safety and	 LMP section 5.6.4 Personal Protective Equipment for workers and or Employees. LMP Section 5.6.1 Health program for construction workers and their followers. LMP section 5.6.6 HIV/AIDS Awareness

Article 123 Article 124	Health). Officials and Responsible Unit on the Labour Health and Safety in a Labour Unit. Medical Staff in Labour	 Program for Workers. LMP section 5.6.7 Campaign against Social misbehaviour. LMP section 5.6.8 Prevention and Control of Sexually Transmitted diseases. LMP section 5.6.4 Personal Protective Equipment for workers and or Employees. ESMMP-CP-Update, section on Hazardous Waste Management Program. LMP Section 5.6.3 Emergency Treatment and First Aid for Major Accidents/Injuries. LMP section 5.6.4 Personal Protective
	Units.	 Equipment for workers and or Employees. LMP Section 5.6.3 Emergency Treatment and First Aid for Major Accidents/Injuries.
Article 125	Recording and Reporting of Workplace Accidents.	LMP section 5.5.6 engagement of contractors.
Article 126	Medical Examination of Employees.	LMP section 5.6.5 Annual Physical Examination for Workers.
Article 127	Labour Accidents and Occupational Diseases.	LMP section 5.6.1 Health program for construction workers and their followers.
Article 128	Treatment of the Victims of Labour Accidents and Occupational Diseases.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors.
Article 129	Salaries or Wages and Allowance for the Death of Employees Outside of Labour Accidents of Occupational Diseases.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors.
Article 147	Types of Labour Disputes.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors. LMP section 5.5.11 Conflict Resolution.
Article 148	Forms of Labour Dispute Resolution.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors. LMP section 5.5.11 Conflict Resolution.
Article 149	Compromise.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors. LMP section 5.5.11 Conflict Resolution.
Article 150	Administrative Resolutions.	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors. LMP section 5.5.11 Conflict Resolution.
Article 151	Resolution by the Committee for Labour Dispute	NNP1 HR Policy.LMP section 5.5.6 engagement of contractors.

	Resolution.	LMP section 5.5.11 Conflict Resolution.
Article 152	Court Rulings	 NNP1 HR Policy. LMP section 5.5.6 engagement of contractors. LMP section 5.5.11 Conflict Resolution.
Article 157	Rights and Duties of the Labour and Social Welfare Division of Each Province and City.	LMP section 5.5.11 Conflict Resolution.
Article 158	Rights and Duties of the Labour and Social Welfare Office of Each District and Municipality.	LMP section 5.5.11 Conflict Resolution.
Article 159	Rights and Duties of the Labour and Social Welfare Office of Each Village.	LMP section 5.5.11 Conflict Resolution.
Article 166	Employee Representatives.	LMP section 5.5.11 Conflict Resolution.
Article 167	Rights and Responsibilities of Employee Representatives.	LMP section 5.5.11 Conflict Resolution.
Article 179	Measures against violators.	LMP section 5.5.6 engagement of contractors.

Table 27 Compliance to the Lao Labour Law

5.4.2 Lao Regulations on human trafficking

- 215. Existing government laws of Lao PDR have covered the issue of human trafficking⁶ to 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.
- 216. 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

⁶Sources: http://www.humantrafficking.org/countries/lao_pdr/government_laws

work, the minimum working age being 15.

- 217. 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
- 218. Laos also prohibits human trafficking under its Penal Code Article 134 revised in 2006. The Labour Law (2013) prohibits forced labour (Article 59), prohibits employment of women in potentially injurious work and in night work, and prohibits strenuous work during and immediately after pregnancy. Furthermore, Lao PDR is a signatory 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.

5.4.3 ADB Social Protection Strategy and Core Labour Standards

- 219. 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
- 220. 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.

- 221. 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.
- 222. 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.
- 223. 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."

5.4.4 Labour force

- 224. In terms of local labour, considering the availability of labour in Lao PDR in general, according to 2005 census data⁷, 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

⁷ 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

- 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.
- 225. 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 estimates⁸, 20% of the Lao labour force is employed in occupations classed as industry or services, while 80% work in agriculture and related occupations.

5.4.5 **Potential Local Labour Force**

- 226. It is common for contractors to prefer their own pool of skilled and unskilled labour. However, to the extent possible, adult workers are being 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 28 presents the total number of people in the working age cohorts in 10 villages moderately to severely affected by the Project. The total working age population in 2014, which is all the people in the aged from 16 to 60 years came to 1,447 males and 1,398 females. Those in the prime working age for the Project those able to perform hard labour and/or those able to learn the skills for semi-skilled jobs aged 16 to 40 came to 1,072 males and 1,047 females.
- 227. 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 continue to recruit workers from these communities.

Community	Working Age Population (16 to 60)			Prime Working Age (16 to 40)		
	Male	Female	Total	Male	Female	Total
Zone 2 Upper Reservoir						
Pou	263	261	524	192	202	394
Piengta	126	111	237	99	81	180
Hatsamkhone	141	121	262	99	82	181
2UR Total	530	493	1,023	390	365	755
Zone 2 Lower Reservoir						

⁸ Source: Retrieved from the Internet web site Index Mundi on Dec 10, 2007 at http://www.indexmundi.com/laos/labor_force_by_occupation.html

Houaypamom	65	61	126	51	46	97
Sopphuane	112	107	219	88	78	166
Namyouak	254	256	510	189	198	387
Sopyouak	227	247	474	169	192	361
Zone2LR Total	658	671	1,329	497	514	1,011
Zone 3 Hatsaykham						
Hatsaykham	68	67	135	56	51	107
Z3 Total	68	67	135	56	51	107
Zone 5 Host Villages						
Hat Gniun	117	92	209	79	60	139
Thahuea	74	75	149	50	57	107
Z5 Total	191	167	358	129	117	246
TOTAL	1,447	1,398	2,845	1,072	1,047	2,119

Table 28 Summary of Labour Force of the Ten Communities of Zones 2UR, 2LR, 3 and 5 (BSES 2014 data)

5.5 Impacts

228. With the influx of about 2,500 workers into the Project construction sites, the residential areas for the workers are heavily populated. This could apply pressure on local resources and on local villagers but is being monitored.

5.5.1 Impacts on local resources

229. This large labour force has to be fed. Much of the food comes from outside the project area, but some can be produced or found in the area: people growing vegetables, raising animals, catching fish, and trading food items with one another. The Project has established a relevant unit with a senior national expert as team-leader, which engages in workers-camp followers-community relations. Thereby the Project utilizes the possibility of procuring food (vegetables, poultry, fish and meat, fruits) and other supplies available locally from the project affected people. For instance, the local communities of Hatsaykham, Hat Gniun and Thahuea, have established, with support of the Marketing officer from the SMO livelihoods program, vegetable trading groups, including women, to sell/supply their produce to the works camps directly, contributing to their incomes. The Project at the same time has informed the community about the risks of market dependencies in regard to the limited construction period.

5.5.2 Impacts on local culture

230. 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 a recurring 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.
- 231. 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 has integrated into both its PHAP and Labour Management Plan, measures to reduce such risks.
- 232. To date, the combined effort of the strict implementation of the workers Code of Conduct, availability of the required facilities in each camp, the strict enforcement of camp closure times and establishment of the Economic zone (see Chapter 5 SMAP) have successfully limited negative impacts on local culture and only a few incidents of local bar fights and occasional theft is reported.

5.5.3 Health issues

- 233. 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, 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) vector borne diseases (i.e., mosquito, amoeba) such as outbreak of malaria in the labour force.
- 234. To date, monitoring of these risks has shown that none has significantly materialized. However, the project stays vigilant against these risks and continuous it's monitoring program together with the District Health Office Information System accordingly.

5.6 Project Labour Strategy/Measures

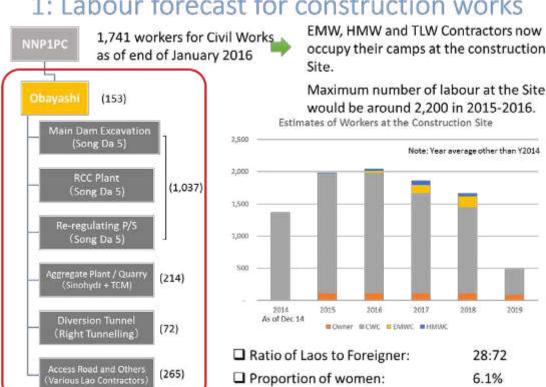
5.6.1 Labour forecast

235. The amount of labour required is estimated to be about 1,000 active workers/day in the first 2 years; up to 2,200 active workers/day in the third and fourth years; and 1,000 active workers/day for the remaining construction period⁹. An administration office of the EPC contractor and an owners' office are 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. Figure 23 shows the details of the labour forecast per

⁹JICA NAM NGIEP-I HEPP (Phase II),2002 page 10-15

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contractor per year from 2014-2019.



