

Resettlement and Ethnic Development Plan

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

Resettlement and Ethnic Development Plan Updated Zone 2 Lower Reservoir (REDP-2LR)

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

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Nam Ngiep 1 Hydropower Project

Resettlement and Ethnic Development Plan

Update Zone 2 Lower Reservoir

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Abbreviations

<i>Abbreviation</i>	<i>Full Name</i>
2LR	Zone 2 Lower Reservoir
2UR	Zone 2 Upper Reservoir
ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency syndrome
APs	Affected People
ARI	Acute Respiratory Infection
ASL	Above sea level
AusAID	Australian Agency for International Development
B.	“Ban” - Village in Laotian Language
BCS	Broad Community Support
BoD	Bord of Directors
CA	Concession Agreement
CDF	Community Development Fund
cent/kWh	Cent per kilo Watt hour
CFRD	Concrete Faced Rock fill Dam
COD	Commercial Operations Date
CPS-NSC,2002	CPS-National Statistical Center,2002
DAFEO	District Agriculture and Forestry Extension Office
DAFO	The District Agriculture Forestry Office
DCC	District Coordination Committee
DEPD	Department of Energy Promotion and Development
DESIA	Department of Environmental and Social Impact Assessment inside MoNRE
DGC	District Grievance Committee
DGRC	District Grievance Redress Committee
DHO	District Health Office
DHPM	Department of Hygiene and Preventive Medicine
DLF	Department of Livestock and Fisheries
DOF	Department of Forestry
PAP	Project Affected Person/s
DPWT	Department of Public Works and Transport

<i>Abbreviation</i>	<i>Full Name</i>
DRWG / DWG	District Resettlement Working Groups / District Working Groups – old terminology; NNP1’s relevant institution is labelled DCC – District Working Group
DS	Downstream
E&S	Environmental and Social
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
EL.() m	Meters above Sea level
EM	Environmental Manager
EMMP	Environmental Management & Monitoring Plan
EMMU	Environmental Management and Monitoring Unit
EMO	Environmental Management Office
EMU	Environmental Management Unit
EOD	Explosive Ordnance Disposal
EPF	Environmental Protection Fund
EPI	Expended Program of Immunization
EPL	The Environmental Protection Law (National Law 02/99)
ERIC	Environmental Research Institute of Chulalongkorn University
ESD	Environment and Social Division
F/S	Feasibility Study
FAO	Food and Agriculture Organization of The United Nations
FIPC	Forest Inventory and Planning Centre
FS, F/S	Feasibility Study
FSL	Full Supply Level
FWL	Flood Water Level
GAP	Gender Action Plan
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GIS	Geographical Information System
GMS	Greater Mekong Sub-region
GoL	Government of Lao PDR

<i>Abbreviation</i>	<i>Full Name</i>
GPS	Global Positioning System
GRID	Gender Resource and Information Development (GRID) Centre
GRM	Grievance Redress Mechanism
GWh	Giga Watt Hour (one million watt hour)
H/H, HH	Household
Ha	Hectare
HC	Head Construction Contractor
HCC	Head Construction Contract
HEPP	Hydroelectric Power Project
HH	Households
HIV	Human Immune Deficiency Virus
HRD	Human Resources Development
HV	High Voltage
IAP	Independent Advisory Panel
IAR	Impacted Asset Registration
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association (a unit of the World Bank groups)
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IMA	Independent Monitoring Agency
IMR	Infant mortality Rate
IOL	Inventory of Loss
IRR	Internal Rates of Return
IRRI	International Rice Research Institute
JBIC	Japan Bank for International Cooperation
JSC	Joint Steering Committee
KANSAI	The Kansai Electric Power CO.,INC.
kV	Kilo volt
kW	Kilo watt
LACP	Land Acquisition and Compensation Plan
LAK	Lao Kip
LAR	Land Acquisition and Resettlement
LFNC	Lao Front for National Construction

<i>Abbreviation</i>	<i>Full Name</i>
LHSE	Lao Holding State Enterprise
LIRP	Livelihood and Income Restoration Plan
LNFC / LFNC	Lao National Front for Construction / Lao Front for National Construction
LRHS	Lao Reproductive Health Survey - 2000
LSHE	Lao Holding State Enterprises
LTA	Lenders' Technical Adviser
LWU	Lao Women Union
MAF	Ministry of Agriculture and Forestry
MAR	Mean Annual Runoff
MCTPC	Ministry of Communication, Transportation, Post and Construction
MDB	Multilateral Development Bank
MEM	Ministry of Energy and Mines
MMR	Maternal Mortality Rate
MOH	Ministry of Health
MOL	Minimum Operation Water Level
MoM	Minutes of Meeting
MoNRE	Ministry of Natural Resources and Environment
MOU	Memorandum of Understanding
MSL	Mean Sea Level
MSY	Maximum Sustainable Yield
MW	Mega Watt (one million watt)
MWL	Maximum Water Level
N/A	Not Applicable
NAFRI	National Agriculture and Forest Research Institute
NBCA	National Biodiversity Conservation Area
NGO	Non-Government Organization
NGPES	Nation Growth and Poverty Eradication Strategy
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)
NTFP	Non-Timber Forest Product
NUOL	National University of Laos

<i>Abbreviation</i>	<i>Full Name</i>
NWL	Normal Water Level
OHS	Occupational Health and Safety
PAFO	Provincial Agriculture and Forestry Office
PAI	Project Area of Influence
PAP	Project Affected Persons
PDA	Project Development Agreement
PDR	People Democratic Republic
PGRC	Provincial Grievance Redress Committee
PHO	Provincial Health Office
PIZ	Project Implementation Zone
PLUP	Participatory Land Use Planning
PM	Prime Minister
PMF	Probable Maximum Flood
PMO	Prime Minister's Office
PPA	Power Purchase Agreement
PPE	Personal Protective Equipment
PRLRC	Provincial Resettlement and Livelihood Restoration Committee
PS	Performance Standards
QA	Quality Assurance
RAP	Resettlement Action Plan
RCC	Roller Compacted Concrete
REDP	Resettlement and Ethnic Development Plan
REDP-U2LR	Resettlement and Ethnic Development Plan - Update for Zone 2LR
REDP-U2UR	Resettlement and Ethnic Development Plan - Update for Zone 2UR
REDP-U3	Resettlement and Ethnic Development Plan - Update for Zone 3
RMU	Resettlement Management Unit
RO	Resettlement Office
ROW	Right of Way
RTM	Round Table Meeting
SDP	Social Development Plan
SIA	Social Impact Assessment
SMMP	Social Management and Monitoring Plan
SMO	Social Management Office

<i>Abbreviation</i>	<i>Full Name</i>
SPS	Safeguard Policy Statement
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TL	Transmission Line
TA	Technical Assistance
THPC	Theun-Hinboun Power Company
TOR	Terms of Reference
TSS	Total Suspended Solids
UN	United Nations
UNICEF	United Nations International Emergency Children's Fund
US	Upstream
US\$ / USD	United States Dollar (US Dollar)
UXO	Unexploded Ordnance
VDC	Village Development Coordination Committee
VRC	Village Resettlement Committee

Executive Summary

1. **Overall situation.** The Nam Ngiep 1 Hydropower Project is 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. **Schedule of construction.** Main construction activities of NNP1 started as scheduled in October 2014. Reservoir impoundment is scheduled for the rainy season of 2018. Electricity will be generated from Commercial Operation Date (COD), due in January 2019, over a concession period of 27 years.
3. **The Resettlement and Ethnic Development Plan (REDP).** The approved Project REDP was made public and uploaded onto the Project and Asian Development Bank (ADB) websites in June 2014¹. The REDP provides a comprehensive background to the Project and the legal framework in which the Project functions as well as a description of the applicable social safeguards policies. It further presents all project social and livelihood restoration plans including the Compensation Policy, Zonal Resettlement Action Plans [RAPs], Livelihood and Income Restoration Plan [LIRP], Ethnic Development Plan [EDP], Public Consultation Plans leading to Broad Community Support (BCS), and describes the implementation and monitoring structures for these programs as well as a schedule and budget for their execution.
4. **Zone 2LR REDP Update.** The REDP is organised by Project Impact Zone (PIZ). The PIZ consists of the areas affected by Project construction or operations, or in which the Project has environmental and social (E&S) commitments with the Government of Lao PDR (GoL). The PIZ crosses two provinces, Xaysomboun and Bolikhamxay. The Project has also identified and described impact sub-zones (see main REDP). This document is an update of Project activities addressing social impacts in Zone 2LR, including the villages of Houaypamom, Sopphuane, Sopyouak and Namyouak, which are located in Hom District, Xaysomboun province.
5. The updated Zone 2LR REDP (REDP-U2LR) presents the overall entitlement policy (compensation in kind or in cash at replacement value; income restoration, etc.) including eligibility criteria for compensation (including people with customary land rights), the detailed entitlement matrix containing all forms of impacts and resulting entitlements, and further details on the implementation of mitigation measures and provision of entitlements for 2LR villages. It also presents details on the Houay Soup resettlement site, with updated housing designs, village layout, site boundaries and livelihoods activities zones.
6. The REDP U2LR presents the broad institutional framework as well as the operative chart specifically developed for implementation of Zone 2LR Land Acquisition and Compensation Plan (LACP) and support activities. Programs will be internally and externally monitored over the whole construction period. Land acquisition for Zone 2LR is targeted to begin in Q3 2016 and conclude in early 2017. Construction of replacement housing, pegging of garden plots, and allocation of replacement agricultural land, is due to start in Q4 2016.
7. **Public Consultations.** This Zone 2LR updated (REDP-U2LR) plan includes recent details of the consultation process and its methodology with 2LR households. All households except 2 in 2LR belong to the Hmong ethnic group, therefore BCS is required. Documentation of this process is included in Chapter 10. Consultation outcomes are the result of constant interaction with concerned stakeholders

¹ <http://www.adb.org/projects/41924-014/documents>; <http://namngiep1.com/documents/social-reports/>

over a long period, and this interaction continues as a key Project approach.

8. Information on the project has been disseminated through public consultation with project affected persons (PAP) and others in the impact area, while information has been gathered from affected people as the base for revising and amending assessments and plans originally outlined in the REDP. A summary of these consultations is included in Table 78, and minutes of recent meetings included as Annex C.
9. The Project addresses special needs of ethnic groups and vulnerable people, including preventing impacts on cultural sites, use of Hmong language during all interactions with PAPs, and consultations and trainings to enhance peoples' capabilities to cope with project impacts and adjust to life in their new village (Houay Soup).
10. On-going consultations and an established grievance redress mechanism (GRM) ensure constant and meaningful communication between Project and PAPs. Information dissemination and consultation activities were conducted as outlined in Table 78, with further activities planned over the next months. Key issues or concerns raised by PAPs to date are as follows: (i) Fair compensation prices; (ii) replacement land; and (iii) soil fertility in Houay Soup. Some PAPs are unwilling to relocate to Houay Soup and have requested cash compensation instead. Households will be given the opportunity to choose either the option of relocating to Houay Soup with its attendant support programs in following years, or to accept cash compensation instead. If households selecting the latter option subsequently opt to self-relocate, they will be eligible to participate in Project supported activities provided they remain within the Project Area of Influence - PAI (refer to REDP section 5.2.17).
11. Disclosure of information and ongoing consultations allow concerns to be addressed at an early stage and enable joint planning to find optimal replacement and compensation solutions. The Project's GRM catches remaining problems arising during the compensation process, solving potential conflicts between Project and PAPs.
12. To avoid speculation and claims from people who are not owners of assets, not residing/using or having any legitimate claim to membership in the communities in the PIZ, the Project's Provincial Resettlement and Livelihood Restoration Committee (PRLRC) declared an eligibility cut-off date for all compensation phases on April 11, 2014. However, as it has taken the PRLRC more time than anticipated to finalise unit rates for compensation, particularly with Zone 2LR PAPs, the Project has accepted it will need to include compensation entitlements for all impacted assets established before the declaration and dissemination of the revised cut-off-date issued after PRLRC agreement of unit rates, as well as up to the commencement of the asset registration. The updated cut-off-date for Zone 2LR was declared by the PRLRC as 21 August 2015 and disseminated on 01 and 02 September 2015 in Zone 2LR villages together with the compensation unit rates. This arrangement is re-confirmed by the PRLRC notification No. 695/ PG. XSB, dated 17 June 2016, clearly stating the cut-off-date to be 03 September 2015 as the cut-off-date of the project in 4 communities in Zone 2LR. This update was disseminated to the 4 communities on 23 and 24 June 2016. The asset registration for Zone 2LR villages was completed in July 2016. For the 21 households in Nam Youak who refused to participate in the asset registration process, satellite imagery was used to measure unclaimed land in Nam Youak. As of this updated REDP, the scheduled relocation date for 2LR PAPs to Houay Soup Resettlement Area is confirmed early 2017 before the start of the wet season in June 2017.
13. Investigation of the Houay Soup residential and garden land area for Unexploded Ordnance (UXO) was conducted in the dry season of 2015. Fortunately the resettlement site was not an area targeted during the American War, and the likelihood of finding UXO is low. Nonetheless, some discarded and spent munitions have been found and rendered safe. UXO investigation of other land areas have

continued after the 2015 rainy season and is completed before land is developed.

14. **Impacted Community.** Zone 2LR encompasses lowland areas inundated in the lower part of the reservoir and with them the villages of Houaypamom, Sopphuane, Sopyouak and Namyouak with a total of 481 households (source: Census 2014). The Project will permanently impact all residential areas of the 4 villages and the most significant part of the productive lands belonging to these households. Project impacts have been updated through a detailed process of asset registration, completed in June 2016. It covers all land and assets belonging to Zone 2LR PAPs in the inundation area and the land assets above FSL.
15. **Table 1** lists the number of structures registered, impacted lands are listed in Table 54, impacted trees are listed in Table 55 and Table 56 and perennial crops in Table 57. The scope of land acquisition is fully described in Chapter 4. Graves and cemeteries impacted in Zone 2LR are covered in a dedicated REDP Update on Graves and Cemeteries, available on the Company and ADB websites and not part of this document.

No	Impacted Structures	Houaypamom (# of structures)	Namyouak (#of structures)	Sopphuane (#of structures)	Sopyouak (#of structures)	Total (#of structures)
1	Animal pen	32	96	55	133	316
2	Cattle pen	7	38	3	26	74
3	House	60	165	91	213	529
4	Kitchen	32	106	46	142	326
5	Other	118	422	207	516	1,263
6	Poultry pen	73	222	100	280	675
7	Rice storage	30	97	46	131	304
8	Ricefield hut	20	31	8	40	99
9	Ricemill	4	13	6	25	48
10	School	2	-	2	-	4
11	Shop	1	20	3	22	46
12	Storage	-	1	2	2	5
13	Toilet	10	88	25	84	207
14	Canal	22	-	-	46	68
15	Road	1	-	-	1	2
Total:		412	1,299	594	1,661	3,966

Table 1: Impacted Structures of Zone 2LR (Source: Asset reg. 2016)

16. **Land Acquisition and Resettlement.** Land acquisition in Zone 2LR is required, because the whole residential areas and most productive lands will be inundated by the main reservoir in 2018. It is scheduled that 2LR households will be resettled in early 2017, after the resettlement of Hatsaykham and one year before reservoir impoundment. All five communities will be resettled together in the Houay Soup site.
17. The construction of infrastructure in the Houay Soup resettlement site is implemented in two phases, enabling all essential elements of the site to be prepared before Hatsaykham relocation. The early move of Hatsaykham will also function as a demonstration of the Project's ability to facilitate resettlement of the larger group of resettlers from 2LR in 2017. The Company and Government counterparts strongly recommend PAPs to resettle to the Resettlement site in Houay Soup, where the full set of facilities will

be provided for their family and community development. However, there are PAPs who have expressed their desire to arrange their own resettlement, as per Self-Resettlement entitlement. The indicative choice survey, conducted in May and June 2016 indicated that 15 DP preferred to resettle to the Houay Soup Resettlement Area, while 268 PAPs indicated that they preferred to organize their own resettlement (self-resettlement) and 154 households had not yet decided what they would prefer. The final choice survey will commence in Q3 and be concluded in Q4 of 2016. The experience in Hatsaykham showed that initially a high number of PAPs requested self-resettlement during the indicative choice survey (80%), but during the final choice survey this number reduced to 50% and later 6 Households requested to be allowed to change and resettle at the Houay Soup Resettlement Area, further reducing the number of self-resettlers. Therefore, the Company will continue to develop essential community infrastructure in the HSRA for Resettlers from 2LR, until the final choice survey has been completed.

18. For graves and cemeteries, a dedicated REDP Update is available on the Companies and ADB's website. They are therefore not listed in this REDP Update.
19. **Other Social Impacts.** Social impacts associated with the construction activities of a project of this nature not covered by land acquisition and resettlement will be addressed and mitigated through the implementation of the Social Development Plan (SDP). The SDP has already been disclosed on the Project's and ADB's websites (*op cit*).
20. All activities will be funded by NNP1PC, with a Pre-COD estimated budget of 21,635,755 USD². For those activities limited by scope, the budget may be revised upwards to reflect changing needs. Activities to date have been carried out jointly between the PAPs, GoL, and NNP1PC, and this will continue.

² Budget estimate of the pro-ratio budget for Houay Soup Resettlement Site Development, Compensation cost and Livelihood Restoration program. See chapter 14 for Budget details.

This version of the REDP U2LR has been published in October 2016 on Company and ADB Websites and in all Project information centres. This REDP U2LR will be revised whenever major milestones have been reached and/or new information is available to integrate.

CHAPTER 1 - Introduction

1.1 *Project Description*

21. The Nam Ngiep 1 Hydropower Project (Project) encompasses the construction of a hydropower dam, re-regulation dam, two power houses, transmission lines, and necessary supporting infrastructure such as roads, camp sites, quarries, etc.; by the Nam Ngiep 1 Power Company (NNP1PC). The owners of Nam Ngiep Power Co., Ltd. are the Kansai Electric Power Co., Inc. (Kansai Electric) from Japan, EGAT International Co., Ltd. (EGATi) from Thailand, and Lao Holding State Enterprise (LHSE) from the Lao PDR.
22. The Project is situated on the Nam Ngiep River, which is a left bank tributary of Mekong River. The Project will construct a 166-meter high concrete gravity dam on the Nam Ngiep River, including the main power station of 272 MW capacity capable of an annual power generation of 1,546 GWh. Once in operation, the reservoir of the main dam will have maximum surface area of 66.9 km², covering parts of Bolikhamxay and Xaysomboun Provinces. An effective storage of 1,192 million m³ from the reservoir is designed to drop up to 130 m to the main power station downstream from the main dam.

1.2 *About the REDP U2LR update*

23. The REDP U2LR is an enriched version of the REDP already publicly disclosed. This document further develops the updates of plans outlined in the REDP and other social documents. It is complementary to all these documents, i.e. certain sections of the overall REDP and planning documents will not be repeated in this document but referred to where relevant. A detailed description of the Project can be found in the Social Impact Assessment, Chapter 2³.
24. The REDP-U2LR focuses on the affected communities in Zone 2LR: Ban Houaypamom, Ban Soppuane, Ban Sopyouak and Ban Namyouak.
25. This REDP-U2LR describes the systematic program of all social, economic, and cultural mitigation measures requiring compensation, either in cash or in kind for 2LR communities. Its purpose is to ensure that all PAPs impacted by impoundment in the Lower Reservoir area are compensated at full replacement value for losses, and provided with rehabilitation measures so that PAPs will have their livelihood restored. All PAPs in 2LR villages will be significantly affected and are eligible for the full range of compensation, livelihoods restoration and social support measures.