1: Labour forecast for construction works

Figure 5 Details of the labour forecast per contractor per year from 2014-2019 (Source: Technical Division of NNP1 2016)

Number of villagers

5.6.2 Sub-Programme 1: NNP1PC Recruitment and Employment policy.

- 236. The Human Resources Policy of NNP1PC firmly establishes the Company's commitment to ensuring equal opportunity, fair treatment and non-discrimination recruitment, hiring and compensation, and equal working conditions and terms of employment for its workers, including prohibiting any form of discrimination against women during hiring and providing equal pay for equal work for men and women.
- 237. The Policy will be drafted by the Human Resource department and send for approval to the Board of directors. To ensure compliance with the policy, the approved policy will be distributed to all staff.

5.6.3 Sub-Programme 2: NNP1PC company policy on Freedom of Association

The policy of the NNP1PC company does 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, as this is a clear requirement of the Lao

Labour Law (see section 5.2.1 Labour Law). The Policy will be drafted by the Human Resource department and send for approval to the Board of directors. To ensure compliance with the policy, the approved policy will be distributed to all staff. Following the approval, Lao staff will be invited to choose a labour representative. Regular meetings between the staff and their elected labour representatives will be organized at the 3 main office locations (Vientiane, Paksan and Operators Village / Site office). Issues resulting from these meetings will be brought to the Management of the NNP1PC for consideration and resolution.

239.

5.6.4 Sub-Programme 3: Policy on contractors and other providers of goods and services regarding labour standards

- 240. The project only engages contractors and other providers of goods and services:
 - iv. who comply with the mandated wages and benefits for workers as per the national labour laws;
 - v. who do not employ child labour or forced labour;
 - vi. 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
 - ii. whose subcontracts contain provisions which are consistent with paragraphs (i) and (ii) above.
- 241. NNP1PC Procurement Policy Clause 17 states this requirement as follows: "NNP1PC shall require all suppliers, contractors and contractors to meet its social, safety and environmental standards in supplying of goods and services including respect of human rights, refusal to use child labour, and protection of workers safety and the environment"
- 242. The standard NNP1PC contract format includes several important clauses clearly detailing the requirements to follow applicable standards, including Clause 7 *Insurance*, Clause 8 *Governing Law*, Clause 12 *Compliance with Laws*, Clause 13 *Permits* and Clause 23 *Environmental and Social Obligations*.
- 243. The project will continue to monitor application of contractual obligations to ensure compliance. For this, the Contract division will use the site inspections conducted by the representatives of Labour and Social welfare and Lao Labour Union, based in Hat Gniun. 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 providers of goods and services.

5.6.5 Sub-Programme 4: Recruitment Policy for Local Labour

- 244. 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 construction works of the Project. Further opportunities will arise for resettlers from Hatsaykham and the host communities during the development of the resettlement site and its infrastructure and the consequent operation period will provide opportunities for Resettlers from 2LR.
- 245. The vegetation clearance program in the reservoir is a good employment opportunity for villagers living in the 4 communities of 2LR. The contractor is strongly encouraged by the GOL, through a letter written to the contractor, to hire unskilled labour locally from within these 4 communities.
- 246. For any position available related to the Project either during the construction or operation period, the Project is open to employment of local people especially those who are in the affected area. However, these practices must abide to the Lao Labour Law (2013) and also the policy of the lender¹⁰.
- 247. 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.
- 248. The contractors are 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. While skilled, managerial, and supervisory staff is expected to come from outside the project area, a minimum portion will be Lao citizens.
- 249. The Representatives of the department of Labour and Social welfare and Lao Labour Union conduct quarterly inspections on the labourers in the construction camps. The police officers based in Hat Gniun inspect on quarterly basis if each Contractor has the required documents for their foreign workers.
- 250. 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

10Gender, Law, and Policy in ADB Operations: A Tool Kit (2006) and ADB's Core Labour Standards and its Handbook (2006)

and provided transportation allowances to cover the costs of travel from Vientiane to their homes of record by their Employer. 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 by their Employer. Managerial and supervisory staff will be provided by their Employer, with transportation or transportation allowances to cover the costs of their travel to their homes of record.

5.6.6 Sub-Programme 5: Skills and knowledge training program for Land based skills training sessions

- 251. A Livelihood Skills Training programme has been implemented which focuses on the skills needed for land based activities. Land based activities focused on increasing income earning opportunities through increase productivity of agriculture and small livestock raising. Produce from the activities are sold to the labour camps as food for labour or to the shops established in the villages or by Camp followers. Producer groups are established and special trainings provided on marketing, to facilitate the sale to the construction camps.
- 252. This program was introduced in late 2014, prior to the start of the major construction activities to maximize benefits to the local communities and is currently running successfully. Three producer groups, one in Hatsaykham, one in Hat Gniun and one in Thahuea have a combined membership of 50 villagers and are supplying vegetables, mushrooms and fish to the construction camps.

5.6.7 Sub-Program 6: Community Management and Infrastructure Development

5.6.7.1 Community Management

- 253. 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.
- 254. To create awareness amongst villagers of the construction works being implemented, groups of villagers are taken on a tour of the project site.

Date Visiting village Tot	otal Number of villagers
---------------------------	--------------------------

24 December 2015	Thahuea village	21
14 January 2016	Hat Gniun village	23
20 January 2016	Somseun village	24
22 January 2016	Hatsaykham children	25
30 January 2016	Hat Gniun Villagers and others	45
23 February 2016	PAPs from 2LR communities	43

Table 29 Village visits to construction site in the past 3 months (Source: Technical Division of NNP1 2016)





Thahuea Villagers

Hat Gniun Villagers





Somseun Villagers

PAPs from Zone 2LR

Figure 6 Visit to contraction site by villagers (Source: Technical Division of NNP1 2016).

5.6.7.2 Infrastructure Development

255. In order to ensure good welfare for the workers, NNP1PC is committed to ensure good infrastructure within the construction area and the workers' camps.

256. The basic infrastructure includes these components:

- Residential accommodation for workers comprising one bed and 0.5 m³ 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.
- 257. Part of the responsibilities of the Provincial Department of Labour and Social Welfare (Lao Labour Law, Article 157) is the inspection of living conditions of workers. The SMO, in close cooperation with the MLSW has established a monitoring system for regular inspection of the conditions is each construction camp. An inspection team comprising the GOL representative of the department of labour and social welfare, Lao Labour Union, NNP1PC Health and Safety and NNP1PC Senior Labour Officer conduct a joined site inspection. Inspections are made based on the form designed for such inspections by the Ministry of Labour and Social Welfare. A copy is kept by the GoL representative of the department of labour and social welfare and one by SMO. The results of these inspections are discussed with each individual contractor by the inspection team, together with a representative from TD. The outcome is reported in in the section on Labour Management of the Company's Social Monitoring Reports every quarter.

5.6.8 Sub-Program 7: Human Trafficking Impacts and Management

258. From field studies there are 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 amongst 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,\ and IEC materials. On-going Project-community relations will continue to raise awareness that the problem might occur, especially with the influx of many outsiders as labourers, camp followers, or those providing services to the workers.

- 259. Existing government laws of Lao PDR have covered the issue of human trafficking¹¹ to a certain degree, see Section 4.4.2 above.
- 260. 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.
 - Using the existing multimedia to educate the community on the problem, solutions and preventive measures.
 - After each health education session, allocate additional time for the participants to ask questions and express their concerns.
 - Inform the local residents that they need 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

5.6.9 **Sub-Program 8: Conflict Resolution**

- 261. A Workers Code of Conduct has been established for all workers and Employees working on the Project. The Code of Conduct is available in Lao, Thai, English, Vietnamese and Chinese and it is 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.
- 262. Vice-versa, the Project has established since 2014 several institutional measures to ensure workers' rights are followed by the Company, contractors, and subcontractors as instructed

¹¹Sources: http://www.humantrafficking.org/countries/lao_pdr/government_laws

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 has above all engaged in two institutional structures:

- i. The Project provides ongoing support the Lao Labour Union (LLU) to establish a Project branch in the construction area in Hat Gniun. One person is permanently based in the office located in the same building as the representative from the Lao Trade Federation and Police. 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 as per Article 148 of the Lao Labour Law on Dispute Resolution, initially 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 established the tripartite monitoring committee with representatives of the GOL, Contractors and NNP1PC to proactively engage in monitoring of contractors plans and activities and solve issues found. It, too, will cooperate with the LLU as outlined above.

5.7 Project Labour Strategy/Measures for Employees/Workers' Health

- 263. 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
- 264. Details of each of the plans are presented below.