³ <http://www.adb.org/projects/41924-014/documents>



Figure 1 Satellite map of project location

26. Land acquisition and compensation procedures will be conducted through meaningful consultations and with the approval of the PRLRC. The REDP-U2LR:
- summarises the applicable legal and policy frameworks of the Lao Government, appropriate ADB Safeguards Policy Statement (SPS) 2009, Equator Principles (EPs), and International Finance Corporation (IFC) Performance Standards (PS)
 - provides the entitlement matrix for Zone 2LR
 - describes the steps towards income restoration where required
 - presents the methodology of information disclosure and consultation with communities and institutions, and establishment of activities including the GRM
 - sets out procedures and policies for ethnic groups and gender planning
 - outlines the institutional arrangements as well as monitoring and reporting structures and
27. The REDP-U2LR is consistent with the REDP of the NNP1 Project in the definition of terms, legal framework, project principles, entitlements, roles and responsibilities of payment procedures, reserve fund, internal and external monitoring procedures and reporting. This includes measures for (i) those relocating to the designated resettlement site; (ii) those opting to self-relocate, or resettling with another Hmong community; and (iii) those facing loss of other lands and/or of sources of livelihoods because of the project. Livelihoods of PAPs will be restored by the Project as outlined in the LIRP (see Chapter 9 and overall REDP). The document also includes an Ethnic Development Plan (EDP; see Chapter 9 and overall REDP) as most PAPs of 2LR villages belong to an ethnic group meeting criteria defined in ADB's SPS of indigenous peoples. The EDP summarizes the Project's policies and programs to mitigate impacts and enhance benefits on culture, livelihoods and other issues specific to PAPs from ethnic groups, and presents details regarding implementation for 2LR villages. The REDP-U2LR contains methodologies and frameworks as well as key summarised baseline social information and assessments of project impacts and their significance. The core of the REDP-U2LR includes the mitigation plans (Compensation Policy and Procedures, Resettlement Plan, LIRP, and EDP) as well as implementation structures (communication strategy, institutions, entitlement matrices, implementing schedule, and budget).
28. Various methods have been used to collect relevant data to prepare the REDP-U2LR, including: population survey, assets registration, and in-depth consultations with PAPs, their local leaders and elders, district and provincial administrators, and other key informants. Information on the project, including proposed entitlements, programs and activities, has been disseminated through public consultation with PAPs and others in the study area (see overall REDP and Chapter 10). Details on development of the plans since the feasibility studies in early 2000 can be found in the overall REDP. The plans are in compliance with GoL and ADB safeguard standards and incorporate feedback from PAPs into project planning and program development.
29. During project implementation, numbers of people and affected assets may change. The revised Cut-Off-Date has been announced by the PRLRC as 21st of August, 2015. Disclosure of the revised Cut-Off-Date was conducted through (i) informing the Village Authorities through a formal letter and (ii) a consultation meeting, organized in the 4 villages of 2LR villages on 1st and 2nd of September 2015, inviting all households to join the consultation meeting. This arrangement is re-confirmed by the PRLRC notification No. 695/ PG. XSB, dated 17/06/2016, clearly stating the cut-off-date to be 03 September 2015 as the cut-off-date of the project. This update was disseminated to the 4 communities on June 23 and 24th 2016. Minutes of these meetings, including attendance record are attached in Annex C. While an increase in numbers will alter provisional budgets presented in this report, it does not

change Project obligations towards PAPs which are limited by scope and not by budget.

1.3 *Project Implementation Zones*

30. The Project Implementation Zone (PIZ) describes the area affected by project construction and operations, or in which the project has E&S commitments with GoL (see map in Figure 2)
31. **Zone1 Upstream** - 4 villages located upstream of the reservoir. Impacts are predicted to be minor, consisting of a relatively small loss in fish catch as a result of the impoundment of the downstream reservoir. This zone will already have been impacted by the operation of the Nam Ngiep 2 project. Fish catch monitoring is being conducted in order to evaluate project impacts.
32. **Zone 2 - Reservoir Area** - covers the area affected by reservoir. There are 2 sub-zones. The communities in the upper section of the reservoir, Zone 2UR, will be affected by partial inundation of land. Communities in the lower section of the reservoir, designated as Zone 2LR, will be completely inundated and residents will need to be resettled.
33. **Zone 2UR - Upper Reservoir Area** - covers the upper section of the immediate catchment area of the 320m MSL main reservoir. Three (3) villages (Pou, Hatsamkhone, Piengta) located alongside the Nam Ngiep River will be directly affected. All belong to Thathom District, Xaysomboun Province.
34. **Zone 2LR - Lower Reservoir Area** - covers the lower section of the reservoir, where 4 villages (Houaypamom, Sopphuane, Sopyouak, and Namyouak) will be completely inundated. All are located in Hom District, Xaysomboun Province. All households in these villages will be resettled and compensated for the loss of housing, residential land, productive lands, and other assets, and will have livelihoods restored.
35. **Zone 3 - Construction Area** - covers the area where the main project components 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 its reservoir. There is one (1) directly affected community (Hatsaykham Hamlet) in this zone, administratively included in the village of Hat Gniun in Bolikhan District, Bolikhamxay Province.
36. **Zone 4 - Downstream** covers the villages located downstream of the re-regulating dam and affected by the operations of the Project.

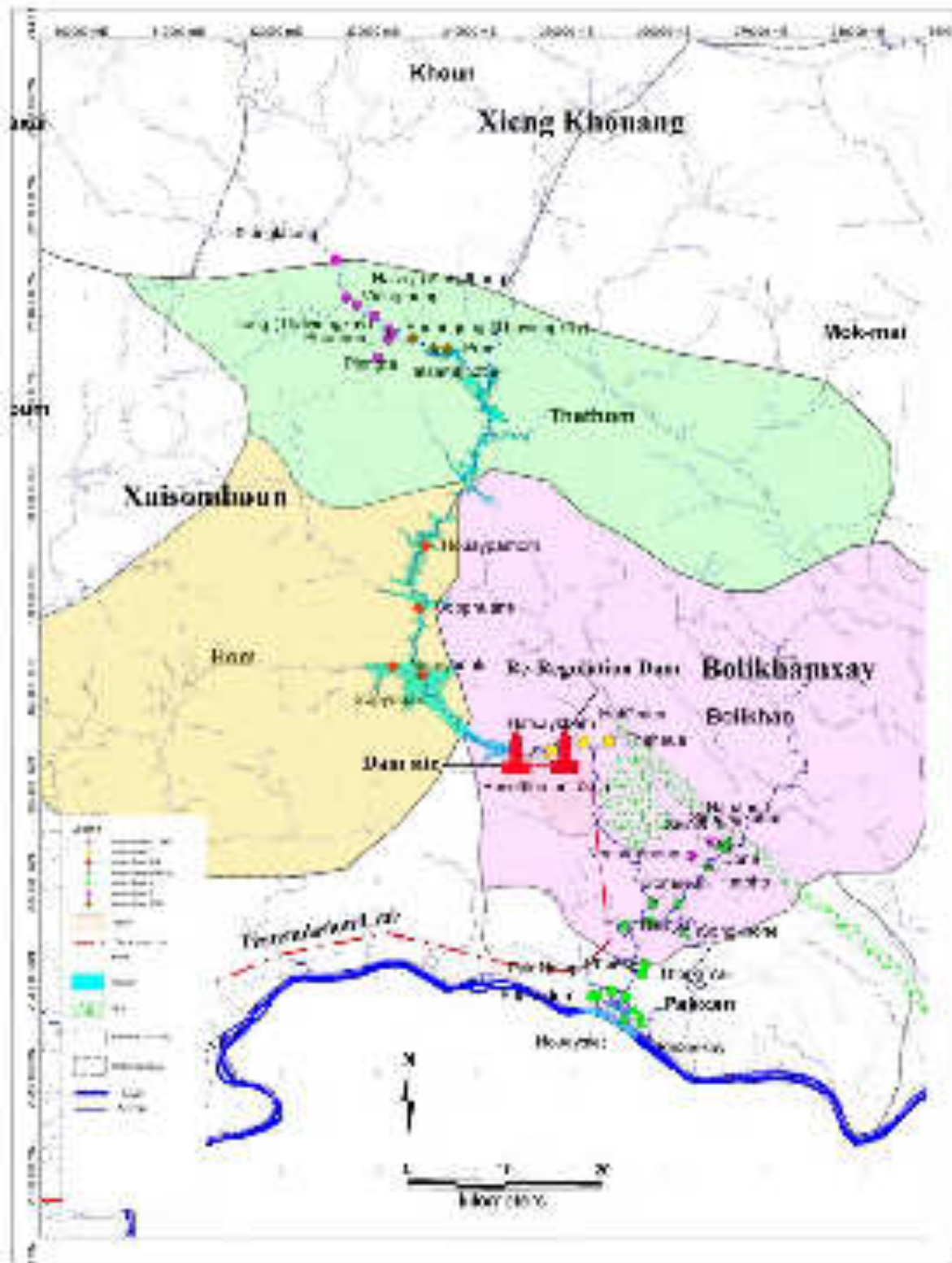


Figure 2 Map of NNP1 Project Implementation Zones

37. **Zone 5 - Host Villages.** The Houay Soup Resettlement Area is located on the opposite bank of the Nam Ngiep River from Ban Hat Gniun and immediately south of the re-regulation reservoir and dam. It has been selected as the resettlement area for the four villages from Zone 2LR and the sub-village of Zone 3. As the nearest villages to the resettlement site, Ban Hat Gniun and Ban Thahuea are considered host

villages to the resettled communities. Households from Hat Gniun and Thahuea have cultivated land or communal village land in the Houay Soup area.

38. **Transmission Line** – 24 villages located in 3 provinces affected by the permanent acquisition of land for transmission tower bases and the temporary impact from construction and line stringing. The exact location of towers and the number of households impacted has not yet been finalised.
39. Access Road – 4 villages and 1 sub-village (including Hatsaykham, Hat Gniun and Thahuea) affected by land acquisition for widening and realigning the access road to the main construction site.

1.4 *Project Area of Influence*

40. The Project Area of Influence encompasses the districts of
 - Bolikhan, Bolikhamxay Province,
 - Hom, Xaysomboun Province
 - Thathom, Xaysomboun Province
41. Excluded from the Project Area of Influence are areas defined by GoL as proscribed to PAP relocation due to it being a military area, or awarded as a concession to another party, or prohibited for other reasons including security such as in the NNP1 construction site.
42. The Governor of Bolikhan declared in notice No.103/DAO.BLK, dated 18 Mar 2016 that the villages of Hat Gniun and Thahuea are proscribed to PAPs who are self-resettling.
43. PAPs relocating within the project area of influence will be covered by the Project’s monitoring and evaluation program (poverty elimination test and maintaining economic parity test) and provided income restoration and livelihood development support ; the community baseline income statistics will reflect these cases accordingly. Since the costs for titling replacement land outside the project area are part of the cash compensation unit rates costs, the Company bears no responsibility for ensuring the processing of land titles (see REDP Annex B, Detailed Entitlement Matrix Zone 2LR, 0.10 Eligibility criteria for self-resettlement).

1.5 *Zone 2 Lower Reservoir (2LR)*

44. Zone 2LR is the focus of this updated REDP. There are four affected villages in Zone 2LR, from north to southwest they are Ban Houaypamom, Ban Sopphuane, Ban Sopyouak and Ban Namyouak. They are all located in Hom District of Xaysomboun Province, about 12 to 25 km upstream from the dam site, which is located in Bolikhan District of Bolikhamxay Province. See map in Figure 3.
45. All villages were established in the Nam Ngiep valley after the end of the war in the eighties and nineties.
46. Ban Sopphuane is the oldest of the 4 communities. It was established in 1981 on the right bank of Nam Ngiep just below the confluence of the Nam Phuane River by families that moved to the area from Ban Nong Tao, also in Xaysomboun Province.
47. Ban Sopyouak (also called Ban Nong) was established at the mouth of the Nam Youak in the mid-1980s. In 1987, the government built a dirt road into the area, to link Ban Nong to the nearest administrative offices and public services at Phalaveck Sub-district.
48. Ban Namyouak was established in 1984. It is named after the Nam Youak River, and lies on a terrace

along the right bank about 3 km from the confluence with the Nam Ngiep.

49. Houaypamom is located in the river valley, on the right bank of the Nam Ngiep River, and is the most recently established community in 1996 with people coming from various areas. Access to the village is only by boat.
50. All villages are located under FSL and the project impact will result in the inundation of all 4 villages and a significant part of their agricultural land by the main reservoir.
51. The 2LR communities will be resettled to the designated Houay Soup resettlement site, located on the right bank of the Nam Ngiep River although PAPs have an option of self-resettlement. The Project will provide the infrastructure to establish this site for a new village. This document describes in further detail how impacts will be mitigated and livelihoods restored for the people of Zone 2LR.

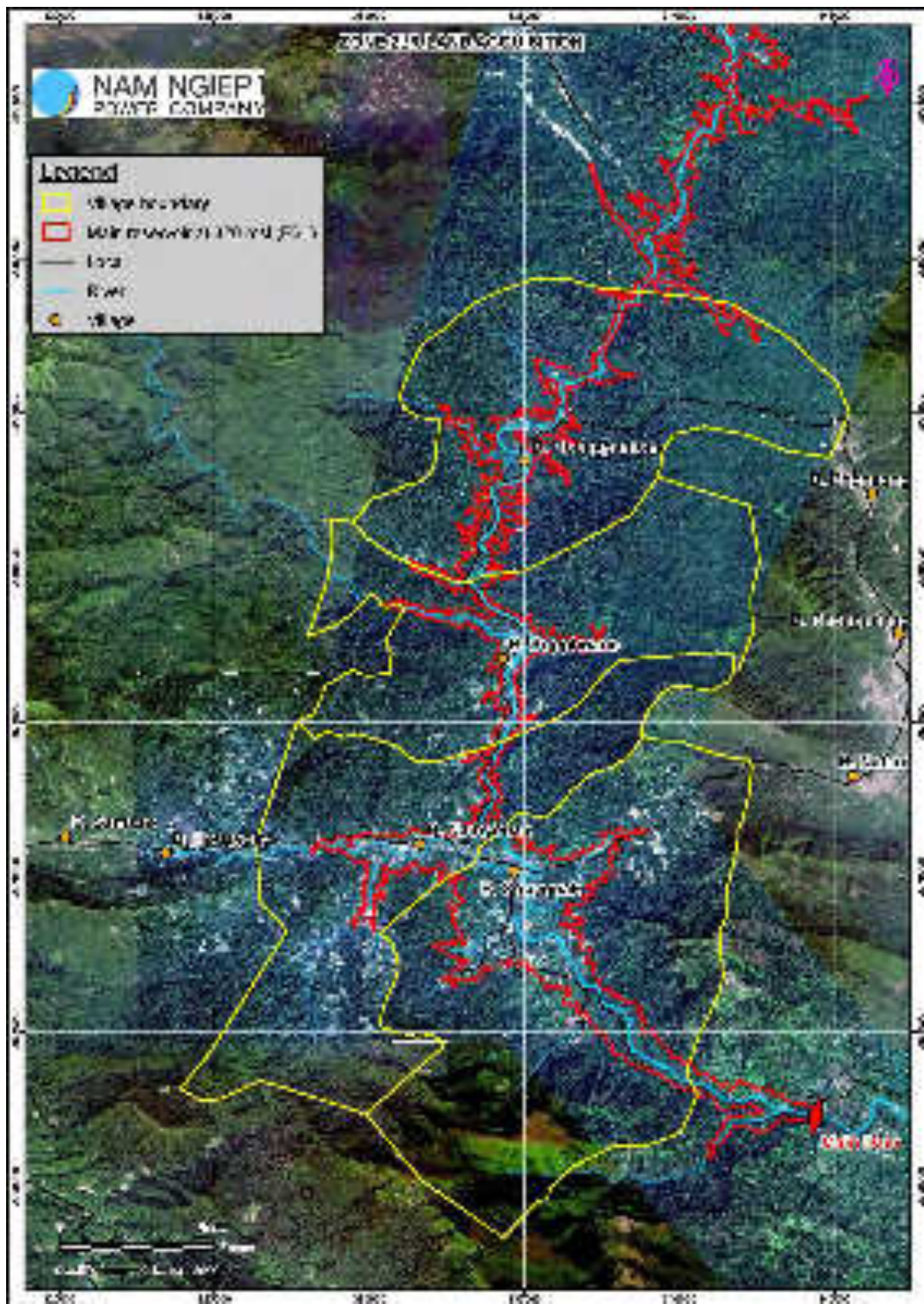


Figure 3 Satellite map of Zone 2LR showing inundated area

CHAPTER 2 - Legal Framework

52. The Project is implemented in a manner consistent with national laws and regulations as well as international policies, performance standards and best practices. In addition to the REDP, these requirements are described in:
- the Concession Agreement (CA) with the Government of Lao PDR (GoL), integrating essential Decrees as Prime Minister's Decree No 192/PM and the Decree on the Environmental Impact Assessment as well as
 - the Facility Agreement with the ADB, integrating amongst others ADB's SPS and other social policies,
 - the Facility Agreement with the Japan Bank for International Cooperation (JBIC) integrating IFC PS, and
 - the Common Terms Agreement (CTA) with commercial lenders who apply Equator Principles (ES).
53. The Project's CA (Annex C, Appendix 2) outlines in details applicable standards, of which a selection is included in Table 2.
54. A detailed analysis of the Project standards including a Gap Analysis between ADB and Lao regulations can be found in the REDP, Chapter 3, which also includes further details on gender and development, methods of valuations for compensation, and a discussion on ethnic groups. The Project follows the general principle, agreed in the CA, that in the case of differences between standards, the Project will always apply the higher standard to the advantage of PAPs. Lao and international standards form the base for the CA, Annex C on Environmental and Social Obligations of the Project, which is the immediate reference for the Project in handling Land Acquisition and Compensation. The following chapters will refer to details in CA, Annex C as necessary.

Year	Institution	Subject
1996	GoL	Water Resources Law, No 05/NA; 11 October 1996 and the Presidential Decree promulgating the law, No126/PDR;; 2 November 1996
1998	ADB	Gender and Development Policy (1998);
1999	GoL	Law on Environmental Protection; 3 April 1999
2001	GoL	Decree on the Implementation of the Environmental Protection Law; 4 June 2001
2001	ADB	Social Protection Strategy (2001)
2003	GoL	Constitution of the Lao People’s Democratic Republic; 15 August 1991, amended on 6 May 2003
2003	GoL	Land Law; 21 October 2003
2004	GoL	Law on Promotion on Foreign Investment; 22 October 2004
2005	GoL	Decree on the Compensation and Resettlement of Development Projects, No. 192/PM;; 7 July 2005
2005	GoL	National Policy on Environmental and Social Sustainability of the Hydropower Sector in Lao PDR, 7th June 2005.
2006	GoL	Regulations for Implementing Decree 192/PM on Compensation and Resettlement of People Affected by Development Projects
2007	GoL	Forestry Law; 24 December 2007
2007	GoL	Wildlife and Aquatic Law No 07/NA; 24 December 2007
2008	GoL	Electricity Law, No 03/NA; 8 Dec 2008
2009	GoL	Decree on State Land Lease or Concession; 25 May 2009, No. 135/PM
2009	GoL	The Law on Fishery No. 03/NA, dated 9 July 2009
2009	GoL	The Executive Decree on State Land Lease and Concession Fees Rate, No. 02/PR, dated 18 November 2009
2009	ADB	ADB Safeguard Policy Statement (2009) including (II) Safeguard Requirements 2: Involuntary Resettlement; and (III) Safeguard Requirements 3: Indigenous Peoples
2010	GoL	The Decree on Environmental Impact Assessment, No 112/PM; 16 February 2010
2010	GoL	Technical Guidelines on Compensation and Resettlement of People Affected by Development Projects, Regulation 699/PMO, MONRE March 2010
2011	ADB	Public Communications Policy (2011); and
2011	GoL	The Law on Electricity (Amended), No 03/NA, dated 20 Dec 2011
2002	IFC	IFC Handbook for Preparing a Resettlement Action Plan, 2002
2012	IFC	Performance Standard 5: Land Acquisition and Involuntary Resettlement
2012	IFC	Performance Standard 7: Indigenous Peoples
2012	IFC	Performance Standard 8: Cultural Heritage
2012	GoL	The Law on Environmental Protection, No. 29/NA, 18 December 2012
2013	GoL	The Ministerial Instruction on the Environmental and Social Impact Assessment for the Investment Projects and Activities No.8030/MONRE, dated 17 December 2013

Table 2 Applicable Legal and Policy Standards for the Project

CHAPTER 3 - Socioeconomic Profile

3.1 Demography and Population Changes

55. The 4 villages in Zone 2LR were established by Hmong families after the end of the war in the eighties and nineties, migrating from various areas of Xaysomboun and Xieng Khouang provinces. These families have relationships and relatives upstream in Zone 2UR, downstream in Hatsaykham and also in Hom District and beyond in Xaysomboun Province. The migration was guided by GoL's policies to eradicate slash-and-burn and to sedentarise Hmong in lowland areas.



Figure 4 Ban Houaypamom

56. A new census (August 2014) and baseline socio-economic survey (October – November 2014) of the population were conducted in 2014 to determine total population, expected losses and to integrate DP perspectives and concerns in the planned social and economic development activities. Survey results and Asset Registration show that the number of households has increased from 384 in 2011 to 481 households in 2014, and the total affected population have increased from 2,735 to 3,197 (Table 3). The age and gender structure of the population is shown in Table 4.