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

- 265. **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 health issues involving the mingling of project staff, workers, and camp followers with the local population.
- 266. **Responsible Agency:** Contractor, with monitoring by the tripartite monitoring committee, with the SMO functioning as the secretariat.

Beneficiaries: Workers

267. Activities: Most of the health program activities in the construction areas are focused on the prevention of the increased risks of transmittable diseases such as malaria, Acute Respiratory Infection (ARI), diarrhoea, and sexual transmitted diseases. It is also important to continue to provide standard medical care when accidents, injuries, as well as other health problems occur. To be assured that the activities are successful there are health facilities supported by the construction companies, which is under the responsibility of the health and safety department of the Technical Division. 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 shared via training, 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. At least twice a year, workers will be given training on how to prevent malaria. The project health centre12, which is part of the Resettlement Infrastructure, will be provided with equipment for diagnostic tests and drugs for the treatment of malaria cases.

Standards

One employee responsible for health and safety per 100 employees or less

At least one employee responsible for health and safety per labour unit working in construction

¹² 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.

One health and safety unit per labour unit with more than 100 employees

Training of employees responsible for health and safety

One medical practitioner per labour unit located in suburbs or remote area with fifty or more employees

One medicine cabinet per labour unit with less than fifty employees

Detailed record and report to the Labour Administration Agency for accident requiring four or more days off work

Report to the Labour Administration Agency within three days for accident and occupational disease causing major injury or death

Once a year medical examination for all employees

Twice a year medical examination for all employees in dangerous areas or night work

Table 30 Standards on health aspects listed in the Lao Labour Law.

268. **Cost estimate** (USD): Monitoring costs will be included in the updated ESMMP-CP.

Work Plan:

Activity	Frequency	P	Construction Phase (year)		Operation Phase (year)				(year)			
3			1	2	3	4	5	1	2	3	4-8	>8
Provide health education to	Quarterly											
camp's workers, camp												
followers and local												
communities to prevention												
of the increased risks of		+	+	+	+	+	+					
accidents and injuries,		'	'	'	'	'	'					
occupational health hazard												
and transmittable diseases												
through the different												
activities outlined above												
Provide adequate medical	Once											
support through the					+							
establishment or upgrade of					Т							
health facilities												
Support health facilities by	Once											
providing initial equipment					+							
for the health centres												

Table 31 Work Plan Health Program Construction Workers and their Followers

5.7.2 Health Sub-Programme 2: Care and Surveillance of Communicable Diseases among Workers

- 269. This is included in the EMP, and will need to be monitored by tripartite monitoring committee, with the SMO functioning as the secretariat.
- 270. **Objectives:** To prevent the spread of communicable diseases

- 271. **Responsible Agency:** Contractor, with monitoring by tripartite monitoring committee, with the SMO functioning as the secretariat.
- 272. Beneficiaries: Workers and Camp Followers

Activities implemented and continue ongoing:

- Installed mosquito screens in windows and doors in all buildings in the camps or provided mosquito net to sleep underneath.
- Organized health education sessions to workers on how to prevent the spread of communicable diseases.
- Controlled mosquito and pests by:
 - Constructed effective storm water drainage system to avoid stagnant water
 - o Keeping storm water drains and borrow pit free of vegetation
 - Continue minimizing presence of containers full of water
 - o Continue removal of discarded items that could contain water
 - Continue covering waste water pits and drainage
 - o Provided (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 managed properly and maintained in a good condition through regular monitoring according to the required standards.
- At least 80% of staff at any time has received introduction courses, Posters are printed and posted, Leaflets printed and distributed
- Continue to check monthly number of medical checks compared to number of staff recruited
- Continue to check quarterly number of pre-employment medical checks and number of routine annual medical checks
- Continue to maintain records of the incidence of various diseases
- 273. **Cost estimate (USD):** Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated ESMMP-CP.

274. Work Plan:

A ctivity	Freque	D	Cons	Construction Phase (year)					Operation Phase (year)				
Activity	ncy	r	1	2	3	4	5	1	2	3	4-8	>8	
Install mosquito screen in all													
buildings in the camp or	0												
provide mosquito net to	Once	+											
sleep underneath													
Organize health education sessions to workers on how to prevent the spread of	Yearly		+	+	+	+	+						
communicable diseases.													
Control of mosquito and pests	Yearly		+	+	+	+	+						

A	Freque	Р	Construction Phase (year)					Operation Phase (year)					
Activity	ncy	r	1	2	3	4	5	1	2	3	4-8	>8	
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	Monthl y		+	+	+	+	+						
Check quarterly the number of pre-employment medical checks and number of routine annual medical checks	Quarte rly		+	+	+	+	+						
Records of disease incidence	Monthl y		+	+	+	+	+		71				

Table 32 Work Plan Care and Surveillance of Communicable Diseases among Workers

5.7.3 Health Sub-Programme 3: Emergency Treatment and First Aid for Major Accidents/Injuries

- 275. This activity is included in the EMP, and will require monitoring by the Health and Safety department of the Technical Division.
- 276. **Objectives:** To respond promptly and successfully in the event of an emergency or a major accident
- 277. **Responsible Agency:** Contractor, with monitoring by the Project's Health and Safety department of the Technical Division.

Beneficiaries: Workers

278. 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.
- 279. NNP1PC continues it's discussion with contractors on improving the medical facilities on site allowing for an adequate medical response in case of an accident. Fifty first aiders have been trained, first aid kits are available on site in each camp and in several camps there is a first aid room/clinic established. Besides the first aiders, two nurses, a paramedic and a doctor are on site (see Table 163). Medical services and ISOS are available for NNP1 and the Contractors since September 2015, including a helicopter landing pad at the owner's village. A temporary ambulance with driver is on 24-hour availability at the owner's village on site while procurement of a dedicated ambulance is proceeding (see Figure 25). In the first 3 months of 2016, there have been 39 consultations at the Clinic in the Owners village.

No.	Subcontractor	Nos. of Persons	First Aid Room/ Clinic	First Aid Kit	Ambulance	Doctor	Paramedic	Nurse	First Aiders
1	TCM	28	A	A	-	0	0	0	2
2	Right Tunneling	72	-	A	-	0	0	0	4
3	Sino-Hydro	186	A	A	-	1	0	0	7
4	Song Da 5	1,041	A	A	-	0	0	1	16
5	PAKC	0	-	A	-	0	0	0	0
6	PKCC	178	-	A	-	0	0	0	3
7	V&K	55	A	A	-	0	0	0	2
8	GoshuKohsan	10	-	A	-	0	0	0	0
0	Lao Security	7	-	A	-	0	0	0	0
10	PEC	0	-	A	-	0	0	0	0
11	OC Camp	151	A	A	-	0	0	1	10
12	NNP1 Camp	65	A	A	Temporary	0	1	0	6
Total		1,799				1	1	2	50

Table 33 Medical facilities and personnel on site per construction camp (Source: Technical Division of NNP1 2016).





Figure 7 Temporary ambulance with driver which is on 24-hour availability at the owner's village on site (Source: Technical Division of NNP1 2016).

280. Cost estimate (USD): Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated ESMMP-CP.

Work Plan:

A ativity	Енасионах	P	Cons	structi	ion Pł	nase (year)	Ope	eratio	n Ph	ase (y	ear)
Activity	Frequency	r	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	Updated as required with contractor rotation	+	+	+	+	+	+					
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 34 Work Plan Emergency Treatment and First Aid

5.7.4 Health Sub-Programme 4: Personal Protective Equipment for Workers/Employees

- 281. This activity is included in the EMP, with monitoring required by the Health and Safety department of the Technical Division.
- 282. **Objectives:** To safeguard workers/employees from dangers/hazards at the workplace

Location: at all time at workplace

Responsible Agency: Contractor, with monitoring by the Project's Health and Safety department of the Technical Division.

Beneficiaries: Workers

283. Activities:

- Provide sufficient and proper PPE as required by the law and by safeguard policies for each worker at the workplace. Figure 26 provides information on the PPE to be worn on site.
- 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. The safety officers of NNP1 and the Contractor conduct joint inspection patrols every week.
- Monthly Joint Safety Patrol by senior management and safety officers of Owner, Contractor and Subcontractors held on the third Thursday of every month
- Monthly Health &Safety Committee Meeting by same participants of Monthly Joint Safety Patrol held on the fourth Thursday of every month
- Establish checkpoints at strategic locations of the construction site. Figure 29 provides a map with the locations of the checkpoints and Figure 29 provides a picture of one of these checkpoints.

Personal Protection Equipment to be Worn on Site

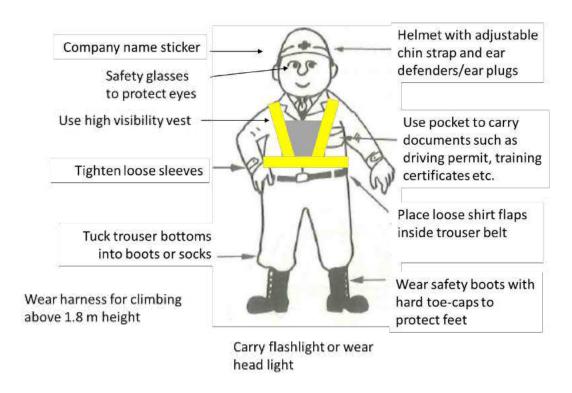


Figure 8. Use of PPE to be worn on site. (Source: Technical Division of NNP1 2016).

- 284. Regular refresher training is provided on safety, including the use of PPE and on specific use of equipment, based on the stages of the project construction. For example, Table 165 shows the safety trainings conducted in March 2016, when three items where specifically raised during the regular safety trainings:
 - i. Concrete pump safety
 - ii. Trip and fall
 - iii. Water quality

Figure 27 shows safety training session being conducted.

Date	Time	Location
1 March 2016	17:30	Right Tunneling Camp
3 March 2016	14:00	Re-regulation Dam
4 March 2016	18:00	RCC Worker Camp (Song Da 2)
5 March 2016	11:30	Aggregate Plant
7 March 2016	17:00	Dyke Construction
14 March 2016	14:00	Re-regulation Dam
15 March 2016	17:30	Right Tunneling Camp
18 March 2016	18:00	RCC Worker Camp (Song Da 2)
19 March 2016	11:30	Aggregate Plant
21 March 2016	17:00	Dyke Construction

Table 35 Safety trainings conducted in March 2016 (Source: Technical Division of NNP1 2016)





Figure 9 Safety training of labour (Source: Technical Division of NNP1 2016).

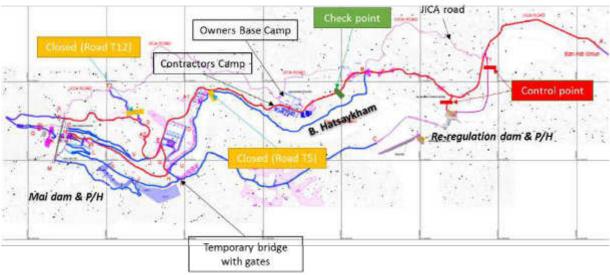


Figure 10 Location of Checkpoint for use of PPE. (Source: Technical Division of NNP1 2016).









Figure 11 Security checkpoints for the use of PPE (Source: Technical Division of NNP1 2016).

285. Cost estimate (USD): Costs will be included in the updated EMP (EIA Annex H).

Work Plan:

A -1::1	E	P	Con	struct	ion Pl	hase (year)	Operation Phase (year)						
Activity	Frequency	P	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	Monthly, or as needed		+	+	+	+	+							
Frequent Inspection to assure workers/employees comply with the rule. Joined (NNP1 and Contractor) weekly patrols are implemented by all safety officers with daily or periodic inspection as needed.	Weekly and as required		+	+	+	+	+							
Monthly Joint Safety Patrol by senior management and safety officers of Owner, Contractor and Subcontractors held on the third Thursday of every month	Monthly		+	+	+	+	+							
Monthly H&S Committee Meeting by same participants of Monthly Joint Safety Patrol	Monthly													
Establish checkpoints at strategic locations of the construction site.	Once		+											

Table 36 Work Plan Protective Equipment for Workers/Employees

5.7.5 Health Sub-Program 5: Annual Physical Examination for Workers

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

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

Responsible Agency: Contractor, with monitoring by the Project's Health and Safety department of the Technical Division. In cooperation with the SMO Health Team.

Beneficiaries: Workers

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

Cost estimate (USD): Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated ESMMP-CP.

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 37 Work Plan Annual Physical Examination for Workers/Employees

288. Annual health checks where conducted in 2015 and Medical interviews where implemented twice in 2015. No incidence of dangerous communicable diseases where identified. Common diseases identified where treaded through the required medical follow up. Figure 30 shows some of the medical forms used for each health check-up and medical interview.

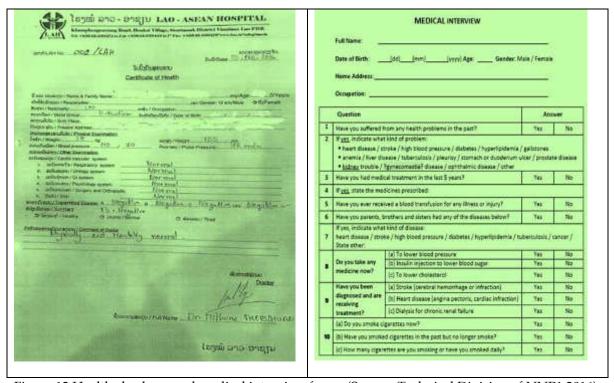


Figure 12 Health check-up and medical interview forms (Source: Technical Division of NNP1 2016).

5.7.6 Health Sub-Program 6: HIV/AIDS Awareness Program for

Workers/Employees

289. **Objectives:** To educate the workers on HIV/AIDS and protection from the disease

Location: At the camp

290. **Responsible Agency:** Contractor, with monitoring by tripartite monitoring committee, with the SMO functioning as the secretariat.

Beneficiaries: Workers

291. **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.

Cost estimate (USD): Monitoring costs will be included in the updated EMP (EIA Annex H) and figures presented in the updated ESMMP-CP.

Work Plan:

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

Table 38Work Plan HIV/AIDS Awareness Program for Workers/Employees

5.7.7 Health Sub-Programme 7: Campaign against Social misbehaviour

- 292. 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 are needed 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.

5.7.8 Health Sub-Program 8: Prevention and Control of Sexually Transmitted

diseases

- 293. 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.

5.8 Summary of Labour Management Programme

5.8.1 Roles and Responsibilities of Various Institutions

294. The project owner through the ESD is 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.

5.8.2 Costs and Budgeting

295. 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 50,000 USD for LMP-related costs (e.g. coordination with the Lao Labour Union). Staffing costs are included in the overall SMO

staffing budget (see REDP).

The skill development training budget is indicated in Table 39 below

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

Table 39 Skills Development Budget

Overall Implementation Schedule other than monitoring

- 296. 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.
- 297. This Labour Management Plan will be revised whenever major milestones have been reached and/or new information is available to integrate.

		Cor	ıstru	ction						
Work Plan	Pre-Construction	Pha	se (y	ear)			Opera	tion Pl	nase (ye	ar)
		1	2	3	4	5	1	2	3	
1) Health : Health Training & F	Education (Unit: Numl	oer of	trair	nings)					
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 Developm Number of trainings)	nent : Land base & No	n La	nd ba	se fo	r sk	ill tı	aining	session	s (Unit:	
Zone 2 UR		12	12	12						
Zone 2 LR		12	12	12						
Zone 3		12	12	12						
Zone 5		12	12	12						

Table 40 Overall Labour Management Plan Implementation Schedule other than monitoring

Unit: Number of Activities

CHAPTER 6 - Social Management Action Plan

- 298. At the interface between the project activities and communities in close proximity to construction areas there are particular risks. Amelioration of those risks falls under numerous teams and the range of these activities and location of the mitigation plans is set out in Table 41.
- 299. Monitoring of the activities will be the responsibility of SMO but implementation will involve GoL (particularly the RMU, relevant village and the District authorities) along with the company and contractors.

6.1 Objectives

300. The Social Management Action Plan was devised to avoid the risks and if unavoidable, reduce and mitigate the risks associated with construction and associated camp follower activities during the construction period. Issues such as traffic safety are covered in the EMMP and health and safety procedures linked to the relevant contractors activities.

6.2 Scope

- 301. The contractors will engage a construction work force of up to 1,000 workers for the first two years, rising to a peak of 2,200 workers for years three and four. 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 worker¹³. The Nam Ngum 3 project expected similar numbers of camp followers (14). Factors limiting the number of camp followers for Nam Ngiep include the geographic location of the construction camps as the location is near Paksan Town, which is now only 45 minutes' drive, the strict regulation on camp management and the facilities available in each camp. In June 2016, the total number of camp followers for Nam Ngiep 1 is 129 people in total, or 45 per 100 workers (See Table 42).
- 302. Communities near the construction site such as in 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 has the potential to change the village from a subsistence oriented economy to a more cash oriented economy, although Nonsomboun community is already comparatively

¹³ Source: NTPC Construction Phase Social Management Plan.

¹⁴ Source: Nam Ngum 3 REDP.

more integrated in the market economy. Camp followers established 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 social disruption, communicable disease and human trafficking.