Village Name	HH	Population 2011		HH	Population 2014		Annual Population Growth Rate
		(Total)	(Fem.)		(Total)	(Fem.)	
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 3 Population Profile of Zone 2LR in 2011 and 2014 (Source: Census 2014)

Age (year)	Male	Female	Total
0-9	36%	32%	34%
10-19	26%	27%	26%
20-29	13%	15%	14%
30-39	10%	10%	10%
40-49	6%	7%	7%
50-59	5%	5%	5%
60+	4%	4%	4%
Total	100%	100%	100%

Table 4 Age and Gender Structure of 2LR villages (Baseline Socio Economic Survey, 2014)

57. Significant points for the resettlement action plan are as follows:
- Around 60% of the population is under age 19.
 - There is no significant difference in the age structure for each gender within the zone or within each village.
 - Population growth rate is approximately 5% per annum. A continuation of the current population growth rate will result in the doubling of the population of 2LR within 15 years.

3.2 *Ethnicity*

58. A total of 99.6% of households belong to the Hmong ethnic group with only 2 households living in Sopyouak identified as Lao Loum. No other ethnicities live in 2LR villages.

3.3 *House Style*

59. The majority of dwellings in 2LR villages are traditional Hmong structures of one storey built on rammed earth floor with the kitchen separate from the main house. Housing materials are of bamboo for the poorer households, and wood and sometimes brick for more prosperous households, with palm and rush roof roofing. Some elevated Lao Loum-style houses with wooden and bamboo matting construction for bedrooms have been adopted, while kitchens of Hmong type remain the same. The adoption of Lao Loum style dwellings by some households suggests that at least some of the population are prepared to adopt new technologies where they are seen to be advantageous. Household preferences have been taken into account when designing replacement housing in Houay Soup (see Chapter 8).
60. There are significant difference in the nature of the dwellings between the four villages but there does not seem to be a coherent difference in quality of dwellings between villages:
- More than 78% of dwellings in each village have wooden or brick walls.
 - Houaypamom has a high percentage of metal sheeting roof, probably because it's light weight is an advantage in transportation. Houaypamom also has a low percentage of traditional wooden roofs, which may relate to availability and transport.

WALL MATERIAL						
Village	Brick	Wood	Bamboo	Leaves	Other	TOTAL
Houaypamom	9%	74%	16%	0%	0%	100%
Sopphuane	4%	74%	22%	0%	0%	100%
Sopyouak	2%	82%	16%	0%	0%	100%
Namyouak	4%	87%	8%	1%	0%	100%
ROOFING MATERIAL						
Village	Tiles	Metal sheet	Wood	Leaves	Other	
Houaypamom	35%	51%	7%	5%	2%	100%
Sopphuane	56%	17%	21%	4%	3%	100%
Namyouak	40%	34%	23%	2%	1%	100%
Sopyouak	29%	37%	30%	2%	3%	100%
Total	38%	34%	24%	2%	2%	100%

Table 5 Housing construction material, 2LR villages (Source: 2014 Baseline Socio Economic Survey)



Figure 5 Typical House Styles in Khum Hatsaykham

3.4 Social Organization and Cultural Relations

61. Villages are the lowest level of government administration in the Lao PDR. Villages are administered by a Village Chief who is supported by a deputy and village council. Villages are combined into districts, which are combined to form provinces, finally resulting into the national level administration. Ministries on the national level have counterpart organisations on the provincial and district level. These public institutions are supported by mass organizations with structures at all administrative levels these mass organisation include the Front for National Construction, the Lao Women Union, and the Lao Youth Union. (Table 6).

	Number of members per village			
	Houaypamom	Sopphuane	Sopyouak	Namyouak
Lao Women's Union	45	42	14	33
Lao Youth Union	68	55	30	38
Lao Workers' Union	66	20	8	23

Table 6 Membership of mass organizations in 2LR villages (Source: Field Survey 2008)

62. PAPs are also integrated in family, social and cultural relations within and between villages. These include informal, but influential, elders' councils at the village level which have an essential say in the development of the community.
63. Hmong households in 2LR villages are also identified and linked by clan systems, which connect them with villagers from Hatsaykham in Zone 3, Ban Pou in the upper reservoir area and other villages in Hom District. These linkages extend further to Hmong communities in the rest of the country as well as abroad, which allows them to mobilize economic, cultural, political and social resources to support the communities in their communication with the Project. It also enables information about experiences in other hydropower projects to be widely shared and circulated.
64. Social Organization and Cultural Relations follow the pattern discussed in Chapter 7 of the REDP. Hmong groups are divided into patrilineal clans (*xeem*) which are strictly exogamous, that is marriage outside the birth clan is compulsory. Polygyny is traditional but less observed nowadays than in the past. However, there are only 20 cases of polygamy out of a total of 481 households in 2LR (Table 7). Loyalty to one's clan is central and clan solidarity is very important, linking members to villages throughout the country and even abroad.

	Houaypamom	Sopphuane	Sopyouak	Namyouak
Number of polygynous households	3	6	5	6

Table 7 Polygynous households in 2LR villages (Source: Baseline Socioeconomic Survey, 2014)

65. The Hmong are believed to have their origins as an ethnic group in China and to have migrated into northern Southeast Asia during the 19th century. There are 19 Hmong clans currently living in Lao PDR and they are generally group-oriented, with interests of the group coming before the interests of the individual, and clan leaders in each village representing the interests of the village. In the project impacted areas, there are four main clans: Yang, Vang, Xiong, and Lor, although there are some persons from clans such as Pialouang, Moua, Lee, Her and Vue who have married into these clans. Family

members are under the authority and direction of the male-headed clans and household, usually the oldest male. Sons will automatically inherit family property and all other assets, and generally receive the highest levels of formal education. For this reason, male elders represent village households in all discussions, particularly with outsiders, and it is unusual for any person or family to contradict elders in public meetings.

66. Hmong villages aim to be self - sufficient and autonomous with limited interaction with other ethnic groups. Of special importance is the historical as well as continuing clan-based relation to the village of Hatsaykham, whose people originate from the Zone 2LR. This relationship led to the request from affected households of Hatsaykham to resettle together with PAPs from 2LR rather than follow the original proposal, which was to move the village closer to the centre of their current administrative unit, Hat Gniun.

3.5 Infrastructure and services

67. Community infrastructure in the villages of Zone 2LR is limited. Overview of it is listed in Table 8 below.

Items	Village			
	<i>Houaypamom</i>	<i>Sopphuane</i>	<i>Sopyouak</i>	<i>Namyouak</i>
1. Infrastructure service				
Electricity	Pico-hydro and Solar Power			
Drinking water source Quantity/Quality	Nam Ngiep Nam Noi	Water Pipe Nam Ngiep Houay Phuane	Water Pipes Nam Ngiep Nam Youak	Water Pipe Nam Ngiep Nam Youak
Water use source Quantity/Quality	Water Pipes Nam Ngiep Nam Noi	Water Pipe Nam Ngiep Houay Phuane	Underground water Water Pipe Nam Ngiep / Nam Youak	Water Pipe Nam Ngiep Nam Youak
Transportation	Road access via a laterite road from Hom District via Phalaveck. Troublesome during wet season; waterway is limited within the vicinity because of islets and rapids			
2. Social Welfare				
Pre Primary	-			
Primary School	1	1	1	1
Secondary School	-	-	-	1
Temple	-			
Health Centre	-	-	1	-
Hospital	-			
Pharmacy	-			
Cemetery	1	1	1	1
Grocery	2	2	Available - not specified number	Available - not specified number

Table 8 Infrastructure of 2LR villages (Source: field visits 2014)

68. The main road access is a gravel (laterite) road from Hom District via Ban Phalaveck which is difficult to pass during the rainy season. The lanes and paths within the villages are compacted earth, and these become quite muddy in wet season. In 2014-15 NNP1 improved the bridge in Sopyouak. Their main waterway for transportation is the Nam Ngiep River, though parts of the river are difficult to travel because of rapids and rock outcrops in the rivers. Houaypamom has no road access.
69. None of the villages in this zone have grid electricity and the most common sources of electricity are Solar and Micro hydro (Table 9). 43% of households in Sopphuane have no electricity.

Type of Electricity	Houaypamom	Sopphuane	Sopyouak	Namyouak
Solar	79%	32%	51%	28%
Micro hydro	9%	18%	10%	39%
Generator	0%	3%	7%	14%
Rechargeable batteries	0%	4%	3%	1%
Other	0%	0%	0%	0.55%
Grid	0%	0%	0%	0%
No Electricity	12%	43%	29%	17%
Total	100%	100%	100%	100%

Table 9 Electricity infrastructure of 2LR villages (Source: Baseline Socio Economic Survey, 2014)

70. Drinking water comes from simple gravity flow water systems which transport source water from mountain streams or from wells. Water for other domestic uses is from the Nam Ngiep or its tributaries with associated water quality issues, or from wells. Sufficient water from the Gravity Flow water Supply system (GFS) is not available throughout the year. Details of household drinking water use from the 2014 baseline socio-economic survey are provided in Table 10 and Table 11. It should be noted that Houaypamom primarily uses surface water and rainwater in wet season and only surface water in dry season. In 2014/15 NNP1 repaired the water supply systems for Sopyouak and Namyouak.

Water Source in Wet Season	Houaypamom	Sopphuane	Sopyouak	Namyouak	Total
GFS	5%	94%	96%	100%	89%
River, Stream, Lake,	51%	5%	1%	0%	6%
Rainwater	44%	0%	0%	0%	4%
Protected Well	0%	0%	3%	0%	1%
Protected Spring	0%	1%	0%	0%	0%
Unprotected Spring	0%	0%	1%	0%	0%
TOTAL	100%	100%	100%	100%	100%

Table 10 Drinking water sources of 2LR villages in wet season (Source: Baseline Socio Economic Survey, 2014)

Water Source in Dry season	Houaypamom	Sopphuane	Sopyouak	Namyouak	Total
GFS	9%	94%	98%	100%	90%
River, Stream, Lake,	91%	5%	0%	0%	9%
Protected Well	0%	0	2%	0%	1%
Protected Spring	0%	1%	0%	0%	0%
Unprotected Spring	0%	0	1%	0%	0%
TOTAL	100%	100%	100%	100%	100%

Table 11 Drinking water sources of 2LR villages in dry season
(Source: Baseline Socio Economic Survey, 2014)

71. The availability of sanitation/toilets varies from village to village. Availability is very low in Houaypamom (12%) but high in Namyouak (71%). Almost all toilets are pour flush (99.6%) and 100% of toilets are used when owned (Table 12).

Village	Have toilet	Type of toilet		Use of toilet
		Pour Flush	Pit Latrine	
Houaypamom	12%	100%	0%	100%
Sopphuane	23%	100%	0%	100%
Sopyouak	42%	99%	1%	100%
Namyouak	71%	100%	0%	100%
TOTAL	47%	99.6%	0%	100%

Table 12 Sanitation in 2LR villages (Source: Baseline Socio Economic Survey, 2014)

72. All four the villages have primary schools – however, Ban Houaypamom only has grade 1 to 3 of primary school so not a full primary school. Children from there have to go to the school at Ban Sopphuane some 6 km away by boat to attend the higher grades of primary school. The school at Ban Sopphuane is not adequate, with relatively poor construction and insufficient materials and supplies.
73. Ban Namyouak also has a lower secondary school but teaching supplies and materials are insufficient. In 2014-15 the Project repaired, improved or built several structures prior to resettlement::
- 3 classrooms for primary school built in Sopyouak
 - 3 classrooms built for the secondary school in Namyouak
 - Sopphuane primary school improved
74. Ban Sopyouak has a health centre which is readily accessible by the residents of Ban Namyouak. None of the communities have temples or pharmacies.
75. All villages have small shops. These are typically single rooms or add-ons to people’s houses where they sell soaps, shampoos and detergents, toothpaste, and a variety of packaged and canned goods. Each community has more than one of these.

3.6 School Attendance

76. Table 13 provides the Primary Age Enrolment (PAE) in the 4 villages. There is no significant difference in PAE by gender, overall or in any single village. There is no significant difference in female enrolment between villages. There is a significant difference in male and total enrolment between villages: Sopphuane has the lowest enrolment of males and the lowest overall enrolment.

Village	Male	Female	Total
Houaypamom	85%	81%	83%
Sopphuane	71%	84%	77%
Sopyouak	92%	94%	93%
Namyouak	91%	92%	92%
Total	88%	90%	89%

Table 13 Primary age (6-10 years) enrolment in 2LR villages (Source: Baseline Socio Economic Survey, 2014)

77. Table 14 provides the Secondary Age Enrolment (SAE) in the 4 villages. There are significant differences in secondary age enrolment between villages overall with Houaypamom having very low SAE. There is no significant difference in Lower Secondary Enrolment by gender overall, however there

are differences within individual villages:

- Houaypamom has very low female SAE.
- Namyouak has lower male SAE.

Village	Male	Female	Total
Houaypamom	56%	16%	35%
Sopphuane	75%	68%	71%
Sopyouak	65%	69%	67%
Namyouak	66%	81%	74%
Total	66%	69%	68%

Table 14 Percent of students of lower secondary age (11-15 years) in 2LR villages that are enrolled in Lower Secondary education (Source: Baseline Socio Economic Survey, 2014)

78. Table 15 provides the mean age of student in Grade 5 (completion of primary school). As a reference the mean age Lao Loum in Grade 5 from all other project zones is =10.4±0.1years. Overall Hmong students are slightly older when they finish primary school (10.8±0.2).

Grade	Houaypamom			Sopphuane			Namyouak			Sopyouak			Total			
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	
5	Mean	11.6	7	11.1	10.7	11.7	11.3	10.7	10.6	10.7	10.6	10.6	10.6	10.8	10.8	10.8
	Se	0.9	-	0.9	0.6	0.7	0.5	0.2	0.7	0.4	0.3	0.3	0.2	0.2	0.4	0.2

Table 15 Mean age by Grade 5 in 2LR villages (Source: Baseline Socio Economic Survey, 2014)

3.7 Adult Education and Literacy

79. Literacy is a challenge for rural communities and also for the Project's communication efforts in Zone 2LR.
80. Highest school grade completed by adults of more than 18 years is illustrated in Figure 6. Overall 13% of adult males have no formal education but 41% of females have no formal education. In total, 51% of adult men have some post primary education, but only 21% of adult women.
81. Educational achievement by adults is strongly controlled by age. The youngest generation of male adults (20-29 years) in 2LR have received 9 years of schooling on average, but this number falls to 4.5 years for males 50-59 years. Females have significantly fewer years of formal education in all age groups. Young female adults have 5 years of formal education on average but females 50-59 years have only 1 year of formal education (Table 16).
82. The length of formal education is particularly low in Houaypamom (Table 17).

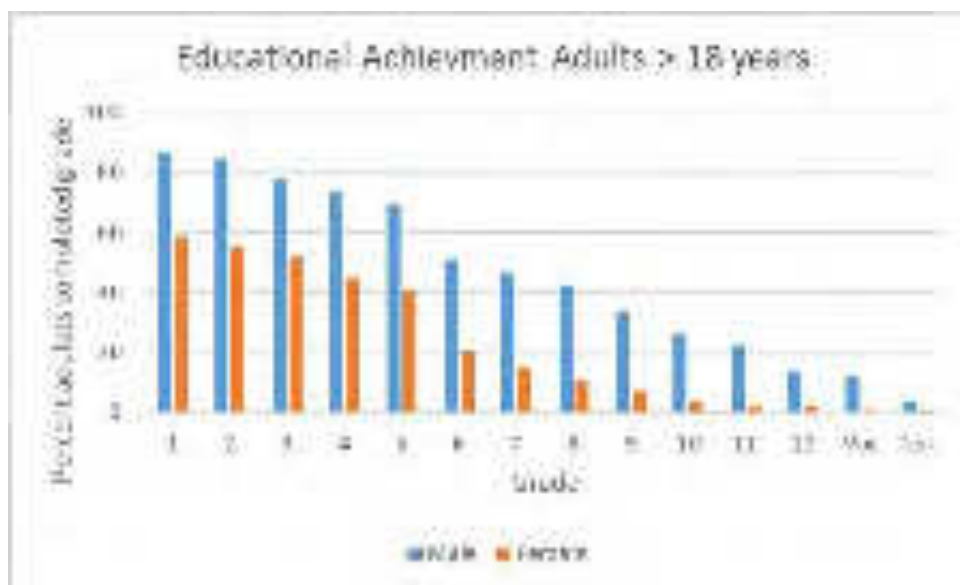


Figure 6 Educational achievement of adults (>=18 years). Primary school includes grades 1-5.

Age Group (years)	MALE		FEMALE		TOTAL	
	Mean	Se	Mean	Se	Mean	Se
20-29	8.9	0.3	5	0.2	6.8	0.2
30-39	6.6	0.4	2.8	0.3	4.8	0.3
40-49	5	0.5	1.5	0.2	3.1	0.3
50-59	4.5	0.5	1.1	0.3	2.7	0.3
60+	2.8	0.5	0.1	0	1.4	0.3

Table 16 Mean Years of formal education by age and gender (Source: Baseline Socio Economic Survey, 2014)

Village	Male (years formal education)		Female (years formal education)		TOTAL (years formal education)	
	Mean	Se	Mean	Se	Mean	Se
Houaypamom	4.8	0.5	1.8	0.3	3.3	0.3
Sopphuane	5.8	0.5	1.9	0.3	3.7	0.3
Namyouak	7	0.3	3.2	0.2	5	0.2
Sopyouak	6.8	0.3	3.3	0.3	4.9	0.2

Table 17 Mean years of formal education by village (Source: Baseline Socio Economic Survey, 2014)

83. There is a significant difference in Lao language proficiency by age and gender with older people and particularly older women having the lowest fluency (Table 18). There is also a significant difference in fluency between villages (males, females, and combined), with Sopphuane having the lowest levels of fluency (Table 19). Overall 72% of adult women speak Lao compared to 88% of men.

Age Group (years)	Male	Female	All
10-19	80%	80%	80%
20-29	95%	80%	87%
30-39	93%	69%	81%
40-49	90%	57%	72%
50-59	94%	53%	73%
60+	84%	48%	66%
Total	88%	72%	80%

Table 18 Lao fluency by age and gender (Source: Baseline Socio Economic Survey, 2014)

Village	Male	Female	All
Houaypamom	84%	62%	73%
Sopphuane	72%	51%	61%
Sopyouak	93%	83%	88%
Namyouak	90%	73%	82%
Total	88%	72%	80%

Table 19 Lao fluency by village and gender (Source: Baseline Socio Economic Survey, 2014)

84. Adult literacy is correlated with age, gender and village. (Table 20 and Table 21). Education and literacy are generally lower for women: only 26% of adult women in 2LR villages are fully literate compared to 62% of men. The percentage of literacy is particularly low for older women (>40years). Sopphuane has lowest literacy levels for both males and female adults: overall only 28% of adults are literate, with 48% of men and only 9% of women being fully literate.

Age Group (years)	Male	Female	All
20-29	81%	47%	63%
30-39	62%	23%	43%
40-49	52%	12%	31%
50-59	55%	15%	35%
60+	29%	0%	14%
Total	62%	26%	44%

Table 20 Literacy by age and gender for Zone 2LR (Source: Baseline Socio Economic Survey, 2014)

Village	Male	Female	All
Houaypamom	46%	13%	30%
Sopphuane	48%	9%	28%
Namyouak	64%	32%	48%
Sopyouak	72%	31%	50%
Total	62%	26%	44%

Table 21 Literacy by village and gender for Zone 2LR (Source: Baseline Socio Economic Survey, 2014)

85. The Project has already started adult literacy classes in Zone 2LR in response to an expressed desire from the villages to improve adult literacy (see section 9.4.4).

3.8 Diet and Nutrition

86. The nutritional status of a person is a function of the nature and quantity of food intake (diet), the levels and types of diseases and infections, lifestyle, calorific requirements of the person, reproductive status and history, and the ability of the person to assimilate and absorb nutrients.
87. Poor nutritional status (low nutrition) may have an injurious impact on health, as can some pre- and post-birth customary practices, causing deficiency diseases such as blindness, anaemia, scurvy, osteoporosis, preterm birth, stillbirth, poor intellectual development as well as reduced growth (stunting). Poor diet (excess consumption) may also result in health-threatening conditions like wasting, obesity and metabolic syndrome and lead to common chronic systemic diseases as cardiovascular disease and diabetes. The combination of low nutrition and over consumption is an increasing problem in the developing world.
88. Estimated food intake per person in 2LR villages (Baseline Socio Economic Survey, 2014) appears relatively good with more than 18 kg of rice and about 25 kg of staples consumed per person per month and a total intake of nearly 5 kg of meat and fish/person/month (This is total weight and includes non-edible parts and rice/staples provided to animals).