- 303. Commercial sex work has now been identified at 6 venues near to the construction camps. There is also a risk of local young women becoming drawn to transactional sex occurring, which is the exchange of sex for material support. Both of these issues are inherently risky and the company will continue to support programs for harm reduction, and village authority strengthening until the end of the construction period. A review will be carried out at the end of the construction period to assess whether further support is required during the phase out of construction activities.
- 304. Target villages have been selected that the SMAP program will run in and are shown in the Table 41 below;

No.	Village	Zone	District	Province
1	Hat Gniun	Z5, Access road	Bolikhan	Bolikhamxay
2	Hatsaykham	Z3, Access road	Bolikhan	Bolikhamxay
3	Nampa	Z4, Z7 /230KV	Bolikhan	Bolikhamxay
4	Nonsomboun	Access road	Bolikhan	Bolikhamxay
5	Phiengdy	Z8 /Other	Bolikhan	Bolikhamxay
6	Somseun	Z4	Bolikhan	Bolikhamxay
7	Thahuea	Z5	Bolikhan	Bolikhamxay
8	Houaypamom	Z2LR	Hom	Xaysomboun
9	Namyouak	Z2LR	Hom	Xaysomboun

10	Sopphuane	Z2LR	Hom	Xaysomboun
11	Sopyouak	Z2LR	Hom	Xaysomboun

Table 41 Target Villages of the SMAP program

- 305. The programs will run until the end of the construction period and continue to receive close cooperation with law enforcement, local authorities as well as across NNP1 and all related contractors. It is not the role of NNP1 to replace law enforcement but transparent reporting and close monitoring are key activities.
- 306. There is no reliable baseline data within Lao PDR regarding the prevalence of social issues related to large scale construction projects so the development of indicators has been taken from early reports of data collected by the SMAP team and local authorities. This will be monitored over time for trends.
- 307. The following indicators are being collected by SMO and from the new police post at Bolikhan and will continue to be monitored and reported on.

113.07 1.04		45.09
1.04	2.88	
		0.35
-	4.03	-
-	53.33	-
N.A.	N.A.	N.A.
N.A.	N.A.	N.A.
19.71	14.41	6.99
0	0	0
_	0 0	

Table 42 Baseline Indicators for Social Management Action Plan

308. Successful management of these complex issues requires continues GOL support as well as activities listed as part of the Labour Management Plan such as code of conduct enforcement and environmental management. Table 43 below sets out mitigation measures linked to construction and their source documents.

Risk	Mitigation	Responsible Party and Budget	Mitigation measures have been implemented	Require adjustment/ refinement	Further support required
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	Mitigation measures have been implemented for existing camps	Continued implementation of mitigation measure for new contractors arriving on site to construct the Resettlers infrastructure in the HSRA	
Potential for a proliferation of random disorganised camp follower developments with unhealthy and unsanitary living conditions	see ESMMP-CP	Provincial Resettlement and Livelihood Restoration Committee and the RMU to advice. 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 Action Plan. Budget	Mitigation measures have been implemented for existing camps	Continued implementation of mitigation measure for new contractors arriving on site to construct the Resettlers infrastructure in the HSRA	

Risk	Mitigation	Responsible Party and Budget	Mitigation measures have been implemented	Require adjustment/ refinement	Further support required
		provided by NNP1			
Increases in risks to worker and local resident health	ESMMP-CP requires Main contractors to implement Health and Safety Plans for worker safety.	Main contracts budget to cover worker safety issues	Mitigation measures have been implemented for existing camps	Continued implementation of mitigation measure for new contractors arriving on site to construct the Resettlers infrastructure in the HSRA	
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.	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 Action Plan, supported by NNP1- SMO.	Mitigation measures are being implemented on an ongoing basis. The police post is constructed in Hat Gniun and 6 police officers (two female) plus a representative from Bolikhamxay Department of Labour and Social Welfare and a representative of the Provincial level of the Trade Union		Ongoing support for office operations and per diem to the GoL staff based in the police post in Hat Gniun, to enable ongoing patrolling by the relevant authorities and respond to issues as they arise, including the joined monthly inspections of labour camps.
A risk of human trafficking in the camp follower population	Governments Policy on Social Management. Monitoring by PMS Task Force Addition and upgrading	NNP1 budget for Social Management Action Plan includes support for the PMS Task Force and the	Mitigation measures are being implemented on an ongoing basis. The police post is constructed in Hat		Ongoing support for office operations and per diem to the GoL staff based in the police post in Hat Gniun, to enable

Risk	Mitigation	Responsible Party and Budget	Mitigation measures have been implemented	Require adjustment/ refinement	Further support required
	of women on district & provincial police forces. NNP1-SMO monitoring of work camps and camp followers. Awareness raising activities in schools and communities of risks of human trafficking.	short-term Technical Assistance on Trafficking	Gniun and 6 police officers (two female) plus a representative from Bolikhamxay Department of Labour and Social Welfare and a representative of the Provincial level of the Trade Union		ongoing patrolling by the relevant authorities and respond to issues as they arise, including the joined monthly inspections of labour camps.
Potential for discontent among local people if a significant percentage of workers are not given work	Direct Workforce Local Labour Recruitment Plan	Recruitment of local workers covered by HC. Support to be provided by District and local GoL authorities.	Mitigation measures are being implemented on an ongoing basis. The police post is constructed in Hat Gniun. A representative from Bolikhamxay Department of Labour and Social Welfare and a representative of the Provincial level of the Trade Union are permanently based there.		Ongoing support for office operations and per diem to the GoL staff based in the police post in Hat Gniun, to enable ongoing support for local recruitment.
Potential for local discontent due to inappropriate social behaviour of workers (drinking,	Workers' Code for Appropriate Behaviour will be explained to and signed by all employees of NNP1, with breach of contract as a	Implementation by Main contractors and related companies NNP1 Budget for PMS Task Force	Mitigation measures are being implemented on an ongoing basis. Workers are required to sign the Code of Conduct with their		Ongoing support for office operations and per diem to the GoL staff based in the police post in Hat Gniun

Risk	Mitigation	Responsible Party and Budget	Mitigation measures have been implemented	Require adjustment/ refinement	Further support required
gambling, seeking commercial sex workers, and harassing local women.)	consequence. Village monitoring by the PMS Task Force with reporting to SMO and RMU		contract. A police post is constructed in Hat Gniun and regular inspections are made by the police officers of the area.		
Lack of supply of potable water and water for domestic use for local population and population influx	Provisions for improved water supply and sanitation as part of the Social Management Plan and Mitigation Programme for Camp (ESMMP-CP) Water quality and monitoring programme under EMU/EMO.	Budget for water supply and sanitation measures for controlled camp follower sites. Main contractors to provide clean water supply in their camps	The newly built water supply system in Hat Gniun is expanded to include the Camp followers area. Ongoing regular joined inspections are conducted		Ongoing joined inspections of the area.
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	Speed bumps have been installed in each village area. Road safety campaigns conducted in the communities Vehicle quality inspections conducted jointly between TD and Contractors, to ensure equipment		Continue to implement annual traffic safety awareness program in the communities. Continue Vehicle quality inspections conducted jointly between TD and Contractors.

Risk	Mitigation	Responsible Party and Budget	Mitigation measures have been implemented	Require adjustment/ refinement	Further support required
		administration cost of each organization	meets operational requirements		
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 REDPs	Mitigation measures are being implemented on an ongoing basis. A representative from Bolikhamxay Department of Labour and Social Welfare and a representative of the Provincial level of the Trade Union are permanently based in Hat Gniun. The skills training program is ongoing. In the 3 communities close to the construction camp, supplier groups have established themselves to sell locally produced food items to the camps.		Ongoing support for office operations and per diem to the GoL staff based in the police post in Hat Gniun

Table 43 Camp Followers Risks and Mitigation Measures

- 312. The Company in cooperation with local authorities, integrating contractors/subcontractors, is regulating the establishment and operation of such facilities on village or government land by the camp followers or by villagers themselves. Staff have been integrated into the Resettlement Preparation Section with the team leader overseeing both programs in Hatsaykham.
- 313. 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 impact of a large construction site and camp followers on local villagers.
- 314. The following activity streams were initiated prior to construction and will continue to be managed under the resettlement preparation team with regular communications via SMO and at GOL coordination meetings.
- 315. Camp followers have established a range of businesses which have shifted over time, as can be seen in Table 44 below. Businesses are separated between those operated by Lao owners or by Vietnamese owners. There has been a shift in businesses, with a total of 17 shops closed since 2014, while others have opened. See Table 44 and Figure 31 below.