Village		Per Capita Food Consumption per month				
		Total Rice (kg)	Total Staples (kg)	Fish (kg)	Meat (kg)	Poultry (birds)
Houaypamom	mean	18.4	23.6	4.5	1.6	1.4
	se (mean)	1.0	1.3	0.6	0.2	0.2
Sopphuane	mean	19.1	23.8	3.9	1.8	1.7
	se (mean)	0.9	1.3	0.4	0.2	0.2
Namyouak	mean	19.4	26.0	3.6	1.9	1.8
	se (mean)	0.5	0.8	0.2	0.1	0.2
Sopyouak	mean	18.2	23.9	4.0	1.5	1.9
	se (mean)	0.5	0.8	0.3	0.1	0.1
Total	mean	18.8	24.6	3.9	1.7	1.8
	se (mean)	0.3	0.5	0.2	0.1	0.1

Table 22 Per capita food consumption for Zone 2LR (Source: Baseline Socio Economic Survey, 2014)

89. Fish consumption in Zone 2LR is high – nearly 4 kg/person/month and is the highest of all zones (see Table 23). These data underline the critical importance of fish in diet (and hence imputed income).
90. Per capita Meat consumption is also high (1.7kg /month) – slightly above average for whole area (1.5kg/month) (note this is a minimum and does not include poultry which was counted by the bird rather than by kilograms which are more difficult to estimate).

ZONE	Fish Consumption		Meat Consumption	
	Kg/person/ month		Kg/person/ month	
	Mean	Se	Mean	Se
Z1 Catchment	1.5	0.1	1.1	0.1
Z2 Upper Reservoir	1.8	0.1	1.4	0.1
Z2 Lower Reservoir	3.9	0.2	1.7	0.1
Reference Village 1	1.3	0.1	0.6	0.1
Z3 Hatsaykham	2.2	0.3	2.8	0.3
Z4 Downstream	2.7	0.2	1.4	0.1
Z5 Hosts	3.1	0.3	2.1	0.2
Reference Village 2	3.0	0.2	1.5	0.1

Table 23 Fish and meat consumption for all zones (Source: Baseline Socio Economic Survey, 2014)

91. The 2014 Health Survey used 2 simple indicators of the nutritional status of the 2LR population:
1. Child anthropometric measurements and
 2. Anaemia levels amongst women of child bearing age.
92. Stunting (low height for age) is a primary manifestation of long term / chronic malnutrition and recurrent infections, such as diarrhoea and helminthiasis (parasitic infections), in early childhood. Anaemia is low levels of red blood cells due to insufficient iron. It causes tiredness, inability to work and affects child development. It is caused by insufficient iron intake (diet), loss of blood, and parasite infections.
93. The baseline health survey for 2LR shows that the apparently adequate levels of food consumption are not translated into health outcomes. Child stunting and anaemia in women are high but close to the overall average for the socio-economic survey. High levels of child stunting (45%) and anaemia in 2LR women (29%) and particularly in Houaypamom (50%) are likely to be the result of a combination of the historical use of unsafe water supply (Houaypamom uses only surface water in dry season), no household sanitation, open defecation and poor hygiene leading to high rates of diarrhoea and parasitic infections, in turn contributing to poor overall nutritional status. Other factors that may be important are lack of access to health services, inequitable distribution of food within the household (women and children), significant drudgery workloads, as well as early and frequent pregnancies for women.

Name	Anaemia (women 25-45yrs)*	Stunting children < 5 years	Condom use (women 25-45yrs)
Houaypamom	50%	48%	0%
Soppuane	17%	35%	0%
Sopyouak	25%	46%	13%
Namyouak	28%	50%	4%
Total	29%	45%	6%

Table 24 Nutritional indicators and condom use for 2LR villages (Source: Baseline Health Survey, 2014)

94. Contraceptive use (6%) is very low compared to the overall average for the socio-economic survey (40%). Population growth rate amongst the Hmong population is likely to be high and presents a challenge for the sustainability of the resettlement village.

3.9 Health and Health Services

95. Most of the people in these 4 villages practice animism, so whenever anyone gets sick or has other health problems, they often seek treatment by traditional animist practices or medicines. There is only one health centre at Ban Sopyouak. The Health staff in the health centre are Hmong and from Ban Sopyouak. Villagers with more serious health conditions have to travel to the district centre at Ban Phalaveck in Hom district, where there is a district hospital (with the majority of the hospital staff being Hmong), or to a major hospital at Vientiane. The trip to Ban Phalaveck takes several hours by car and during rainy season the road may be impassable.
96. The 2014 Baseline Socio-Economic Survey provides some information on treatment seeking behaviour and health access. Health services utilised varies greatly between villages. Houaypamom, accessible only by boat, has the lowest rate of seeking health treatment, Sopyouak has the highest.

Village	Health issues disrupt normal activities	Seek treatment if ill
Houaypamom	14%	90%
Namyouak	17%	94%
Sopphuane	16%	99%
Sopyouak	23%	99%
Total	18%	96%

Table 25 Seeking treatment if ill (Source: Baseline Socio-Economic Survey, 2014)

97. Zone 2LR villages use various health facilities for seeking treatment (Table 26). There is clearly an opportunity effect with Sopyouak villagers making a high use of Public hospital/clinic (the Health Centre) in Sopyouak compared to the other villages.

	Houaypamom	Sopphuane	Sopyouak	Namyouak	Total
Public hospital/Clinic	49%	47%	70%	42%	55%
Pharmacy/Shop	40%	42%	30%	47%	39%
Village Health Volunteer	7%	7%	9%	12%	10%
Private clinic/doctor	7%	1%	1%	4%	3%
Traditional Healer	5%	3%	1%	3%	3%
Mobile Clinic/MCH	2%	0%	1%	3%	2%
Other	0%	8%	0%	1%	2%
Total	110%	109%	113%	112%	11%2

Table 26 Health facilities used by 2LR villages (Source: Baseline Socio-Economic Survey, 2014)

98. Table 27 lists the health issues recorded by the Sopyouak Health Centre during 2015. Angina⁴, gastritis, diarrhoea, and cold/flu diseases are the most prevalent health complaints reported.

⁴ Angina pectoris, commonly known as angina, is the sensation of chest pain, pressure, or squeezing, often due to ischemia of the heart muscle from obstruction or spasm of the coronary arteries. [1] While angina pectoris can derive from anemia, abnormal heart rhythms and heart failure, its main cause is coronary artery disease. The high incidence of angina suggests over-diagnosis.

Health Complaint	Namyouak		Sopyouak		Soppuane		Houaypamom	
	Patients	Percent village population	Patients	Percent village population	Patients	Percent village population	Patients	Percent village Population
Angina	25	1.94%	89	8.07%	20	4.04%	14	0.50%
Cold/Flu	58	4.50%	28	2.54%	10	2.02%	5	0%
Diarrhoea	4	0.31%	40	3.62%	15	3.03%	5	1.60%
Gastritis	24	1.80%	5	0.45%	1	0%	0	0%
Eye pain	5	0.38%	10	0.90%	0	0%	0	0%
Neuralgia	5	0.38%	8	0.72%	0	0%	0	0%
Vertigo	5	0.38%	2	0.28%	1	0.20%	0	0%
Fatigue	2	0.15%	5	0.45%	0	0%	1	0.32%
Ear infection	0	0%	8	0.72%	0	0%	0	0%
Bronchitis	0	0%	6	0.54%	0	0%	0	0%
Dysentery	2	0.15%	13	1%	0	0%	0	0%
Back pain	2	0.15%	2	0.18%	1	0.20%	0	0%
Vaginal discharge*	1	0.07%	2	0.18%	0	0%	1	0.32%
Burn	0	0%	2	0.18%	0	0%	0	0%
Rheumatism	0	0%	1	0.09%	0	0%	0	0%
Button	0	0	0	0	0	0	0	0
Wound	0	0%	0	0%	0	0%	0	0%
Other	9	0.70%	66	5.98%	6	1.2%	1	0.32%
Population checked	142	11.05%	289	26.22%	54	11.11%	27	8.68%
Total population	1,285		1,102		495		311	

* Incidence of vaginal discharge is for total number of females.

Table 27 Summary of outpatients' health data from January to October 2015 in Sopyouak Health Centre (Source: Sopyouak Health Centre)

3.10 Gender Issues and Status of Women

99. Gender dimensions of concern in the project area which also apply to Zone 2LR include:

- land rights; most land and housing are formally or informally under male control and patrilineal heritage line. This is addressed by all replacement land and housing registered and titled in the joint names of husband and wife. Where a man has more than one wife, the second family will be separately titled in the name of the wife and a male family member of her choice (e.g. eldest son)
- financial management; where compensation money may be handed only to a male household head, there is higher risk of poor subsequent investment. The Project has instituted bank accounts in the joint names of husband and wife, with prior financial training provided to understand how to deposit and withdraw funds. All acknowledgement of receipts or withdrawals must have the joint signatures or thumbprints of both husband and wife. This compensation procedure was instituted for roads and TL land acquisition, and has proved very popular, particularly with women
- hard work; women have multiple responsibilities taking care of the house, cooking, caring for the

sick, elderly and children, gender-specific agricultural tasks (e.g. weeding, hoeing, fetching water, land clearance, harvesting, etc.), and income generating work. Replacement housing will integrate labour saving devices such as accessible domestic water supply, electricity, etc. to reduce the drudgery component of these responsibilities

- health; reproductive and maternal health is poor with comparatively high levels of anaemia, and continued laborious work throughout pregnancy. Sanitation is poor, and improved water and sanitation facilities will be provided in replacement housing, and training given in their use. The health program is outlined in more detail in the SDP.
 - education; less formal education due to early inclusion into domestic work, and less ability to understand written documents particularly if the first language is not Lao. Improved educational facilities will be provided in Houay Soup, with permanent teacher presence and teacher housing. Adult literacy and basic numeracy classes, particularly for women, will also be implemented for all those interested to participate.
 - communication; typically external agencies and government extension staff tend to talk only to male village representatives and in Lao language, especially where the culture is patriarchal and patrilineal, as with Hmong. The Project has made particular effort to employ Hmong men and women as fieldworkers. All communication with 2LR PAPs is in Hmong language. Women's meetings are held separately from those of men, and women's preferences for various types of training are given precedence
 - ethnicity; ethnic minority women are proportionately less familiar with Lao language and therefore less likely to be informed of their rights. See above point.
100. 2LR Hmong communities are strongly patriarchal. Family members are under the authority and direction of the male-headed household, usually the oldest male. Sons will automatically inherit family property and all other assets and are often the ones to receive a formal education. Hmong women normally do not represent the family status and may not be included in meetings. Even if they participate, women rarely voice their opinions. Both a Hmong man and woman are considered adults only after they have produced children. Hmong woman only gain prestige in the family by giving birth to a boy.
101. Separate consultation meetings with female villagers resulted in the following gender issues being identified:
- A high percentage of females have no formal education and many did not complete primary school
 - Early marriage (15 to 16 years) and early and frequent pregnancies
 - High demand of physical labour including raising of children and care of livestock, as well as most housework and tending gardens
 - Informally no property rights for females recognized
 - No traditional right to divorce for females
 - Husbands generally as lone decision makers;
 - Few opportunities for financial independence or to learn new livelihood activities such as weaving, tailoring, and food preservation techniques
 - Health problems such as diarrhoea, womb pain, body ache; distance to Hom district hospital is a further health-related issue and previous access available only during the dry season

3.11 *Information and Services*

102. Zone 2LR has recently (2015) gained direct access to national mobile phone networks in Namyouak and Sopyouak. Houaypamom and Sopphuane remain without coverage. Mobile phone ownership is already high, especially in Sopyouak and Namyouak with easier connection (Table 28). Other electrical asset ownership is already significant although there is no grid connection. It is expected that 2LR households are likely to rapidly accumulate a range of electrical assets once provided with grid connection in Houay Soup.
103. Not surprisingly Houaypamom has a high ownership of boat and boat engines and Namyouak and Sopyouak, with significant paddy fields areas, have a higher ownership of hand tractors.

	Houaypamom	Sopphuane	Sopyouak	Namyouak	Total
Mobile phones/ other phones	67%	62%	92%	92%	85%
Motorcycles /scooters	74%	94%	84%	83%	84%
DVD Player	28%	32%	37%	36%	35%
Tape players/ CD players/ radio	42%	40%	33%	34%	35%
Hand Tractor	12%	13%	31%	37%	29%
Wardrobe	14%	22%	30%	29%	27%
Boat	63%	45%	21%	8%	24%
Bicycles	7%	10%	11%	9%	10%
Boat motor	72%	51%	11%	1%	19%
Cameras, video cameras	2%	6%	10%	10%	9%
Car or truck	0%	5%	8%	5%	6%
Televisions	7%	9%	7%	9%	8%
Generator	7%	10%	5%	9%	8%
Glass Fronted Cabinet	5%	1%	2%	2%	2%
Satellite dish	7%	1%	2%	2%	2%
Couch	0%	0%	1%	2%	1%
Refrigerators /freezers	0%	1%	1%	1%	1%
Electric rice cooker	0%	4%	1%	1%	1%
Water Dispenser	0%	0%	0%	0%	0%
Washing Machines	0%	0%	0%	0%	0%
Water Pump	0%	1%	0%	1%	0%

Table 28 Ownership of assets by households in 2LR villages (Source: 2014 Baseline Socio- Economic Survey)

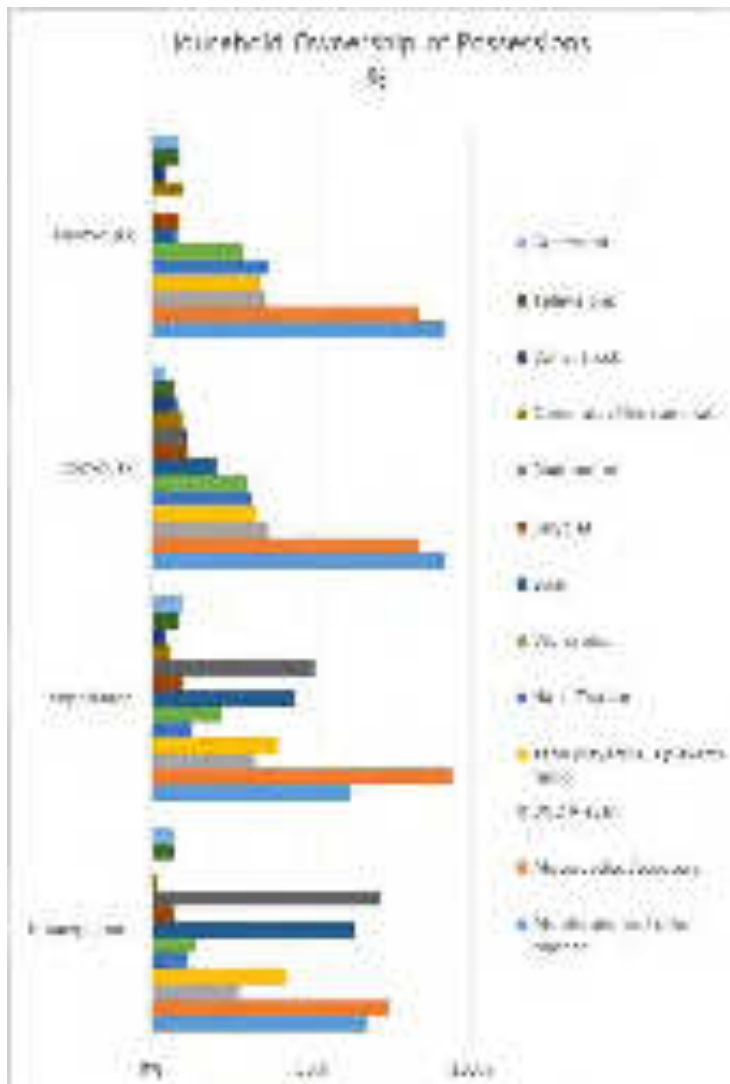


Figure 7 Ownership of assets by households in 2LR villages (Source: 2014 Baseline Socio- Economic Survey)

3.12 Income

104. Total income is expressed as income per person per month for the household. Total income is the sum of income from all sources for all household members; it includes wages and salaries, pensions, interest, transfers, entrepreneurial income from household businesses, and income from agriculture, fisheries and forest. Total income includes both cash income and the imputed value of in-kind income (the value of goods produced and consumed directly by the household, and the value of in-kind payments for work, e.g. food).
105. The 2014 Baseline Socio Economic Survey found households in 2LR reported a mean per capita income of 1.07 million LAK/month, with approximately 55% of this income occurring as cash income. There are significant differences between villages and it is also worth noting the importance of fishing in the income with on the contrary a rather low off-farm income. Fishing represents also an important part of cash income in Houaypamom and Sopphuane.

	Houaypamom		Sopphuane		Namyouak		Sopyouak		Total	
	Mean	Se	Mean	Se	Mean	Se	Mean	Se	Mean	Se
Employment	41,000	14,000	66,000	17,000	100,000	19,000	104,000	15,000	90,000	10,000
Business	18,000	14,000	18,000	9,000	38,000	11,000	58,000	22,000	40,000	9,000
Other	12,000	4,000	19,000	7,000	10,000	2,000	41,000	17,000	23,000	6,000
Agriculture	245,000	25,000	279,000	27,000	267,000	20,000	365,000	23,000	302,000	13,000
Livestock	34,000	11,000	52,000	11,000	95,000	11,000	126,000	17,000	93,000	8,000
Forest	69,000	21,000	106,000	21,000	106,000	16,000	204,000	32,000	138,000	14,000
Hunting	36,000	7,000	63,000	13,000	38,000	6,000	30,000	4,000	39,000	4,000
Fishing	282,000	63,000	455,000	86,000	325,000	36,000	320,000	36,000	341,000	24,000
TOTAL	736,000	72,000	1,057,000	116,000	978,000	63,000	1,250,000	81,000	1,066,000	43,000
Off farm income	71,000	21,000	103,000	19,000	148,000	22,000	204,000	30,000	153,000	14,000

Table 29 Per capita total income (LAK/month) in 2LR villages (Source: 2014 Baseline Socio- Economic Survey)

	Houaypamom	Sopphuane	Namyouak	Sopyouak	Total
	Mean	Mean	Mean	Mean	Mean
Employment	6%	6%	10%	8%	8%
Business	2%	2%	4%	5%	4%
Other	2%	2%	1%	3%	2%
Agriculture	33%	26%	27%	29%	28%
Livestock	5%	5%	10%	10%	9%
Forest	9%	10%	11%	16%	13%
Hunting	5%	6%	4%	2%	4%
Fishing	38%	43%	33%	26%	32%
TOTAL	100%	100%	100%	100%	100%
Off farm income	10%	10%	15%	16%	14%

Table 30 Total income (in percentage) in 2LR villages (Source: 2014 Baseline Socio- Economic Survey)

106. Household incomes are not equably distributed, and typically a small percentage of the population have much higher incomes than the rest. This is also the case for 2LR, where more than 50% of households have per capita incomes of less than 800,000 LAK per month and 11% of households have declared incomes > 2.0 million LAK / month (Table 31 and Figure 8).

Per capita income (million LAK/month)	Houaypamom	Sopphuane	Namyouak	Sopyouak	Total
0-0.4	28%	25%	21%	17%	21%
0.4- 0.8	40%	27%	36%	24%	30%
0.8- 1.2	19%	18%	18%	20%	19%
1.2- 1.6	9%	13%	10%	11%	11%
1.6- 2.0	2%	5%	6%	11%	7%
2.0- 2.4	0%	5%	1%	7%	3%
2.4- 2.8	2%	3%	2%	1%	2%
3.2- 3.6	0%	0%	2%	3%	2%
3.6- 4.2	0%	1%	2%	3%	2%
>4.2	0%	3%	2%	3%	2%
Total n	100%	100%	100%	100%	100%
Total HHs	43	77	181	168	469

Table 31 Income Distribution in 2LR (Source: Baseline Socio Economic Survey, 2014)

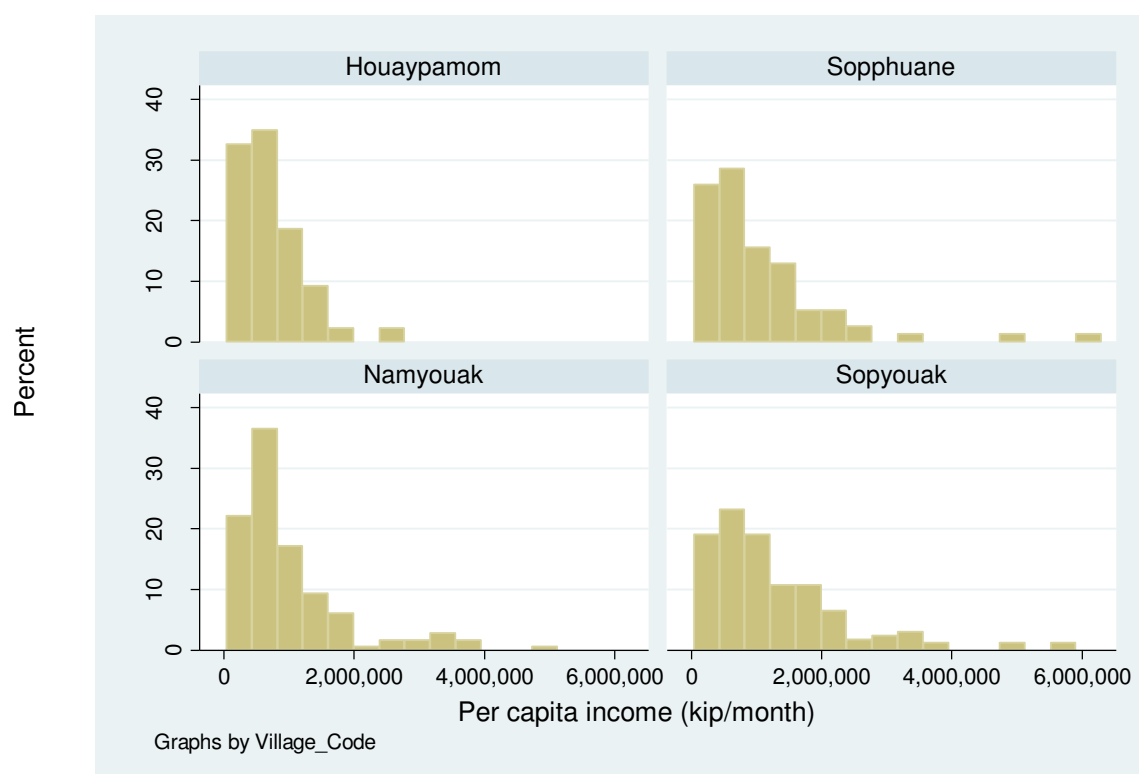


Figure 8 Income Distribution in 2LR (Source: Baseline Socio Economic Survey, 2014)

Rural households in the Lao PDR typically utilize a wide variety of livelihoods, with income diversity often adding to a household’s resilience, particularly for poor households.

There are small differences in the average number of income sources for households between the 4 villages of Zone 2LR. Households in Sopyouak reported an average of 5.4 ± 0.1 income sources whereas the other villages report 5.0-5.2 sources. A small proportion of households have a limited range of household incomes: 7% reported 3 income sources or less, and 24% reported 4 income sources or less.

No of income sources declared in the last year	Houaypamom	Sopphuane	Namyouak	Sopyouak	TOTAL
2	0%	3%	1%	0%	1%
3	7%	10%	4%	5%	6%
4	28%	16%	19%	13%	17%
5	26%	38%	36%	33%	34%
6	28%	25%	31%	37%	32%
7	12%	6%	8%	12%	9%
8	0%	3%	1%	1%	1%
Total	100%	100%	100%	100%	100%
Mean number of income sources	5.1 ± 0.2	5.0 ± 0.1	5.2 ± 0.1	5.4 ± 0.1	5.2 ± 0.1
Total (households)	43	77	181	168	469

Table 32 Diversity of income sources in Zone 2LR. The survey identified 8 possible incomes sources (Employment, Business, Fishing, Agriculture, Livestock, Forests, Hunting and Other)

3.13 Agriculture and Horticulture Land Use

107. A total of 75% of adults over the age of 18 years in 2LR (with up to 88% in Houaypamom) identified their main occupation as farmer. Students are the second most common occupation (adults > 15 years)

and only 5% identified themselves as government workers.

108. Land ownership and land use of the four villages in Zone 2LR is presented in Table 33. Privately held lands account for approximately one third of the total land area of the communities. These privately held lands are almost all agricultural. About 7% of the privately held lands in all four communities are paddy fields and 14 % of the privately held lands are upland rice fields.

No.	Village/ Land type	Developed land with planted grass and fence (Ha)	Digging Fish pond/Fish pond with stream (Ha)	Fallow rice field (Ha)	Garden land (Ha)	Garden land for industrial plantation (Ha)	Land at the edge of paddy rice field (Ha)	Land development with natural glass and fence (Ha)	Plowed upland field (Ha)	Rain-fed rice paddy rice field (Ha)	Residential/ Housing land (Ha)	Rotational shifting cultivation (Ha)	Total Area (Ha)
1	Houaypamom	10.19	0.31	1.62	38.15	0.31	9.85	152.11	0.61	20.16	8.21	60.86	302.36
2	Namyouak	13.86	2.70	9.29	73.35	14.07	31.41	141.89		62.95	20.54	16.47	386.53
3	Sopphuane	-	2.20	6.80	98.57	10.25	14.72	119.86		31.56	11.01	99.36	394.33
4	Sopyouak	67.08	6.82	30.92	196.08	134.15	83.52	601.16	0.37	67.00	29.30	181.41	1,397.81
	Total	91.13	12.02	48.61	406.15	158.79	139.50	1,015.02	0.99	181.66	69.06	358.11	2,481.03

Table 33 Land acquisition of 2LR Villages, in ha. (Source: Asset registration 2016)

109. All 4 villages have some common/communal property (Table 34). All 4 villages have cemetery lands and also community grasslands.
110. In all 4 communities, 56% of the total forest land is community managed production forest, with the largest proportion of such forest in Ban Sopyouak and Namyouak, (nearly 64% in both), community managed reserved forest accounts 20% of the total forest area.

Item	Village				Total
	Sopphuane	Sopyouak	Namyouak	Houaypamom	
2. Public Properties					
2.1 School Land	0.8	1.2	1.6	0.5	4.1
2.2 Temple Land	0.0	0.0	0.0	0.0	0
2.3 Village Office Land	0.0	0.0	0.0	0.0	0
2.4 Cemetery Land	1.9	3.6	3.5	1.5	10.5
2.5 Village Health Centre Land	0	0	0	0	0
2.6 Community Grass Land	24.0	125.0	97.0	17.0	263
Total Public Land	26.7	129.8	102.1	19.0	277.6
3. Forest and others					
3.1 Production forest	483.0	750.0	852.0	425.0	2,510.0
3.2 Reserved forest	126.0	311.0	336.0	121.0	894.0
3.3 Other forest					
Protection Forest					
Un-stocked forest	104.0	210.0	218.0	81.0	613.0
Buffer zone	39.0	198.0	210.0	30.0	477.0
Total Forest Land	752.0	1,469.0	1,616.0	657.0	4,494.0
Total Land					7,507.96

Table 34 Land Use Patterns of Villages in Zone 2LR – community land, in ha.

(Source: Field Survey 2008)

111. Agriculture land use in the project area is currently based primarily upon rain fed rice cultivation, other field crop cultivation, livestock rearing and vegetable gardens. The size of family land holdings varies per land type and village. Holdings in Sopyouak tend to be larger than in the other communities (see Table 35).

No	Land plot size of Rainfed Paddy Rice Field	No. of HH/Village				Total
		Houaypamom	Namyouak	Sopphuane	Sopyouak	
1	<0.8 ha.	16	41	16	20	93
2	0.8 - 1.6 ha.	7	33	8	31	79
3	1.7 - 2.4 ha.	2	3	4	10	19
4	More than 2.4 ha			2	1	3
Total:		25	77	30	62	194

Table 35 Number of households with rainfed paddy rice fields land plots by 4 category of size of (Asset registration 2016)

No	Land plot size of Rotational Shifting Cultivation	No. of HH/Village				Total
		Houaypamom	Namyouak	Sopphuane	Sopyouak	
1	<0.8 ha.	9	29	27	28	93
2	0.8 - 1.6 ha.	14	5	15	30	64
3	1.7 - 2.4 ha.	5	2	8	26	41
4	More than 2.4 ha	9		14	23	46
Total:		37	36	64	107	244

Table 36 Number of households with rotational shifting cultivation field plots by 4 category of size (Asset registration 2016).

112. Table 37 presents the area of rice cultivation in each community, by each type of rice field: paddy and swidden or upland fields. The ratio of paddy fields to upland rice fields tend to be about 1 to 1 in Ban Houaypamom, 3 to 4 in Ban Sopphuane, 4 to 3 in Ban Sopyouak and 2 to 3 in Ban Namyouak.

No.	Village	Rain-fed rice paddy rice field (Ha)	Rain-fed rice paddy rice field /Total Cultivation Area (%)	Rotational shifting cultivation (Ha)	Rotational shifting cultivation / Total Cultivation Area (%)
1	Houaypamom	20.16	6.67%	60.86	20.13%
2	Namyouak	62.95	16.29%	16.47	4.26%
3	Sopphuane	31.56	8.00%	99.36	25.20%
4	Sopyouak	67.00	4.79%	181.41	12.98%
Total		181.66	7.32%	358.11	14.43%

Table 37 Area of Rice Cultivation of each Type and Area of Rice Cultivation in Comparison to Other Agricultural Activities (Source: Asset registration 2016)

113. The average yields for rice range from a low of 2.1 ton/ha for upland rice in swidden fields in Ban Sopphuane to a high of 3.8 ton/ha for lowland rice in rain fed paddy fields in Ban Houaypamom. Differences in yields among the communities are rather slight (Table 38).

Village	Paddy Cultivation (ton/ha)	Swidden Cultivation (ton/ha)
Houaypamom	2.6 - 3.8	2.3 - 2.7
Sopphuane	2.4 - 3.7	2.1 - 2.7
Sopyouak	2.9 - 3.6	2.2 - 3.1
Namyouak	2.8 - 3.5	2.4 - 3.0
Average	2.7 - 3.7	2.2 - 2.9

Table 38 Comparison Yield of Rice Production (Source: Field Survey 2008)

114. The scope of land acquisition is outlined in the next chapter. PAPs with agricultural land which is situated above FSL (not impacted) will be provided with a choice to either continue to cultivate their land or request the project to compensate these lands (see Chapter 4.2 for further details).

3.14 Rice Sufficiency

115. An assessment of rice-self-sufficiency in 2011 showed that most households are able to produce enough rice to meet their needs for the year. Between 3 to 14% of the villagers have shortfalls of self-produced rice for up to 2 - 4 months of the year, as shown in Table 39 below. These households either buy or exchange in kind the additional rice they need.

Village	Number of Households	Sufficient Year Round	Insufficient for 2 to 4 months	Insufficient for 5 to 6 months	Insufficient for 7 to 8 months
Houaypamom	37	86.5%	13.5%	0%	0%
Sopphuane	58	87.9%	8.6%	3.44%	0%
Sopyouak	126	94.4%	3.2%	0%	2.38%
Namyouak	163	92.6%	7.4%	0%	0%

Table 39 Rice Sufficiency Production Rates of Households on a Yearly Basis
(Source: Field Survey 2011)

116. The Baseline Socio Economic Survey was undertaken in October-November 2014, just prior to the annual rice harvest. At that time, households in 2LR reported eating plain rice 6.1 to 6.8 days/week (min and max village mean values) (Table 40).

Food type	Frequency of Food Consumption (days/week)			
	Houaypamom	Sopphuane	Namyouak	Sopyouak
Plain Rice consumption	6.8	6.8	6.5	6.1
Fish	4.5	4.6	4.3	4.8
Pork	1.2	1.1	1.3	1.0
Poultry	1.7	1.4	1.8	2.0
Wild birds	0.9	1.1	1.1	1.1
Wild game	1.3	1.6	1.4	1.1

Table 40 Mean consumption days/week for key food (Source: 2014 Baseline Socio-Economic Survey)

117. The Project's vulnerability officer regularly monitors claims of rice insufficiency to understand which households are most poor and vulnerable. In the period immediately following relocation, food insecurity will not be an immediate issue due to the planned Rice Supplement Program. However, such a program is not a long term sustainable option; therefore the incidence and causes of any food insufficiency will be closely monitored and addressed through the livelihood support program.

3.15 Livestock

118. Almost all households raise a variety of animals. Chickens, ducks and pigs roam around the houses. Some larger pigs are kept in pens. Other large animals such as water buffaloes, cows and goats are usually left to roam or herded during the day before being brought back to stay near the house at night. Grazing areas are increasingly fenced. The animals are raised both for domestic consumption and for sale. Smaller livestock are an important source of protein.
119. Livestock is an important socioeconomic factor with most households owning some animals, and some

households having a large number of large animals. Table 41 provides an overview.

120. While livestock ownership is common within the villages, income⁵ from this source is relatively small, providing only 9% of total income and 13% of cash income. Livestock do, however, provide an important source of savings. Table 43 shows that large livestock (buffalo and cattle) is the principle component of animal value in 2LR. Cows are the most important in terms of total value with an average of 6.2 animals per household providing an average value of 34 million kip/household. Cattle are the next most important in terms of value, though more important in terms of numbers.

Village name	Buffalo	Cow	Pig	Chicken	Duck	Large Livestock
Houaypamom	7%	60%	58%	100%	37	60
Sopphuane	16%	65%	70%	88%	21	68
Namyouak	33%	86%	83%	94	38	90
Sopyouak	45%	79%	82%	95	29	85
Total	32%	78%	78%	94	32	81

Table 41 Percent households with livestock ownership 2LR (Source: Baseline Socio Economic Survey, 2014)

Village name	Buffalo	Cow	Pig	Chicken	Duck	Large Livestock
Houaypamom	0.3	2.4	2.3	28.3	3.4	2.7
Sopphuane	0.7	3.2	4.7	18.6	1.3	3.9
Namyouak	1.8	7.7	4.7	28.9	2.7	9.4
Sopyouak	2.4	6.9	3.5	32.9	2.7	9.3
Total	1.7	6.2	4	28.5	2.5	7.9

Table 42 Mean number of animals owned per household. Chicken ownership is a cropped mean to account for extreme outliers. (Source: Baseline Socio Economic Survey, 2014)

Village name	Buffalo	Cow	Pig	Chicken	Duck	Total	Total Value (x1000 LAK)
Houaypamom	11%	73%	7%	8%	1%	100%	2,400±400
Sopphuane	22%	61%	12%	4%	0%	100%	3,600±500
Namyouak	25%	67%	5%	3%	0%	100%	8,600±600
Sopyouak	34%	58%	3%	3%	0%	100%	8,800±700
Total	28%	63%	5%	3%	0%	100%	7,300±400

Table 43 Per capita value of livestock. Chicken ownership is a cropped mean to account for extreme outliers. (Source: Baseline Socio Economic Survey, 2014)

⁵ The cash value of animal and meat sold plus the imputed value of self-consumption)



Figure 9 Poultry promotion at 2LR

3.16 Fisheries

121. The Nam Ngiep River as well as larger tributaries and smaller streams are an important fisheries resource, with almost every meal including some fish, either fresh or preserved.
122. Fisheries are an essential element of nutrition for people from 2LR. Analysis of the 2014 Baseline Socio Economic Survey shows that households in 2LR consume fresh fish an average of 4.3 to 4.8 days/ week depending on the village (Table 40), with a total consumption of about 3.9 kg/per person/month (Table 23).
123. The Baseline Survey found total income (cash and imputed) from fishing was approximately 340,000 kip/person/ month which constitutes 32% of total income. Cash income from fisheries amounted to 25% of total income (Table 31).
124. As elsewhere in the area, river fishing is the task of the men. They use gill net, hook and line and cast nets as the three top gears. While most of the fish they catch is for home consumption, some surplus is on occasion sold at the market. Some villagers also mention that they sell dried fish along the road. In low laying areas women and older persons often contribute significantly to the household fishing, through the use of scoop nets in areas where they can wade, to scoop small fry and collect aquatic products such as snails, frogs, etc. However, in Zone 2LR, there is limited suitable habitat (wetlands) available for this kind of fishing, which can be seen in the fishing gear used and the participation of women in fishing days. The negative impact of no longer being able to do this kind of fishing is therefore limited after resettlement.
125. The Project implements a long term fish catch monitoring program to complement this SES assessment and better understand seasonal variation in fisheries, fishing environments and fishing gears. The survey results will also be used to inform and monitor the Fisheries Co-Management Program for the reservoir. Fisheries development in the reservoir and fish capture program in constructed ponds will

be needed to offset the loss of the current fishing grounds.

3.17 Forest Utilization

126. Most households claim that forests are an important factor in their livelihoods. The Baseline Socio Economic Survey (2014) found that forest based incomes (NTFP, timber and hunting) provided a total per capita income of 177,000 kip/ month and constituted 17% of total income and 20% of cash income (refer to Table 30 and Table 31).
127. Villagers largely make use of the surrounding community forests. Most houses are still built from wood and bamboo from the forests and grasses from the fields. Food is cooked with firewood gathered from the forests. Many kinds of food, such as mushrooms, bamboo shoots, vegetables, and herbs are gathered from the forests, while women gather plants for dyeing cloth and for medicinal purposes.
128. Hunting is an important tradition in the communities as well as livelihood activity for people from 2LR, with men out of contact for days in the forest to hunting birds and animals. Villagers hunt, partly for own consumption and partly for sale. Hunting in 2LR is a continuing livelihood activity and the local shops sell ammunition for small guns. While it will be possible for hunters to return to non-inundated forests of 2LR they will also utilize new areas, crossing the mountain next to the resettlement site, within the new resettlement site and potentially over the river on the side of the host communities. Hunting will therefore have to be carefully regulated and managed to avoid resource conflicts.
129. Villagers plant fruit trees and other economic or commercial trees in the forests, including rubber trees in the last years and this trend is ongoing. The Project will undertake community tree plantation in allocated regeneration and protected forest areas of Houay Soup.
130. A number of commercial trees (rubber trees) planted by 2LR villagers above FSL will remain after reservoir impoundment and the Project plan to re-establish access to these plantations through the operation of a commercially operated boat service on the reservoir.
131. Commercial tree and rubber plantation in the resettlement village of Houay Soup are also a potential source of income in the future given the good road access to Houay Soup and the proximity to Paksan, a major trading centre.
132. The products from fruit trees are mostly for domestic consumption. During visits to local markets and markets in nearby towns, nearly all the fruits sold in the market were from the local forests. Commercially grown fruits tend to be imported from China or Thailand. Local fruit selling is very seasonally dependent.

3.18 Other Sources of Income

133. Household income in 2LR comes mainly from fisheries, agriculture (crops and livestock) and Forest resource (NTFP, timber and hunting). Employment and business income remain rather low (14% of total income with “other” and 26% of cash income) according to the 2014 Baseline Socio Economic Survey (see Table 30 and Table 31). Business income is difficult to estimate because of the variation in the nature of businesses and because most business are run almost entirely without record keeping.

3.19 Primary Production and Off-Farm Income

134. Income can be divided between primary production and off-farm income. Primary production

includes income from agriculture, livestock, forests and fishing. Off farm income includes employment, business income, and other income such as land rental, interest payments, and remittances. Primary production includes both cash income from sales and the imputed value of self-consumed production. Off-farm income is largely cash income. Off-farm income is an important method of reducing vulnerability and poverty but, in rural settings, is also highly dependent on the strength of farm sector.

135. As expected, primary production accounts for the majority of income contributing 86% of total income. Off-farm income accounts for only 14% of the total household income but is important to many households because of the cash income it provides (26% of total cash income, mostly from employment).

3.20 Household Expenditure and Consumption

136. Household consumption is the amount of goods and services consumed by a household. Household consumption has been pioneered by the World Bank Living Standards Measurement Studies program as the key indicator of poverty and household living standards since the program's inception in the 1980's. Household consumption, which includes cash expenditure and the imputed value of self-produced and consumed goods, has a number of important advantages as an indicator of household living standards and poverty, particularly in a developing country context. Advantages of a consumption based metric include:
- consumption has a direct relation to the total "utility" or welfare level of a household;
 - consumption is generally easier to measure than income, particularly in rural contexts where much of income is in the form of self-consumed goods that are difficult to value;
 - consumption is thought to be less temporally variable than income, as households use formal and informal borrowing and saving so that they can consume at a relatively constant rate despite fluctuations in income; and
 - households are thought to be less reluctant to share information about expenditure than income
137. In order to accurately reflect the wellbeing of a household, the construction of a consumption based indicator must account for the following:
- Not all consumption adds to wellbeing of the household
 - Consumption of durable items is spread over many years
 - Purchase of high values items may inappropriately bias consumption upwards
 - Goods and services produced and consumed by the family are not directly valued through a purchase
 - Consumption of some items may be supported by increasing debt.
138. A consumption aggregate does not include necessary expenditure / investments in income making activities (e.g. cost of seed, investment in fencing, purchase of livestock etc.) and generally uses an "annual use value" for major purchases. The use value of an item is equivalent to the annual write down of the value of the item. Thus the consumption aggregate does not include all expenditure and is not expected to balance exactly with income but does indicate the week to week well-being / standard of living of the household.
139. The 2014 Baseline Socio Economic Survey divided consumption into:
1. Food consumption, cash expenditure and the imputed value of self-produced food consumed by the household.