- (0)		9	September 20	14		July 2015		December 2015			May 2016		
Type of Shop	Baseline	Lao	Vietnamese	Total	Lao	Vietnamese	Total	Lao	Vietnamese	Total	Lao	Vietnamese	Total
Beauty salon		0	0	0	0	2	2	0	2	2	0	3	3
Dog grilled		0	0	0	0	2	2	0	2	2	0	1	1
Pure Drinking water factory		0	0	0	1	0	1	1	0	1	1	0	1
Furniture		0	0	0	1	0	1	1	0	1	1	0	1
Grocery shop	1	0	2	2	7	1	8	6	4	10	5	3	8
Goat Grilled		0	0	0	0	1	1	0	1	1	0	0	0
Karaoke/Beer shop		3	0	3	4	4	8	3	5	8	3	5	8
Noodle shop/Restaurant		7	0	7	3	3	6	4	2	6	2	2	4
Rental house		16	0	16	15	8	23	13	6	19	9	2	11
Rented room house		1	0	1	1	0	1	2	0	2	2	0	2
Resort	1	1	0	1	1	0	1	1	0	1	1	0	1
Restaurant	T	7	0	7	5	0	5	5	2	7	4	2	6
Snooker		0	1	1	0	1	. 1	0	1	1	0	1	1
Tea shop		0	0	0	0	2	2	0	1	1	0	2	2
Vegetable selling		0	0	0	1	1	2	1	1	2	0	0	0
Motorbike fixing		0	0	0	1	0	1	1	0	1	1	1	2
Duck grilled	I	0	0	0	0	0	0	0	0	0	0	1	1
Total	1	35	8	38	40	25	65	38	27	65	29	23	52

Table 44 Camp followers businesses in Hat Gniun (camp followers data 2016).

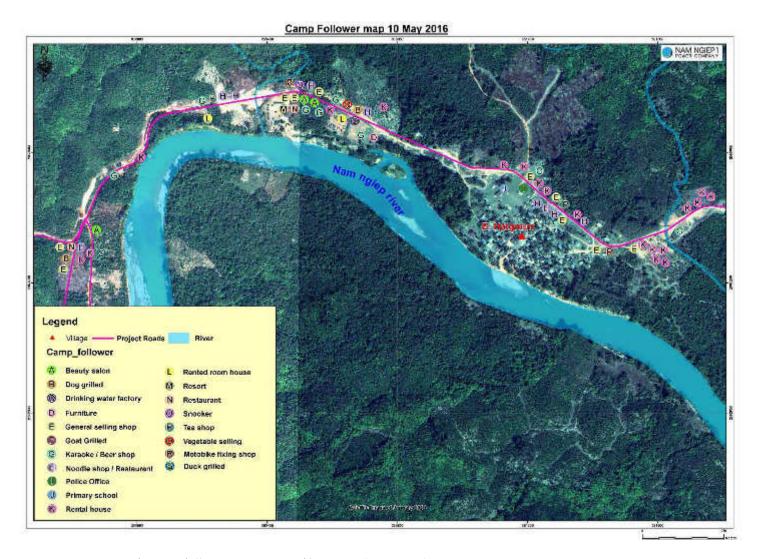


Figure 13. Location of Camp followers per type of business (May 2016)

6.3 **Programs**

- 316. Program 1 Support for Local Authorities and Leaders. The camp followers officers within the Resettlement Preparation and Labour Team at the construction site of NNP1PC will support GOL's regulation and enforcement following up on water quality issues, 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 GOL will, with the support of the project, control 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.
- 317. A police post has been set up in Hat Gniun village Zone 3 of Bolikhan to patrol Zone 3, 5 and NNP1 construction area. Efforts will be made to request female police officers. Laws relating to Road Safety, Traffic, Drug Control and the rights of women and children will be disseminated to Village Authorities and training held to increase awareness and improve responses that require legal resolution.
- 318. At a village level, training on women and child rights, law enforcement and involvement of Lao Women's Union in reporting incidents involving local women will be fed back through the monitoring activities to inform management and district level decision making. Clear procedures will be developed in the event of an incident of trafficking or any other issue of concern to the village authorities.
- 319. Program 2 NNP1 Staff and Contractors Awareness Program. This has already included the distribution of condoms along with training sessions for construction workers on the code of conduct, legal aspects and risks of unprotected sexual activity. Educational materials such as leaflets and posters will continue to be made available for communal areas within the construction camps.
- 320. All NNP1 Staff to be offered training on how to prevent the transmission of STDs, HIV/AIDS. And confidential, voluntary counselling and testing for HIV will be available free of charge.
- 321. Program 3 Community Awareness Program. As part of the Community awareness programs, the SMO will work with local GoL to develop effective mass media campaigns that will communicate in a way that is appealing to young people. Schools will be targeted with campaigns to bring appropriate educational materials into school with confidential voluntary counselling and testing for HIV on offer regularly in all target villages and schools
- 322. Youth at risk will be identified and as part of the youth program training on life skills including risks of alcohol and drug use. Raising awareness of human trafficking risks and adolescent sexual health information will be included in regular program activities.
- 323. Program 4 Harm Reduction for at risk groups. The gathering of data will be an important part of the strategy to reduce harm. In-reach into entertainment venues has required

building of trust but can be a useful tool to establish data such as the number of sex workers, the proportion of them who may be under age and the number of incidents of crime reported.

Program	Objectives	Activities	Targets
Local	Local authorities and	Set up of Police post in Hat Gniun,	100% of Village
Authority	leaders are empowered to	Bolikhan district to patrol zones 3	Authorities to
Support	maintain the social	and 5 and offer more responsive	have received
	integrity of the village	service in case of any criminal	training on law
		activity.	enforcement
			relating to the
		Monthly meeting (minuted) with	rights of women
		representatives of village	and children.
		(including villages in zone 5)	
		NNP1 and district authorities to	
		report progress and concerns	
		relating to village security / safety	
		during construction	
		Support village security measures	
		to support buffer zone between	
		construction area and village.	
		construction area and mager	
		Training and information	
		dissemination for village	
		authorities (zones 3 and 5) of	
		relevant laws	
		SMAP team follow up any cases	
		reported within the village (to	
		district / provincial level)	
NNP1 Staff	Construction activities are	Training for construction workers	Regular
and	monitored effectively to	on code of conduct and risk of	education for
Contractors	enable responsive,	unprotected sexual activity	construction
Awareness	adaptive management to		workers to have
Program	limit negative social	Training for all NNP1 staff on	education
	impacts	how to prevent the transmission of	regarding the
		STDs including HIV/AIDS	risks of
			unprotected
		Training for all NNP1 staff on	sexual activity.
		knowledge of legal and social	
		ramifications of human trafficking,	
		abuse of alcohol & drugs.	

Program	Objectives	Activities	Targets
Community	Villagers have the	Sexual Health Campaign for	Activities
Awareness	knowledge and skills to	Villages and Schools	carried out in
Program	increase their resilience to		100% of target
	negative social impacts	Life skills training for youth in each village	villages.
		Drug and alcohol - Risk awareness campaign	
		Workshops on risks of human	
		trafficking run by Lao Womens	
		Union	
Harm	At risk groups are able to	Peer Group meeting 3 months/	At risk groups
Reduction for at-risk	protect themselves	meeting / village	demonstrate increased
groups		Outreach visits to support and	knowledge
groups		monitor commercial sex workers	regarding the
		and the commercial sea were	benefits of
		Condom distribution program	condom use.
		IEC materials for display in offices,	
		construction workers	
		accommodation. (Prevention and treatment options)	
		neament options)	

Table 45Program activities and targets.

		Constru	ction Phas	se (year)			Operation Phase (year)			
	2014	2015	2016	2017	2018	2019	2020	2021	2022- 2026	>206
Support for Local Authorities										
Support the set up of village development committees including village police	+	+	+	+	+	+				
Set up police post in Hat Gniun			+							
Monthly meeting (minuted) with representatives of village (including villages in zone 5) NNP1 and district authorities to report progress and concerns relating to village security / safety during construction	+	+	+	+	+					
Support village security measures to support buffer zone between construction area and village.	+	+	+	+	+					
Training and information dissemination for village authorities (zones 3 and 5) of relevant laws	+	+	+	+	+					
SMAP team follow up any cases reported within the village (to district / provincial level)	+	+	+	+	+					
Study tour to other villages in Laos that have been affected by Dam construction	+	+	+	+	+					
NNP1 Staff and Contractors Awareness Program	ı									
Training for construction workers on code of conduct and risk of unprotected sexual activity	+	+	+	+	+					
Training for all NNP1 staff on how to prevent the transmission of STDs including HIV/AIDS	+	+	+	+	+					
Community Awareness Program										
Training for all NNP1 staff on knowledge of legal and social ramifications of human trafficking, abuse of alcohol & drugs.	+	+	+	+	+					