2. Consumables including clothes, footwear, personal items, phone, medical and educational expenses.
 3. Durable Items such as minor household goods and furniture; and
 4. Use value of major assets such as cars, motorcycles, major household items etc.
140. Mean per capita consumption in 2LR in late 2014 is estimated to be approximately 790,000 kip/month (Table 44 and Table 45). Food is the biggest source of consumption accounting for 69% of total consumption (Table 44 and Table 45). Cash expenditure on food accounts for 27% of total food consumption, though this value probably represents a maximum as the survey was undertaken in October/November 2014 just prior to harvest, when most households had already consumed their self-produced staples (rice, cassava etc.).
141. Houaypamom and Soppuane have the lowest cash expenditure on food but there is no significant difference in consumption between villages.
142. Cash expenditure amounts to 49% of total consumption, which is less than for Zone 3 (Hatsaykham). The percentage of consumption obtained by cash expenditure generally increases with increasing wealth, and conversely the proportion of food consumption in the total generally decreases with increasing wealth.

	Houaypamom		Sopphuane		Namyouak		Sopyouak		Total	
	mean	±se	mean	±se	mean	±se	mean	±se	mean	±se
Food (total)	572,000	±49,000	513,000	±34,000	549,000	±20,000	557,000	±22,000	548,000	±13,000
Food (cash)	116,000	±23,000	103,000	±17,000	160,000	±12,000	161,000	±13,000	147,000	±8,000
Consumables	160,000	±19,000	150,000	±35,000	168,000	±11,000	193,000	±18,000	173,000	±10,000
Durables	48,000	±16,000	60,000	±11,000	54,000	±7,000	75,000	±15,000	62,000	±6,000
Asset Use	3,000	±1,000	6,000	±3,000	4,000	±1,000	10,000	±4,000	7,000	±1,000
Total	783,000	±65,000	730,000	±59,000	776,000	±28,000	835,000	±45,000	790,000	±23,000

Table 44 Household consumption (LAK/person/month) in 2LR (Source: Baseline Socioeconomic Survey, 2014)

	Houaypamom		Sopphuane		Namyouak		Sopyouak		Total	
	mean	±se	mean	±se	mean	±se	mean	±se	mean	±se
Food	73%	±6%	70%	±5%	±71%	±3%	67%	±3%	69%	±2%
Cash Food	15%	±3%	14%	±2%	±21%	±2%	19%	±2%	19%	±1%
Consumables	20%	±2%	21%	±5%	±22%	±1%	23%	±2%	22%	±1%
Durables	6%	±2%	8%	±1%	±7%	±1%	9%	±2%	8%	±1%
Asset Use	0%	±0%	1%	±0%	±1%	±0%	1%	±0%	1%	±0%
Total	100%		100%		100%		100%		100%	

Table 45 Household consumption by village (by percentage of Total) in 2LR (Source: Baseline Socioeconomic Survey, 2014)

143. Household consumption is more normally distributed than income. The majority of households (77% in Sopyouak & Namyouak to 84% in Houaypamom) have per capita consumption rates of less than 1.0 million LAK/month (Table 46).

Per capita income (million LAK/month)	Houaypamom		Sopphuane		Sopyouak		Namyouak	
	Number of HHs	Percent	Number of HHs	Percent	Number of HHs	Percent	Number of HHs	Percent
0 - 0.5	9	21%	27	35%	32	19%	50	28%
0.5 - 1	27	63%	36	47%	97	58%	88	49%
1 - 1.5	4	9%	10	13%	27	16%	33	18%
1.5 - 2	1	2%	1	1%	5	3%	9	5%
2 - 2.5	2	5%	3	4%	7	4%	1	1%
Total	43	100%	77	100%	168	100%	181	100%

Table 46 Frequency distribution of household consumption in 2LR villages
(Source: Baseline Socio Economic Survey, 2014)

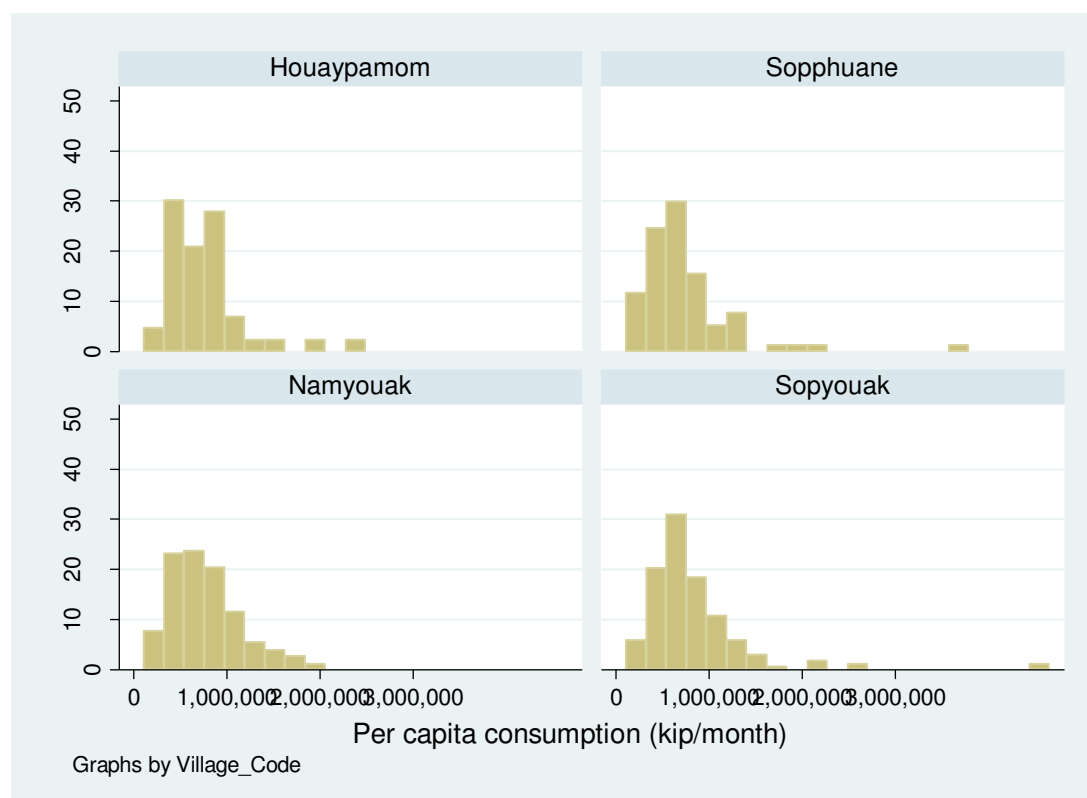


Figure 10: Distribution of Per Capita Consumption (Source: Baseline Socio Economic Survey, 2014)

144. The components of food consumption have also been estimated. Meat has the highest monetary value of monthly consumption, followed closely by staples and fish (Table 47).

	Houaypamom	Sopphuane	Namyouak	Sopyouak	Total	
	mean	mean	mean	mean	mean	se
Staples	115,000	125,000	124,000	124,000	123,000	4,000
Fish	102,000	153,000	104,000	110,000	114,000	10,000
Meat	105,000	125,000	128,000	127,000	125,000	5,000
Milk Eggs	8,000	10,000	20,000	25,000	19,000	1,000
Vegetables	57,000	34,000	48,000	48,000	47,000	2,000
Fruit	44,000	41,000	33,000	27,000	33,000	1,000
Other	28,000	39,000	47,000	50,000	45,000	2,000
Alcohol	27,000	10,000	7,000	14,000	11,000	2,000
Tobacco	9,000	5,000	3,000	4,000	4,000	1,000
TOTAL	496,000	543,000	513,000	529,000	522,000	

Table 47 Imputed Consumption Values (LAK) per Person per Month (Source: SES AR 2014)

3.21 Poverty

145. Poverty is general scarcity or dearth, or the state of one who lacks a certain amount of material possessions or money. Poverty is a multifaceted concept, which includes economic, social, health, environment and political elements. Poverty may be defined qualitatively by participatory methods, and quantitatively using proxy metrics. .
146. The current estimate of the Lao Rural Poverty Line for October 2014 (the start of the survey period) is approximately 230,000 kip per capita /month (US\$28.75 at current rate of exchange). It is based on the inflation of the 2010 poverty line to 2014 prices). Poverty lines also include measurements typically based on a minimum calorific intake per person plus an allowance for other necessities such as clothing, shelter, medicine and education. The current estimate of the poverty line requires an inflation adjustment for over 5 years, and should be considered, at the moment as an approximate guide only.

Date	CPI (central zone)	Rural Poverty Line ⁶
January 2010	95	180,000
October 2014	123.4	230,000

*.

Table 48 Estimated poverty line for study area. (Expressed to the nearest 10,000 LAK)

147. A total of 469⁷ households out of the total 481 households were assessed in the 4 villages. A total of 9 households or about 2% of the population were classified as poor on our estimate of the current poverty line (230,000 kip/person/month). See Table 49.
148. This poverty evaluation is likely to be valid at a statistical level for the population (i.e. it is a reliable estimate of the overall percentage of household living in poverty) – however, it only provides an initial

⁶ GoL Decree on Poverty Criteria and Development Criteria 2012-2015, No. 201/GO, April 25, 2012

⁷ 469 Households were interviewed for the socio economic survey. The remaining 12 households could not be interviewed, because they were temporary absent from their home; refused to participated in the survey or otherwise unavailable to be interviewed.

guide for evaluation individual households since it is largely based on “average calorific requirements” and subject to some measurement error.

149. The estimate of the number of households living in poverty is relatively insensitive to increases in the poverty line above our estimate since only one household was classified as “near poor” (230,000-250,000 LAK/ month).

Village	Houaypamom	Sopphuane	Namyouak	Sopyouak	Total
Above Poverty Line	100%	95%	98%	99%	98%
Near Poor	0.0%	0.0%	0.6%	0.0%	0.2%
Poor	0%	5.2%	1.7%	1.2%	1.9%
Total number households	43	77	181	168	469

Table 49 households’ poverty percentage in 2LR (Source: Baseline Socioeconomic Survey, 2014).

3.22 Vulnerable Households

150. Vulnerable households are households that may fall into poverty as the result of external stresses such as resettlement. The vulnerability assessment also included identification of households with special needs.
151. The vulnerability-assessment for 2LR identified 66 potentially vulnerable households with a total population of 418 people. The reasons for their vulnerability are diverse and include the presence of physically or mentally impaired household members, drug addicts, low income, and 6 female headed household (Table 50 below).

Source of vulnerability	Houaypamom		Sopphuane		Sopyouak		Namyouak	
	HHs	Residents of vulnerable HH	H Hs	Residents of vulnerable HH	HH s	Residents of vulnerable HH	HH s	Residents of vulnerable HH
Intellectually impaired	1	4	1	7	5	26	7	57
Low income and physical disability	4	12	3	27	6	45	6	40
Female headed household	0		2	2	3	19	1	1
Low income	0		3	19	0		4	37
Drug addict	4	20	3	13	5	49	5	34
Elderly	0		0		2	4	1	2
TOTAL	9	36	12	68	21	143	24	171

Table 50 Vulnerable Households in 2LR villages (Source: 2015 field visits)

While the vulnerable households overlap with households experiencing rice insufficiency, special attention will be paid by the Project to the specific kinds and causes of vulnerability, and it will extend transitional assistance, and provide additional health support. For

households having persons with physical disabilities, care will be taken to ensure the replacement housing is easily accessible.

CHAPTER 4 - Land Acquisition and Resettlement

152. Impoundment of the reservoir in NNP1 at 320 m MSL will cause the loss of all the residential and of most of productive lands (including all paddy fields) in the 4 villages of Zone 2LR. Ban Houaypamom, Ban Soppuane, Ban Sopyouak and Ban Namyouak will end up about 50-70 meters under water (see Figure 3, Figure 11, Figure 12, Figure 13 and Figure 14). It will be necessary to resettle the residents of these communities, i.e. a total of 481 households and 3,197 affected people. After several suggestions and consultations over a period of some years, the current resettlement site for these four villages is Houay Soup in Bolikhan District, Bolikhamxay Province. However, some households may opt for self-resettlement with cash compensation when it comes to the final choice.
153. Because of these impacts, the people of 2LR villages will relocate in early 2017, before the rainy season. Initially 44 households in Nam Youak refused to participate in the asset registration processes. Following several rounds of consultations with these households and the issuance of Notification 694 dated 17 June 2016, 23 households decided to join the asset registration. The remaining 21 households continue to refuse to participate in the asset registration processes. All information on assets impact belonging to the 23 households who joined the asset registration process are included in the tables.
154. Notification 694, dated 17 June 2016, sets the deadline for participation on asset registration as 10 July 2016. The households in Nam Youak were informed about this notification, its deadline and the next steps listed in the process of asset registration, as clarified in Figure 16 and Figure 17.
155. Notification 694 and Figure 16 both indicate that if households continue to refuse to participate in the asset registration process after the deadline, photos of the residential areas will be taken and measurements made based on satellite image. For agricultural lands, satellite imagery will be used to estimate the unclaimed agricultural area within the boundaries of Namyouak and allocate this among the refusing PAPs pro ratio to the number of households. The 21 households refused to allow project staff to take photos of their houses or any other assets and threatened with violence if anyone would attempt to do so. Therefore, the project only has satellite imagery of the unclaimed agricultural area within the boundaries of Namyouak. These lands are listed in the tables below, in a dedicated row labelled “21 HH in Nam Youak”. Because only satellite imagery is available to assess assets of the 21 HH, no count could be made of trees, perennial crops nor buildings on the land.
156. Five households currently not living in any of the 5 villages, have land situated in village territory of 2LR (see Table 51). Their assets are included in the summary listed in the following sections under the village name where their impacted assets are located and not listed separately.

Village Name	HH	Population		Ethnicity		Directly Affected		Ethnicity	
		People(Total)	People(Fem.)	Hmong	Lao Loum	HH	Population	Hmong	Lao Loum
Houaypamom	44	347	174	44		44	347	44	
Namyouak	188	1357	653	188		188	1357	188	
Soppuane	77	548	272	77		76	545	76	
Sopyouak	173	1182	584	171	2	172	1180	170	2
ZOther	NA	NA	NA	NA	NA	5	NA	NA	NA
Total	482	3434	1683	480	2	485	3429	478	2

Table 51. Projected Affected People of Zone 2LR (Source: census survey 2014).

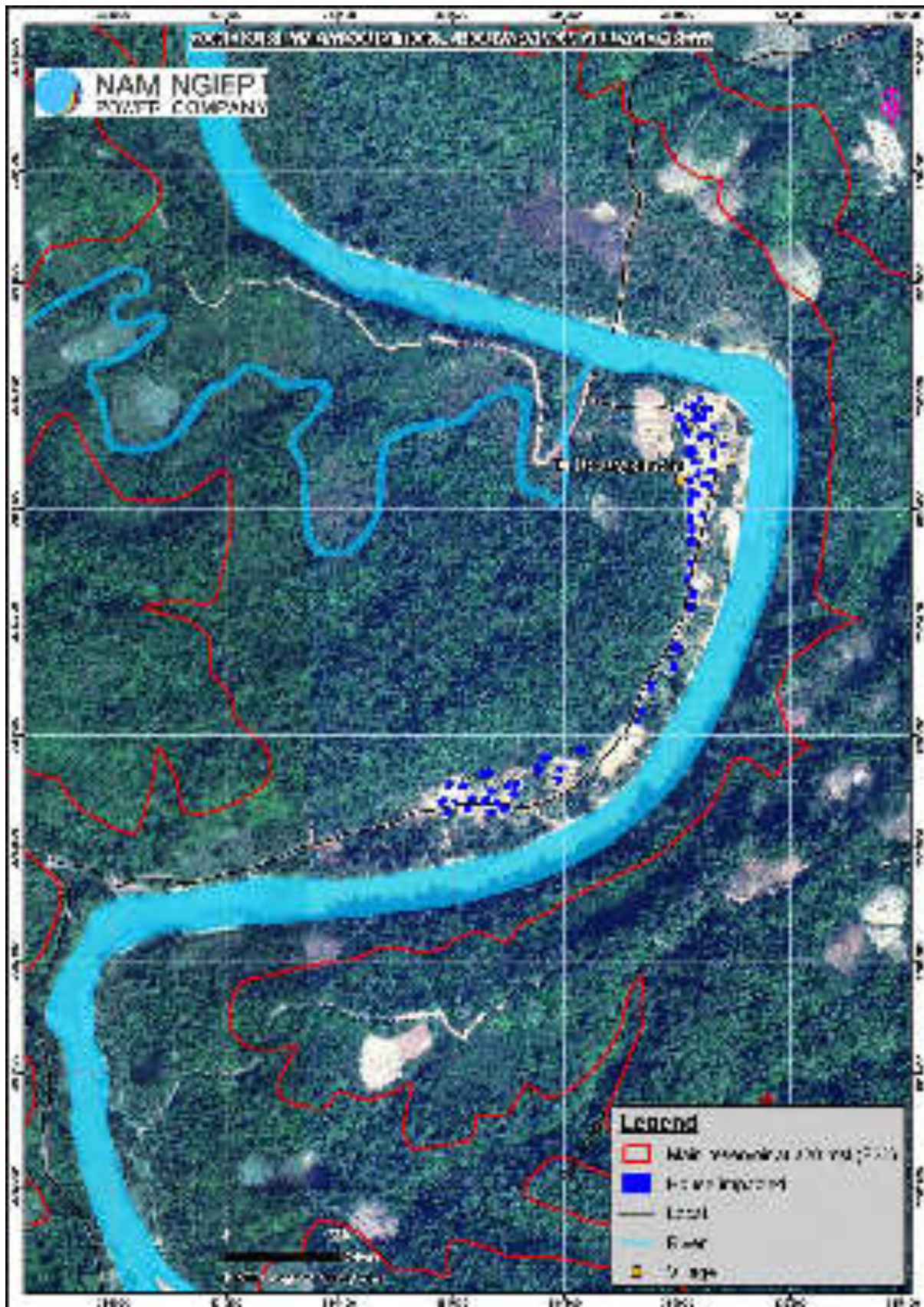


Figure 11: Map of area of Houaypamom affected by Impoundment

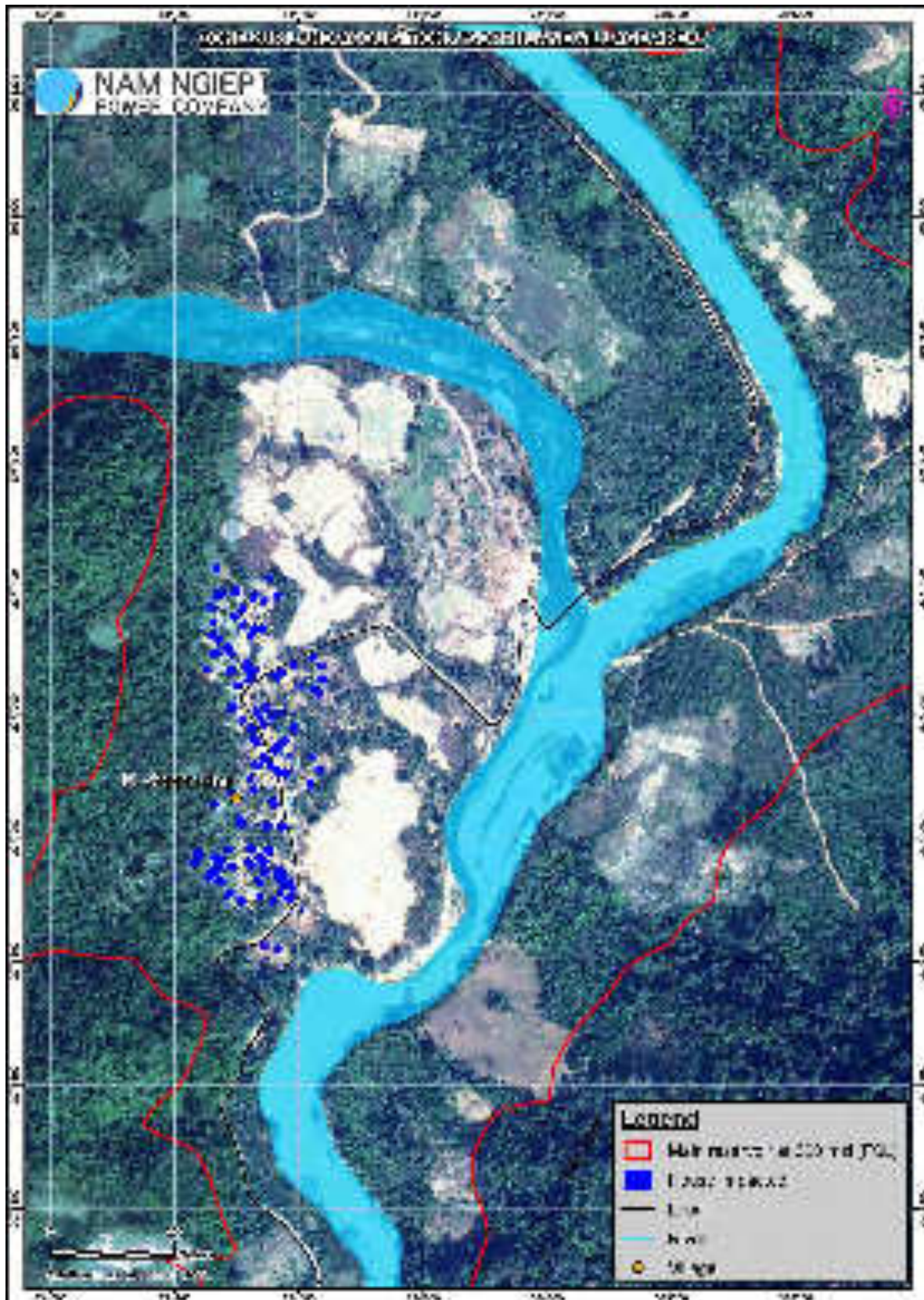


Figure 12: Map of area of Sopphuane affected by Impoundment

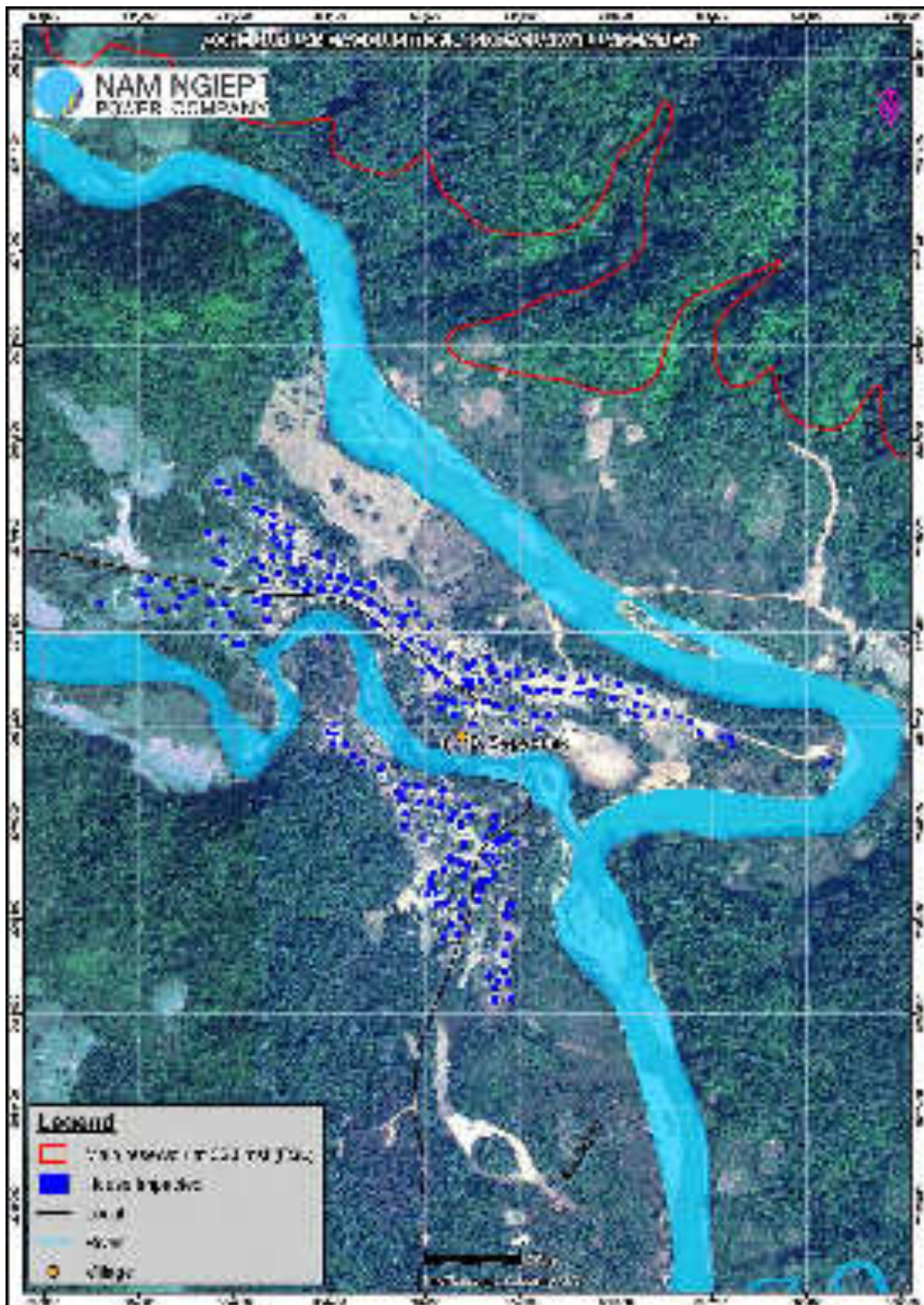


Figure 13: Map of area of Sopyouak affected by Impoundment

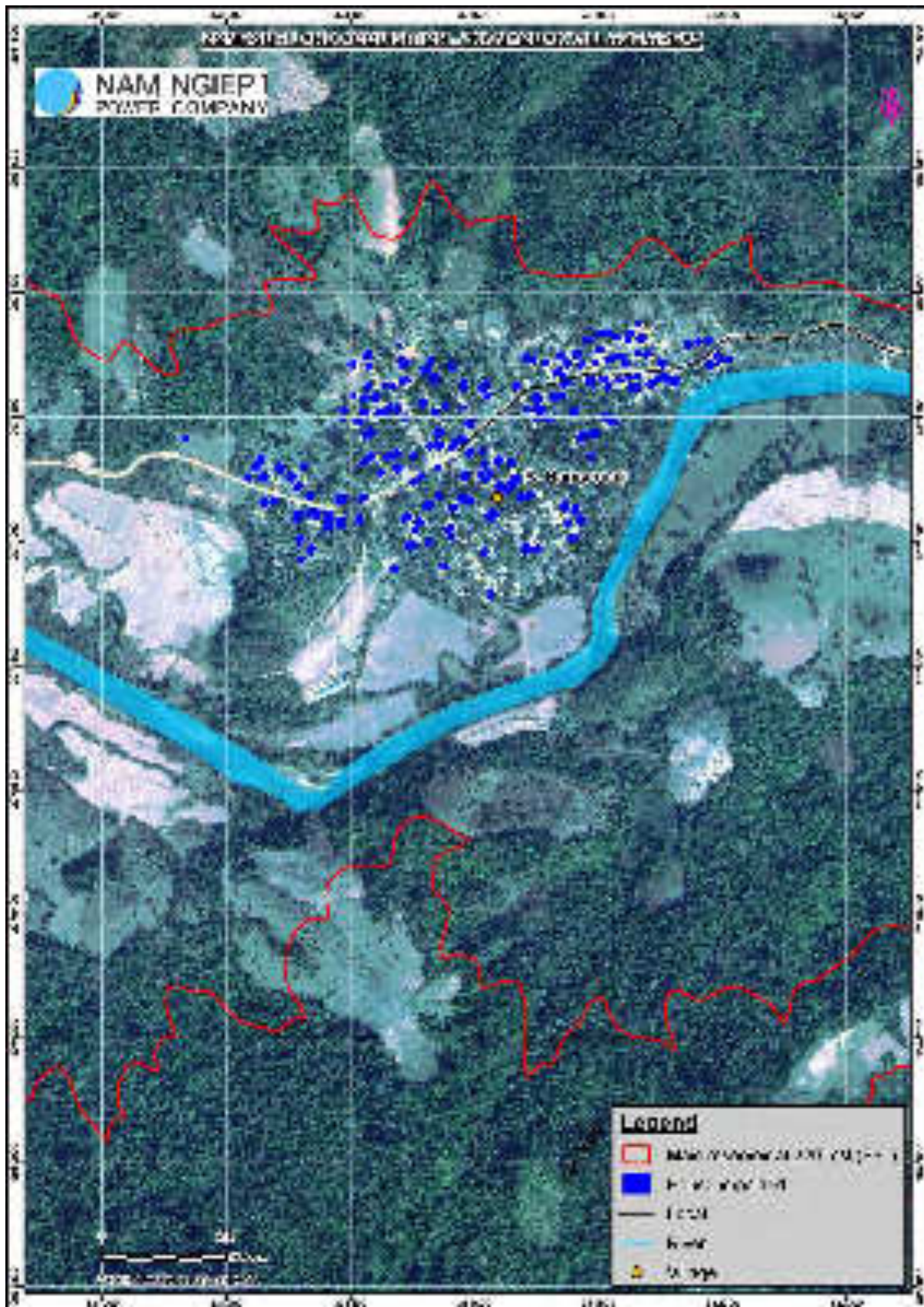


Figure 14 Map of area of Namyouak affected by Impoundment.

4.1 Loss of Structures

157. This Chapter lists the fixed assets in the four 2LR villages currently belonging to or used by PAPs in 2LR. Table 52 shows the type and number of main structures belonging to Zone 2LR PAPs.

Forty six shops in 2LR will need to temporarily close, as the owners resettle to the HSRA. These shops are small grocery shops, selling basic supplies used in the daily lives of the villagers, such as salt, cooking oil, soap, noodles, soft drinks, beer and cigarettes from an outbuilding to the house of the shop owner. The shops are family run, mostly by the female head of HH and a daughter of the household selling the goods. None of the shops have employees working in them. The shop owners of these shops are entitled for compensation of Income Substitution, as per detailed entitlement matrix 4.1. For resettlement to the Houay Soup resettlement area, a temporary closure period of 2 weeks is assumed, unless proven to be longer. Cash Compensation for Loss of Business Income equivalent to potential net profit of closure period will be paid, based on an assessment endorsed by the PRLRC. Net income of a business is very difficult to assess, since few records are kept, costs are not tracked and mark-ups on prices are highly variable from product to product. Therefore, the assessment of the net profit of the shops will be made in close consultation with the shop owner and a team comprising RMU, DCC, and SMO off-farm livelihood officer and monitoring team member.

No	Impacted Structures	Houaypamom (# of structures)	Namyouak (#of structures)	Namyouak 21 HH (#of structures)	Sopphuane (#of structures)	Sopyouak (#of structures)	Total (#of structures)
1	Animal pen	32	103		56	130	321
2	Cattle pen	6	38		3	26	73
3	House	60	187	21	91	214	573
4	Kitchen	32	115		47	143	337
5	Other	118	455		207	516	1,296
6	Poultry pen	73	244		100	280	697
7	Rice storage	30	106		46	131	313
8	Ricefield hut	20	34		9	40	103
9	Ricemill	4	13		6	25	48
10	School	2			2		4
11	Shop	1	22		4	22	49
12	Storage		1		2	2	5
13	Toilet	10	94		25	84	213
14	Canal	22	-		-	46	68
15	Road	1	-		-	1	2
Total:		411	1,412	21	598	1,660	4,102

Table 52: Impacted Structures of Zone 2LR (Source: Asset registration 2016)

All information on assets impacts exclude the assets belonging to 21 households in Nam Youak, who refuse to participate in the asset registration process and refused to allow observations of their assets (see paragraph 153 - 155 above).

No	Impacted fences	Houaypamom (length in m)	Namyouak (length in m)	Sopphuane (length in m)	Sopyouak (length in m)	Total (length in m)
1	*2-Line Barb Wire	32.00	529.00	388.00	879.80	1,828.80
2	*3-Line Barb Wire	1,160.00	2,594.00	3,824.00	37,552.01	45,130.01
3	*4-Line Barb Wire	807.00	18,911.00	4,084.10	32,357.25	56,159.35
4	*Mesh		698.70	175.00	995.00	1,868.70
5	Bamboo fence (poles and planks)	503.00	2,189.60	764.20	2,261.30	5,718.10
6	Bamboo fence with wooden poles	3,078.50	2,508.30	1,771.40	7,178.30	14,536.50
7	Barb wire fence with wooden poles	312.70	8,024.30	1,559.80	1,137.00	11,033.80
8	Chain link fence	73.00	673.20	292.00	1,200.70	2,238.90
9	Plank fence	13.00	1,783.40	158.70	422.00	2,377.10
10	Wooden fence (poles and planks)	3,838.60	7,969.60	4,042.50	14,147.22	29,997.92
	Total:	9,817.80	45,881.10	17,059.70	98,130.58	170,889.18

Table 53 Impacted on fencing in the four communities of Zone 2LR (source: Asset registration 2016).

All information on assets impact exclude the assets belonging to 21 households in Nam Youak, who refuse to participate in the asset registration process and refused to allow observations of their assets (see paragraph 153 - 155 above).

4.2 Loss of Lands

158. Land acquisition for Zone 2LR will be required as a result of impoundment of the main reservoir. All residential and most of the agricultural land in Zone 2LR (Table 54) will be lost due to impoundment as the villages are located far below the reservoir's Full Supply Level. Land above Full Supply Level will continue to be accessible by the reservoir. 418 households in 2LR have land assets above full supply level. Consultation with each household will be conducted during the final choice survey, to ask them if they want to continue to use these lands after impoundment. If a DP no longer wants to use the land, they will receive compensation for it at the same rate as for land impounded. If the DP wants to continue to use the land, no compensation will be paid. Those land plots compensated by the project and situated above 320 msl will be included in the watershed management plan and is likely be turned into forest land.
159. Land acquisition will result in permanent loss of cultivated crops, fruit trees and commercially cultivated trees. Crops are cultivated on garden land, paddy land and upland rice fields and their loss is compensated for separately to the land compensation.
160. Land acquisition will be scheduled to allow for prior harvesting, to minimize losses. Affected assets also include both commercial and fruit trees planted by villagers. They will require compensation, with PAPs able to keep and sell or use the salvaged wood. Table 55 until Table 57 list the trees and perennial crops impacted by the reservoir per village in Zone 2LR. All information on trees impact exclude the assets belonging to 21 households in Nam Youak, who refuse to participate in the asset registration process (see paragraph 153 - 155 above)
161. In addition to any compensation for the loss of these lands and other resources by cash and/or in kind, the project will initiate changes to resource utilization patterns that can provide people with stable and sustainable livelihoods

No.	Village/ Land type	Developed pasture land(Planting grass or natural grass) (Ha)	Digging Fish pond/Fish pond with stream/Natural Fish pond (Ha)	Fallow rice field (Ha)	Garden land (Ha)	Garden land for industrial plantation (Ha)	Land at the edge of paddy rice field (Ha)	Pasture land (Ha)	Plowed upland field (Ha)	Rain-fed rice paddy rice field (Ha)	Residential/ Housing land (Ha)	Rotational shifting cultivation (Ha)	Total Area (Ha)
1	Houaypamom	22.42	0.31	1.62	38.15	0.31	9.85	139.87	0.61	20.16	8.21	60.86	302.36
2	Namyouak	111.37	3.14	9.35	89.06	18.82	36.42	77.07		69.00	23.33	22.74	460.31
	Namyouak 21 HH				13.83	0.58	4.80	45.30		8.61	3.03	44.04	120.19
3	Sopphuane	30.11	2.20	7.23	100.31	12.22	15.10	89.75		34.59	10.97	96.10	398.59
4	Sopyouak	248.34	6.86	30.92	195.25	134.28	83.52	421.96	0.37	67.00	28.84	181.73	1,399.07
	Total	412.25	12.51	49.12	436.60	166.20	149.69	773.95	0.99	199.36	74.39	405.47	2,680.52

Table 54: Land acquisition of Villages in Zone 2LR, in ha. (Source: Asset registration 2016)

All information on assets impact include the assets belonging to 21 households in Nam Youak, who refuse to participate in the asset registration process. The land assets of these households were measured using satellite imagery (see paragraph 153 - 155 above).

Category	Type	Total number Impacted				Total
		Houaypamom	Namyouak	Sopphuane	Sopyouak	
Industry Tree	Mai Dou (Lao)		1,264	24	1,860	3,148
	Mai Doulai (Lao)		2	3	19	24
	Mai Fang (Lao)		4			4
	Mai Khayoung (Lao)		213		8	221
	Mai Tea (Lao)		43	10	609	662
	Mimosa	1				1
	Teak	21		7	928	956
Product Tree	Agar wood	75	10,598	584	20,532	31,789
	Bean vine (oil) >6 Months	1,699	39,307	48,656	90,455	180,117
	Jatropha	77	1,908	307	4,165	6,457
	Palm			1	16	17
	Rubber	288	25,365	12,167	94,366	132,186
	Rubber seedling <6 Months	611	24,768	70,359	106,644	202,382
	Rubber seedling 6-12 Months		6			6
Yang Bong (Lao)		18		1,059	1,077	
Bamboo	Mai Hia (Bamboo / <i>Cephalostachyum virgatum</i>)		10	3		13
	Mai Phai Ban (Bamboo / <i>Bambusa nutans</i>)	7	13	64	28	112
	Mai Phai Sang Kham (Lao)				3	3
	Mai Sang Phai (Bamboo / <i>Bambusa vulgaris</i>)		7	12	11	30
Total		2,779	103,526	132,197	320,703	559,205

Table 55 Loss of trees in Zone 2LR – 4 villages (Source: Asset registration, 2016).

All information on assets impact exclude the trees belonging to 21 households in Nam Youak, who refuse to participate in the asset registration process (see paragraph 153 - 155 above).

Category	Type	Total number Impacted				
		Houaypamom	Namyouak	Sopphuane	Sopyouak	Total
Fruit Tree	Acacia fruit			10		10
	Asian pear			12		12
	Coconut		80	7	19	106
	Custard apple		21	2	3	26
	Guava		3		10	13
	Jack Fruit	389	978	2,440	18,500	22,307
	Jujube		3	2	7	12
	Kaffir Lime		3		13	16
	Kapok	9	244	17	205	475
	Lime	13	519	134	222	888
	Litchi		107	42	232	381
	Local Guava	165	1,045	564	1,120	2,894
	Local jujube	12	136	421	394	963
	Local Santol		1		2	3
	Longan	5	138	485	236	864
	Mak Fai (Sour berry)	1	150	77	535	763
	Mak inthaphalang (Lao)		8			8
	Mak Khai/Mon (Lao)		7		14	21
	Mak Khampheb (Lao)		1			1
	Mak Khor (Lao)		30		22	52
	Mak Loth (Lao)	1	16	3	22	42
	Mak Mone Khai (Lao)	1	14	2	11	28
	Mango	478	2,582	1,921	5,787	10,768
	Midnight Horror	57	799	560	8,717	10,133
	Orange	15	363	289	52	719
	Pomegranate			1		1
	Pomelo	95	779	465	316	1,655
	Rambutan	4	51	42	705	802
	Sour tamarind	26	506	53	648	1,233
	Star Apple	19	226	78	456	779
Star fruit	4	61	56	14	135	
Star gooseberry	1	9		2	12	
Tamarind	95	754	169	1,779	2,797	
Ton Mak Khaen (Lao)	420	7,121	3,259	10,560	21,360	
Wollongong fruit		1			1	
Total		1,810	16,756	11,111	50,603	80,280

Table 56 Type and number of fruit trees in 2LR villages (Source: Asset registration 2016).

Category	Type	Total number Impacted				
		Houaypamom	Namyouak	Sopphuane	Sopyouak	Total
Perennial	Banana	7,500	27,258	15,664	18,321	68,743
	Banana <1 year	1,219	4,573	3,977	16,681	26,450
	Cassava	50,034	159,547	130,919	519,640	860,140
	Lemon grass	2,393	16,741	4,169	55,912	79,215
	Papaya (Productive)	8,385	6,659	20,488	83,644	119,176
	Papaya (Unproductive)	3,052	3,787	8,106	85,532	100,477
	Pineapple (Productive)	76,302	1,090,809	402,157	768,705	2,337,973
	Pineapple (Seedling)	3,535	4,073	1,355	42,162	51,125
	Pineapple (Unproductive)	20,670	114,292	39,613	516,989	691,564
	Sugar cane	4,363	6,021	5,169	22,200	37,753
	Sugar cane (Black)	201	157	155	171	684
Total		177,654	1,433,917	631,772	2,129,957	4,373,300

Table 57 Type and number of perennial crops in 2LR villages (Source: Asset registration 2016).

4.3 Assets above Full Supply Level

162. As described in Chapter 4.2 above, 418 households in 2LR have land assets above full supply level. These lands are not impacted by the reservoir inundation and remain accessible via the reservoir. The 418 households will be provided with the option to either (i) continue to cultivate these lands, or (ii) not continue to cultivate their lands and receive compensation for these assets. Consultation with each household will be conducted during the final choice survey, to ask them if they want to continue to use these lands after impoundment. The following tables lists the land, trees and perennial crops situated above full supply level. Depending on the choice of the DP's these assets will continue to be used by the DP's for their livelihood or compensated by the project and handed over to the Government, to be turned into forest under the watershed management plan currently developed by the EMO and relevant GOL departments represented in the Watershed Management Committee.