		Constru	ction Phas	e (year)		Operation Phase (year)				
	2014	2015	2016	2017	2018	2019	2020	2021	2022- 2026	>206
Training and information dissemination for contractors' representatives of relevant laws	+	+	+	+	+					
Road Safety Awareness campaign for Villagers	+	+	+	+	+					
Sexual Health Campaign for Villages and Schools	+	+	+	+	+					
Life skills training for youth in each village	+	+	+	+	+					
Drug and alcohol - Risk awareness campaign	+	+	+	+	+					
Harm Reduction for at risk groups										
Workshops on risks of human trafficking run by LWU and Ministry of Labour and Social Welfare.	+	+	+	+	+					
Outreach visits to support and monitor commercial sex workers	+	+	+	+	+					
Condom Distribution Program	+	+	+	+	+					
Produce and distribute relevant IEC materials for display in offices / workspaces	+	+	+	+	+					

Table 46 Implementation Schedule

CHAPTER 7 - Community Development Plan

Introduction

- 324. The community development plan focuses on the key cross-cutting issues of health, gender, cultural heritage and labour management which impact beyond the resettlement and host zones. The purpose of the community development plan is to help prepare villagers for the social impacts related to the project construction activities.
- 325. 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.
- 326. The plan consists of:
 - Gender Action Plan;
 - Programs for Youth and Children; and,
 - Cultural Awareness/Heritage Preservation Program.
- 327. 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 sub-plans, including budget and detailed implementation schedule, at least 60 days prior to the beginning of each calendar year.

7.1 Gender Action Plan

7.1.1 The Requirement for a plan

- 328. 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.
- 329. 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.15
- 330. 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-along women activities are the

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

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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.

- 331. Specific issues relating to the implementation of resettlement plans and significant project impacts are covered in the updated versions of the REDPs. One of the stated objectives of the REDPs is to "set out procedures and policies for ethnic groups and gender planning"
- 332. Baseline survey data and detailed implementation plans and indicators can be found within these plans. The community development plan update therefore contains details of cross cutting issues linked to NNP1, policies staff and the wider project area.

7.1.2 Constraints faced by women in the project area

- 333. 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.
- 334. 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.
- 335. 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.
- 336. 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.
- 337. 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.
- 338. 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.
- 339. 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.

- 340. 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.
- 341. 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.
- 342. 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.
- 343. 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.16 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.

¹⁶ GRID, "Lao PDR Gender Profile" 2005, p. 41

- 344. Education As also noted in the SIA and the SES baseline survey carried out in 2014, Zone 3 had the lowest level of completion of secondary school although the number of households in this village is small (35). 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.
- 345. 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.
- 346. 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.
- 347. 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.
- 348. Health Care As already noted in the health Impact Assessment, 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.

7.1.3 Objectives

349. There are a number of detailed implementation plans which now aim to meet the objectives of Gender equality. The objectives and relevant plans are contained in the Table 177 below.

Objective	Relevant plan ¹⁷	SDP Sub Program
Promote the realization of gender equity, basic	NNP1 Policies and all plans to reflect this	Gender
human rights and women rights according to the		Mainstreaming
laws of Lao PDR		Sub-Program

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¹⁷ As of 2016 Updates.

Objective	Relevant plan ¹⁷	SDP Sub Program
Promote women's roles in decision making and in	SDP - This training	Community
representing the community	will be carried out in	Empowerment
	every project zone.	Sub-Program
Gender-disaggregate all project-generated data		Gender
and information, to enable equity monitoring over	SDP	Mainstreaming
time		Sub-Program
Train Company staff on Gender sensitivity and		Gender
regard it as an essential qualification for	SDP	Mainstreaming
employment and promotion		Sub-Program
Actively engage women and girls' involvement in the community health programme	PHAP (In SDP)	-
Promote awareness on human trafficking and	SMAP as part of this	
HIV/AIDS	version of the SDP	-
Ensure gender equity in all compensation and		
mitigation measures, including concerning land	REDPs for	
tenure, cash compensation payments and joint	resettlement areas.	-
husband and wife names on bank accounts, tenure	resettiement areas.	
documents, etc.		
Promote education for girls as well as skills and	REDPs for	
capacity building for women	resettlement areas.	-
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,	REDPs for	
extension workers to consider women's	resettlement areas.	-
contribution to the agricultural economy, and to		
actively seek women's opinions and inputs on		
potential livelihood activities in the rural setting		
Link the infrastructure development in the project		
area and strategy to reducing the back-breaking	REDPs for	
tasks of women and girls, such as fetching water,	resettlement areas.	-
fodder, and firewood		

Table 47 Gender relevant plans

7.1.4 **Scope**

350. The target population or beneficiaries of the SDP Gender plan are complemented by the updated REDPs and include PAPs residing in the project area. The scope also includes training for NNP1 staff in gender sensitivity and therefore improve the mainstreaming of gender issues.

7.1.5 Sub-Program 1: Gender Mainstreaming

351. 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 company, through its detailed, zone specific resettlement plans (REDPs) and social mitigation efforts aims to;

- Improve project affected girls' and women's health
- improve gender equity in legal tenure of property and land
- reduce workloads of girls and women
- increase women's access to and control over resources
- increase women and girls' levels of education and literacy
- Gather, use to inform implementation and apply gender specific data
- Staff training and support will be required to ensure gender is mainstreamed into all NNP1 processes and policies.
- 352. The project will also develop capacity within its staffing group and government counter parts to be able to develop, modify and review plans to ensure gender sensitive programming.
- 353. 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.
- 354. Linked to labour management, codes of conduct and the SMAP, the Project will act against any illegal activities and exploitation of women by monitoring contractors and subcontractors as well as supporting public authorities.
- 355. The Project will also implement a training schedule for NNP1 staff.

Activities by Zone	Z 1	2 UR	2LR	Z 3	Z4	Z5	Plan
Sub Program 1 Gender Mainstr	eaming						
Education support for girls in vulnerable households		+	+	+		+	REDPs
Guide and planning support for parents on education of their children						+	
Promote equal opportunity school education for girls						+	
Infrastructure development to ease tedious tasks of women		+				+	REDPs
Act as a resource for NNP1 staff implementing activities	+	+	+	+	+	+	
Promote women's employment in the project							

Table 48 Gender activities by zone

7.1.6 **Sub-Program 2: Community Empowerment**

356. 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.

357. Work with the Lao Womens Union and the Advancement of Lao Women's District Office, a target has been set of workshops for 30 people at a time.

Activities by Zone	Z 1	2 UR	2LR	Z 3	Z4	Z 5	Plan
Sub Program 2 Community Em	powermei	nt					
Skills training for women in target zones		+	+	+		+	REDPs
Promote and monitor the participation of women at decision making level (target: every institution on community level involves women)	+	+	+	+	+	+	SDP
Training on gender roles to be carried out for all adults in the community in key project zones		+	+			+	
Awareness on joint spousal authorization and receipt		+	+				
Promote skills and entrepreneurship for women		+	+			+	REDPs
Promote women participation in activities of their villages		+	+			+	REDPs

Table 49 Community Empowerment activities by zone

7.1.7 Schedule of implementation

358. Table 50 contains the schedule of program activities.

Program Implementation Schedule	2014	2015	2016	2017	2018	2019	2020	2021
Education support for girls in vulnerable households	+	+	+	+	+	+	+	+
Guide and planning support for parents on education of their children	+	+	+	+	+	+	+	+
Promote equal opportunity school education for girls	+	+	+	+	+	+	+	+
Infrastructure development to ease tedious tasks of women		+						
Act as a resource for NNP1 staff implementing activities	+	+	+	+	+	+	+	+
Promote women's' employment in	+	+	+	+	+			

the project								
Carry out Gender Sensitivity training for NNP! Staff to improve planning and implementation	+	+	+	+				
Skills training for women in target zones	+	+	+	+	+	+	+	
Promote and monitor the participation of women at decision making level (target: every institution on community level involves women)	+	+	+	+	+	+	+	+
Training on gender roles to be carried out for all adults in the community in key project zones	+	+	+	+	+			
Awareness on joint spousal authorization and receipt	+	+	+	+				
Promote skills and entrepreneurship for women	+	+	+	+	+	+	+	+
Promote women participation in activities of their villages	+	+	+	+	+	+	+	+

Table 50 Gender Action Plan Implementation Schedule

7.1.8 Roles and Responsibilities

359. 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 Division of the Company 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 ii).

NGO Name Project Name		Activity Sectors covered in this District	District
	Reading Promotion Project	Education; Social Development	Hom Paksan Thathom Bolikhan
Agir pour les Femmes en Situation Precaire Action for Women in Distressing Circumstances (AFFSIP)	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 Paksan Thathom Bolikhan

NGO Name	Project Name	Activity Sectors covered in this District	District
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	Paksan 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)	,	Agriculture, Forestry & Fisheries; Data Collection & Analysis; Education; Human Resources Development	Bolikhan

Table 51 NGOs on Education who are Working in the Project Area

360. The SMO has sought out cooperation from and works with NGOs that have experience in the project area. Table 51 presents the NGOs that have worked on education in the districts and provinces where the Project is located, while Table 52 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.

NGO Name Project Name	Activity Sectors covered in this District	District
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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		Hom Paksan Bolikhan
Croix-Rouge Francaise (CRF)	Community Health 2008-2011	Community Development; Health Care; Human Resources Development	Hom
	Small Piped Water Systems (MIREP)	Community Development; Health Care; Human Resources Development; Income Generation & Economic Development	Paksan
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	Paksan
	Lao Youth Military and Police HIV/AIDS Reponse Project	Data Collection & Analysis; Education; Health Care; Human Resources Development; Social Development	Paksan
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	
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 52 NGOs on Health who are Working in the Project Area

7.2 Youth and Children Action Plan

- 361. 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.
- 362. Improvement of infrastructure related to education is contained within the relevant REDPs

7.2.1 Objectives

- 363. 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.
- 364. 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.
- 365. 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
- 366. 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.
- 367. 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.

- 368. 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.
- 369. 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.
- 370. A committee comprising representatives for PAPs, school headmaster, district education department and the company has been 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.
- 371. 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.

7.2.2 Overall Implementation Schedule

372. Implementation of programs require adaptive management, to respond adequately to developing situation on the ground. Therefore, the Company will submit an Annual Implementation Plan to ADB within the first month of each calendar year

Work Plan	Con	struction	Phase (y	ear)	Operation Phase (year)				
VVOIK I Iaii	2015	2016	2017	2018	2019	2020	2021	2022	
Schools Program (REDPs)	+	+	+	+	+	+	+	+	
Scholarship Program		+	+	+	+	+			

Table 53 Youth and Children Action Plan / Overall Implementation Schedule

7.3 Cultural Awareness/Heritage Preservation Action Plan

373. 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.

7.3.1 Objectives

- 374. Objectives of this program are:
 - to protect cultural heritage, both tangible and intangible against adverse project impacts.
 - The second objective is that replicable cultural heritage that will be affected will be replaced or compensated.
 - To promote and preserve historical and archaeological sites and as well as intangible cultural heritage for next generations, and to prevent their damage or despoliation.

7.3.2 **Scope**

- 375. 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 an inventory 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 the resettlement village.
 - Following these actions a detailed plan can be formulated which addresses the objects, sites and practices that need to be preserved and how this will be done as part of Sub program 1 described below.

7.3.3 Sub-Program 1: Programs to Promote Local History and Creation of a Village Museums

- 376. Should any archaeological or historic sites will be damaged in the project area. Cultural evidence useful for the study of human development and the study of the country's history would be lost and will therefore need to be identified in order to develop appropriate avoidance and/or mitigation strategies
- 377. An inventory of cultural assets will be developed which will include temples, religious sites, significant finds and results of community consultations identifying significant intangible cultural heritage.
- 378. During the original SDP development there was a report that villagers had found Neolithic remains in the area. A further survey was carried out in August 2014 by the Provincial Department of Information, Culture and Tourism which identified three rock shelters where veneration of Buddha statues had taken place. Annex E contains their report. This study identified that these areas do not contain Neolithic remains, since the shelters are not suitable for long term habitation.
- 379. This study also conducted a systematic inventory of 29 Buddha statues that were found in these rock shelters and relocated at the request of villagers to the temple in nearby Hat Gniun village and a review of the existing documentation and procedures of the

- management of artefacts. See Annex E, Appendix A for their details.
- 380. No further surveys and assessments will be conducted by professional archaeological consultants unless there are chance finds as the 3 sites at Thahuea have now been investigated.
- 381. The Project will support the development of a museum at the resettlement site, encompassing the history of people living in the area. This will also include media resources and plans are already under development.

7.3.4 Sub-Program 2: Protocols for Contractors in Case of Chance Discovery of Cultural Artefacts during Construction or Operation

Local Culture

- 382. Local culture is part of the overall consultations with residents of communities where construction or resettlement is involved. It is being emphasized that their social and cultural structures will remain intact and that assets such as schools, markets and other public facilities will be replaced according to the finalised inventory. No temple is impacted by the project. The REDP Update on Graves and Cemeteries, available on the Company and ADB website, describes the impacts on graves and cemeteries and how they will be compensated and relocated.
- 383. The community relations team of the NNP1 SMO are conducting 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.
- 384. Work has already begun 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.
- 385. Work is due to start prior to resettlement to capture a village profile of Hatsaykham with documented village traditions, any cultural artefacts identified by the villagers, photographs and documentation of ceremonies. This work will also produce a DVD and everyday households items that can be displayed in the village museum. A similar village profile will also be developed for the villages that will be resettled from Zone 2LR.

Historical sites

- 386. The ESMMP-CP¹⁸ Volume III has the site specific sub plan requirement on Physical Cultural Resources. It contains the following sections:
 - Avoid impacts on significant Physical Cultural Resources
 - Definition of Physical Cultural Resources

¹⁸ The ESMMP-CP is available on the Company's website.

- Training of construction workers
- Chance Finds Procedure

The ESMMP-CP Volume III contains the following Chance Find Procedure:

The following steps will be implemented in the event that previously unidentified artefacts are identified:

- 1) The contractor shall immediately cease operations on work sections where artefacts/archaeological objects are unearthed and immediately inform the Owner.
- 2) The Owner will consult the focal NNP1PC staff for confirmation and contact the Provincial or District Information, Culture and Tourism Department to obtain advices regarding the next steps.
- 3) The Contractor to recommence work only after the Department of Information, Culture and Tourism has provided official notification accordingly.
- 387. 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.
- 388. Construction activities are being undertaken in a manner to avoid any Physical effect on known sites of cultural and religious significances. Should any item be found, no work will be carried out within a 50m radius of a potential site until directed by the SMO and temporary fencing or similar demarcation will be used to mark a 50m radius from the site.
- 389. 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.

7.3.5 Summary of Programs

390. 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.

7.3.6 Roles and Responsibilities of Various Institutions

391. As with all other aspects, the program will be implemented in close cooperation between PAPs, the Provincial Department of Information, Culture and Tourism, 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 through its provincial and district departments 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.

7.3.7 Overall Implementation Schedule

392. Implementation of programs require adaptive management, to respond adequately to developing situation on the ground. Therefore, the Company will submit an Annual Implementation Plan to ADB within the first month of each calendar year

Work Plan	Емодиорац	Pre	С	onstruc	ction Ph	ase (ye	ar)	Оре	eration	Phase (year)
WOLK Flatt	Frequency	rie	1	2	3	4	5	1	2	3	•••
Archaeological surveys	Completed		+	+							
Excavations in Thahuea at 3 sites	Completed		+	+							
Construction of Museum at the resettlement site	Once				+	+					
Museum related Activities incl. cultural studies and surveys	2 events / year		+	+	+	+	+	+	+		
Village Training											
- 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		+	+	+	+	+	+	+		
- Zone 5	1 event / year		+	+	+	+	+	+	+		

Table 54 Cultural Awareness/Heritage Preservation Action Plan / Overall Implementation Schedule

CHAPTER 8 - Costs and Budgeting [DRAFT]

No.	Item	Costs in USD
	Labour Management Plan	
1	Labour Management Plan Includes verification, getting Labour Union in and training and other items	50,000
	Social Management Action Plan	
1	All SMAP Program budgets	250,000
	Public Health Action Plan	
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
	Gender Action Plan	
	Gender mainstream and capacity building for women leadership	83,521
	Youth and Children Action Plan Total	
1	Schools Program including adult literacy (detailed in REDPs)	F14 000
2	Scholarships Program	514,000
	Cultural Awareness/Heritage Preservation Action Plan	
1	Archaeological surveys	
2	Excavations in Thahuea at 3 sites	294,000 (not
3	Construction of Museum at the resettlement site	included literacy -
4	Museum related Activities incl. cultural studies and surveys	see above; ESD
5	Literacy Program	staffing costs in the REDP)
6	Village Training	
	Total Budget for SDP	2,072,000

Table 55 Cultural Awareness/Heritage Preservation Action Plan / Costs and Budgeting

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List of Annexes

- Annex A = Relevant articles of the Lao Labour Law (English)
- Annex B = Plans and drawings of the Houay Soup Resettlement Area Health Centre
- Annex C = Details of the Community Led Total Sanitation program
- Annex D = Annual Implementation Plan 2016

This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011).

The full information has been provided to monitoring agencies with the agreement of strict confidentiality.

Annex E = Report on Archaeological Verification at Tham Bing, Tham Phra and Tham Dan Por Sites

Annex F = Results of the 2014 Baseline Socio-economic Survey