No.	Village/ Land type	Developed pasture land(Planting grass or natural grass) (Ha)	Digging Fish pond/Fish pond with stream/Natural Fish pond (Ha)	Fallow rice field (Ha)	Garden land (Ha)	Garden land for industrial plantation (Ha)	Land at the edge of paddy rice field (Ha)	Pasture land (Ha)	Plowed upland field (Ha)	Rain-fed rice paddy rice field (Ha)	Residential/Ho using land (Ha)	Rotational shifting cultivation (Ha)	Total Area (Ha)
1	Houaypamom	4.06	0.06		12.64	6.30	0.31	127.05				71.14	221.57
2	Namyouak	342.59	0.01	4.83	80.98	74.29	3.83	351.94	0.15	2.79	0.27	284.08	1,145.75
3	Sopphuane	36.49	0.05		26.44	33.56	1.47	356.26				133.76	588.01
4	Sopyouak	180.67	0.57	4.41	30.56	259.43	19.02	519.37		3.97		51.16	1,069.16
Total		563.81	0.70	9.23	150.62	373.57	24.63	1,354.63	0.15	6.76	0.27	540.13	3,024.49

Table 58. Cultivated land above FSL (320 msl) (Asset registration database 2016)

No	Impacted Structures	Houaypamom (# of structures)	Namyouak (#of structures)	Sopphuane (#of structures)	Sopyouak (#of structures)	Total (#of structures)
1	Animal pen		6	1		7
2	Cattle pen		3			3
3	Second House		4			4
4	Other	14	78	25	46	163
5	Poultry pen	1	21	3	5	30
6	Rice storage		3			3
7	Ricefield hut	3	3		2	8
8	Toilet		4			4
9	Canal	2			11	13
10	Road	2				2
Total:		22	122	29	64	237

Table 59 Assets above FSL (320 msl) (Asset registration database 2016).

No	Impacted fences	Houaypamom (length in m)	Namyouak (length in m)	Sopphuane (length in m)	Sopyouak (length in m)	Total (length in m)
1	*2-Line Barb Wire				485.00	485.00
2	*3-Line Barb Wire		1,049.00		6,079.00	7,128.00
3	*4-Line Barb Wire	59.00	4,269.00	390.00	2,709.00	7,427.00
4	Bamboo fence (poles and planks)		509.00	25.00	215.00	749.00
5	Bamboo fence with wooden poles		1,825.00	466.00	89.00	2,380.00
6	Barb wire fence with wooden poles		1,877.00			1,877.00
7	Wooden fence (poles and planks)		3,277.00	61.00	1,119.00	4,457.00
Total:		59.00	12,806.00	942.00	10,696.00	24,503.00

Table 60 Fencing above FSL (320 msl) (Asset registration database 2016).

Category	Type	Total number Impacted				
		Houaypamom	Namyouak	Sopphuane	Sopyouak	Total
Perennial	Banana	23	8,169	336	2,082	10,610
	Banana <1 year	1	2,170	276	674	3,121
	Cassava	45,224	242,757	45,951	11,201	345,133
	Lemon grass	62	2,085	378	1,279	3,804
	Papaya (Productive)	60	7,111	6,287	2,483	15,941
	Papaya (Unproductive)	82	4,992	4,585	10,996	20,655
	Pineapple (Productive)	32,935	72,721	58,152	68,074	231,882
	Pineapple (Seedling)		5	739	51	795
	Pineapple (Unproductive)	12,480	18,462	29,104	15,263	75,309
	Sugar cane	66	4,337	1,809	2,478	8,690
	Sugar cane (Black)		22	239	1	262
Total		90,933	362,831	147,856	114,582	716,202

Table 61 Perennial crops above FSL (320 msl) (Asset registration database 2016).

Category	Type	Total number Impacted				
		Houaypamom	Namyouak	Sopphuane	Sopyouak	Total
Fruit Tree	Coconut				4	4
	Guava				3	3
	Jack Fruit	47	860	589	1,154	2,650
	Kaffir Lime				2	2
	Kapok		2			2
	Lime		38	4	15	57
	Litchi		11	1	27	39
	Local Guava		548	30	331	909
	Local jujube		6	85	5	96
	Longan		23	7	155	185
	Mak Fai (Sour berry)		209	1	43	253
	Mak inthaphalang (Lao)		21		13	34
	Mak Khai/Mon (Lao)		3		15	18
	Mak Khampheb (Lao)		6			6
	Mak Khor (Lao)		270		136	406
	Mak Loth (Lao)		2		5	7
	Mak Mone Khai (Lao)				8	8
	Mango	326	672	415	1,594	3,007
	Midnight Horror		21	10	162	193
	Orange		31		192	223
	Pomelo		87	43	561	691
	Rambutan	5	410	9	625	1,049
	Santol				1	1
	Sour tamarind		42	5	133	180
	Star Apple		11	3	90	104
Star fruit		107	16	8	131	
Tamarind		408	3	73	484	
Ton Mak Khaen (Lao)	42	3,191	673	857	4,763	
Total		420	6,979	1,894	6,212	15,505

Table 62 Fruit trees above FSL (320 msl) (Asset registration database 2016).

Category	Type	Total number Impacted				
		Houaypamom	Namyouak	Sopphuane	Sopyouak	Total
Industry Tree	Mai Dou (Lao)		200		2	202
	Mai Khayoung (Lao)		402		486	888
	Mai Tea (Lao)			2	212	214
	Teak				12	12
Product Tree	Agar wood		3,860	1	3,144	7,005
	Bean vine (oil) >6 Months		38,666	12,934	3,510	55,110
	Jatropha		5		478	483
	Rubber	2,764	32,192	22,384	134,493	191,833
	Rubber seedling <6 Months		420	501	10,985	11,906
Yang Bong (Lao)	1	5			6	
Bamboo	Mai Phai Ban (Bamboo / Bambusa nutans)		1	2		3
Total		2,765	75,751	35,824	153,322	267,662

Table 63 Industrial trees above FSL (320 msl) (Asset registration database 2016).

4.4 *Community Infrastructure and Cultural Resources*

163. In addition to private land, community resources will be lost due to inundation. To address the high demand for community forest, application has been made and access has been granted by the Project to MoNRE for exclusive DP use of 3,715 hectares of protected forest in the Houay Soup area. Land title no 3143 dated 25 December 2015 and other land certificates are attached in Annex E.
164. As with private structures, all public infrastructures in 2LR will be lost. The resettlement site will provide replacement for this entire lost infrastructure to the same or higher standards. Appropriate ceremonies will be conducted for the village re-siting as well as for the transfer of spirits of deceased villagers. During the consultation meeting in September 2015, the PAPs of 2LR were informed by the RMU on the compensation unit rates No 1003/ XSB.PG dated 21 August 2015. These compensation unit rates include the rate for grave relocation.
165. There are few community infrastructures in 2LR villages (see Table 64). Community infrastructure in the resettlement site (schools, medical centre, meeting hall, market place etc.) will be both a significant improvement in the quantity and quality of village facilities. There are 4 primary and 1 secondary schools of basic quality in 2LR (some of them having been repaired or improved by the Project in 2014-15), which will be replaced by a solid structure to national standard, with accompanying water supply and toilets for the students.

Items	Village			
	<i>Houaypamom</i>	<i>Sopphuane</i>	<i>Sopyouak</i>	<i>Namyouak</i>
Primary School	1	1	1	1
Secondary School	-	-	-	1
Health Centre	-	-	1	-

Table 64: Loss of Public Infrastructure Zone 2LR. (Source: Field Survey 2016).

For graves and cemeteries, a dedicated REDP Update is available on the Companies and ADB's website. They are therefore not listed in this REDP Update. Grave compensation started after the REDP Update was approved by the ADB, in May 2016 and is currently completed except for two households in Nam Youak who refuse to cooperate on Asset registration and compensation.

4.5 *Gender Impacts*

167. The project is expected to have few gender-specific adverse impacts in 2LR, with the exception of the possibility of inadequate nutrition during the first years of the project, while the newly resettled villagers are getting used to their new homes and fields. This would be of particular concern for pregnant women, women with infants and children, and those infants and children. The project will make sure that any pregnant or nursing women have adequate health care and are able to receive adequate nutrition, since these are critical to the health of the children.
168. Women will also lose access to fisheries resources (in Nam Ngiep and tributaries). However, women participate in only 12% of the total fishing days (Fish Catch Monitoring data 2016). Raising fish in home plot ponds or in the areas adjacent to paddy rice fields (see Chapter 9.1.5) could replace this kind of fishing, based on the individual households' preferences and other available sources of fish, such as reservoir fisheries.

169. All women were consulted separately by the project in women-only meetings. Because women in 2LR are largely illiterate, communication methods were verbal and illustrative, and conducted in Hmong language.
170. Mitigation measures are integrated into the Gender Action Plan, outlined in the SDP. Measures to empower women and ensure they benefit from the Project are also incorporated in the GAP.

4.6 Resettlement Consultation

171. Final decisions to accept cash compensation based on agreed unit rates or to relocate to Houay Soup have yet to be made. The Project is preparing a timetable of consultation on this topic with separate meetings held for men and women, so that enough time is given for each household to discuss among themselves their preferred choice before the final decision is made. Most poorer families, women-headed households and the vulnerable have expressed preference to move to Houay Soup, as they will obtain better living conditions, receive land plots, and will have improved community infrastructure including school, roads and clinic. The Project has made a point of minuting the thoughts and feelings of PAPs and incorporating their views into revised planning processes. The Project has discussed with village elders, Resettlement Management Unit, and PAPs from Hatsaykham, what the final decision date will be, and what the subsequent procedure will be following household decisions, or for those who cannot come to a decision. Details are included in Chapter 7.

4.7 Impacts on Income and Livelihood

172. All key sources of income will be affected by the Project and impacts will be significant. Complete loss of land and assets presents significant adverse impacts on the economy and social economy of 2LR villages. Table 65 lists anticipated impacts on household income sources. The list includes both negative and positive impacts from the project or mitigation activities undertaken by the project.

Income Source	Negative Impact	Mitigation / Improvement in case of resettlement in Houay Soup
Agriculture	<ul style="list-style-type: none"> • Loss of existing land with developed agriculture (rainfed paddy fields) • Possibly smaller land area provided per household in Houay Soup. • Feared lower quality of soil in resettlement area • Loss of grazing area 	<ul style="list-style-type: none"> • Paddy fields with irrigation system for dry season to ensure higher productivity on smaller land plots; • Soil improvement provided • Higher yielding rice varieties and rice cultivation techniques introduced Smaller grazing area but increased productivity through improved raising systems • Improved road access and vicinity to markets • Livelihood assistance and marketing programs • Access facilitated to remaining resources (commercial tree plantation) above FSL
Fishing	<ul style="list-style-type: none"> • Loss of Nam Ngiep and tributaries resources. 	<ul style="list-style-type: none"> • Reservoir fishery may be significant, particularly immediately following filling

Income Source	Negative Impact	Mitigation / Improvement in case of resettlement in Houay Soup
		of the reservoir. <ul style="list-style-type: none"> • Large area of reservoir may increase fishing 'range'. • Access facilitated to reservoir for fishing purpose • Resettlers must have fishing rights not guaranteed by the CA • Raising fish in home plot ponds, the irrigation pond or in ponds adjacent to paddy rice fields.
Forest Income	<ul style="list-style-type: none"> • Access to community forest lost 	<ul style="list-style-type: none"> • Forest management programs (Participatory Land Use Planning) and development of NTFP production. • Dedicated forest use area under consideration by MoNRE
Employment	<ul style="list-style-type: none"> • Disruption of traditional employment opportunities 	<ul style="list-style-type: none"> • Employment opportunities with project. • Improved formal and vocational education • Greater range of off-farm employment opportunities in a larger amalgamated village.
Business	<ul style="list-style-type: none"> • Disruption of businesses during relocation process • Greater competition in larger village. 	<ul style="list-style-type: none"> • Improved infrastructure (market hall) and communications and closer markets. • Greater opportunities in larger village • Improved road access opens a wider market.
Other Income	<ul style="list-style-type: none"> • Limited impact 	Greater opportunities for households to have members employed out of the village and to provide remittances.

Table 65 Anticipated impacts on income.

173. The Project has taken these concerns on board and has integrated mitigation measures to specifically address them (see Chapter 6). Detailed monitoring of household income and consumption will be undertaken throughout the implementation period and until 10 years after COD to determine if household reach the income and consumption targets specified in the CA.

CHAPTER 5 - Entitlement Policy Framework

5.1 Overall Policy

174. Laws, regulations, and safeguards policies that guide this REDP U2LR are presented in Chapter 2. The project's overall objective is to avoid or minimize the impacts on people, households, businesses and others affected by the land acquisition required by the project. Where resettlement or compensation is unavoidable, PAPs will be compensated for their net loss of land and assisted to assure their living standards remain at levels equal to, if not better than, before the Project.
175. **Compensation Policy.** The overall policy of NNP1 is, wherever feasible, to provide in-kind compensation to affected people for impacts caused by the project. Where the losses will not be significant (i.e. less than 10% of total productive assets [income generating] is affected; to assess land and non-land productive assets, impact on potential production in relation to income/expenditures can be used as proxy), cash compensation will be provided. Where relocation of houses is required, in-kind compensation of new housing, residential land and payment of all costs of relocation are covered by the Project. Voluntary donations of land or other assets will not be permitted.
176. The preference is to relocate affected households of 2LR villages to the resettlement site of Houay Soup, to provide replacement and improved quality housing, community assets and land of equal productive value of land lost. However, the stated wishes of some households to receive cash compensation instead have been accepted by the Project. All households will therefore also be offered packages of cash compensation for their assets that are comparable in value to the total package that PAPs will receive if opting for relocation to Houay Soup. Households are then able to make an informed decision which option they will choose.
177. Those households choosing cash compensation and self-relocating within the Project Area of Influence Area will remain eligible to participate in various Project programs, including livelihoods training. Those opting to self-relocate outside the Project Area of Influence will no longer be eligible for any further Project support beyond the cash compensation.
178. As stated above, the overall policy of NNP1 is, wherever feasible, to provide in-kind compensation to affected people for impacts caused by the project and to provide each household with a viable portion of irrigated paddy land and community resources from which they can obtain a reasonable living standard. The amount of irrigable paddy land that can be provided in the resettlement village is limited, thus households will be compensated with paddy land on a per capita basis and where the value of this is less than the value of land in the original village, the difference will be provided in cash compensation. However, this will depend on the final choice of DP households in both Zones 3 and 2LR - the more households opting for cash compensation, the greater the land distribution possibilities in Houay Soup. Nonetheless, even if land parcels allocated in Houay Soup are smaller, by providing irrigation and allowing two crops per year instead of one currently, their productive value are intended to maintain parity with current production rates.
179. The per-capita allocation of paddy land in the resettlement village, combined with the livelihood development programs, food support, transitional rice support, educational and health program are highly pro-poor and the project expects low income and vulnerable households to progressively benefit from these policies.

5.2 Eligibility for Compensation and Other Assistance

180. **Project affected persons (PAP).** PAPs are any person or household who will lose all or any part of their residential, construction or production land or will face a permanent or temporary loss to their business or livelihood, or will experience permanent or temporary loss of access to their property, as a result of the construction and impoundment of the Nam Ngiep 1 Hydropower Project (NNP1).
181. **Cut-Off-Date.** All PAPs who are identified in the project-impacted areas on the cut-off date and related census and asset registration are entitled to compensation for their affected assets and rehabilitation measures with a sufficient volume to restore their livelihoods. The cut-off date for the whole Project Area of NNP1 has been declared by the PRLRC (11 April 2014). An additional requirement of establishing the cut-off-date is the necessity to disseminate information about it as well as the commencement of the census and asset registration. While theoretically all three components should happen at the same time, actually there have been gaps between these components. Final eligibility and compensation is therefore dependent on the date all three components are completed, which is 01 September 2015 for Sopyouak and Namyouak and 02 September 2015 for Sopphuane and Houaypamom. This arrangement is re-confirmed by the PRLRC notification No. 695/ PG. XSB, dated 17/06/2016, clearly stating the cut-off-date to be 03 September 2015 as the cut-off-date of the project. This update was again disseminated to the 4 communities on June 23 and 24th 2016. Those who encroach into village lands or who move into any 2LR village after the cut-off date will not be entitled to compensation or any other assistance, unless decided otherwise by the PRLRC and any application for such must go through the grievance procedure.
182. **Ownership.** Land or property ownership is determined by any one of the following:
- land title or other legal land certification
 - customary rights to the land, even without title or certification
 - usufruct rights to the land, even without title or certification
183. In consultation with PAPs and in accordance with national land law *customary rights to land* are assessed based on activities on claimed land at least once over the last three years before the date of eligibility. This is consistent with the amended Land Law, which withdraws rights of land users from land uncultivated or untaxed for more than three years⁸. In addition, the amended Land Law sets maximum land holding sizes based on the number of labour in each household. The Project has records and satellite imagery showing land use since 2012, but where there are land tax records or land use certificates, this may support eligibility claims for land use before the three year cut-off. In Zone 2LR, customary rights relate primarily to upland rotational swidden plots but also other cultivated lands. With rapid vegetation growth the existence of these activities can be difficult to determine beyond three years. However, it is possible to see land changes for periods longer than three years if larger bushes or trees have been removed. If a land user has documentary evidence of use prior to 3 years, this can also be considered, e.g. tax payment receipts, land use certificate.
184. Although the Land Law sets maximum land holding sizes based on the number of labour in each household, which is included in the compensation unit rate decree 1003, the PRLRC and the Company agreed not to restrict compensation of land loss to a maximum size based on labour availability in a family. The amended compensation policy was included in the Addendum to Compensation Unit Rates

⁸ Decree of the President of Lao PDR on the Promulgation of the Amended Land Law, No. 61/PO, and No. 04/NA, 21 October 2003, Articles 18 and 62

No. 792 dated 20 July 2016. Therefore, the project will implement in accordance to the addendum 792 and not restrict claims of customary land use rights.

185. **Tenants.** In case an asset is impacted by the Project and used by a tenant/leaseholder/ sharecropper, both parties have specific entitlements to compensation (Concession Agreement, Annex C, Appendix 7). Tenancy agreements are eligible for compensation if signed before the Cut-Off-Date and with the parties not reasonably aware of the risk of resettlement disclosed during village consultation meetings. In the absence of formal written tenancy agreements, tenancy is assumed to be for one year.

5.3 *Principle for Valuation and Compensation Unit Rates*

186. **Valuation.** Valuation of assets for compensation has ensured that all PAPs will be compensated at replacement, or above replacement, cost. According to ADB's SPS, this is calculated based on the following elements: (i) fair market value (unit rates); (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any.
187. The various components of the compensation package and the method of replacement calculation were explained to PAPs in 2013 and 2014 as part of the BCS procedure, and 2LR villages' households agreed that the methodology was fair and transparent. The valuation is also consistent with the legal and policy frameworks of the Lao Government and follows the principles of ADB SPS and IFC Performance Standards, whichever is more stringent.
188. **Unit Rates.** Cash compensation unit prices/rates at replacement value have been assessed by the PRLRC through comparing, reviewing, and confirmation of the following four sources:
- Compensation rates paid by other investment projects operating under similar conditions; adjusted for inflation
 - Current market price study conducted by an independent consultant or research institution or NGO
 - GoL statistical information on market prices, updated monthly
 - GoL observations of prices in the affected villages
189. Following very extensive consultations between GoL (including district departments such as agriculture and forestry), PAPs (including traditional village elders in Zones 2LR, 2UR and Zone 3), and NNP1PC the PRLRC prepared and reached final agreement on the compensation unit prices/rates to be applied by the Project on 22nd of July 2015. These final rates were formally confirmed on 21st of August 2015. The unit rates were disseminated in the 4 communities of 2LR on September 1st and 2nd 2015. Some minor items are however still pending discussion and final agreement in 2LR Zone.
190. **Effectiveness.** Because compensation unit prices/rates need to reflect current replacement values, these compensation unit prices/rates apply for land acquisition in the period following 12 months from their establishment. After this period, updates and/or confirmation of continued applicability of unit rates will be necessary to establish up-to-date rates for temporary impacts, to be provided annually until the end of construction and until outstanding other compensation payments (including settlement of grievances) have been completed. Different compensation unit prices/rates for different zones areas may depend on the prevailing market prices in each area.
191. **Total costs.** Compensation unit prices/rates include fair market value and any fees or transaction costs (taxes, registration, land transfer or other administrative fees).
192. A complete list of unit rates as drafted by the PRLRC can be found in Annex A. The following table

(Table 66) provides the unit rates for different land categories.

No.	Land Type	Unit Rate in Lao Kip per sqm
1	Residential/Housing land	24,000
2	Rainfed rice field	14,000
3	Fallow rice field	4,000
4	Ploughed upland field	3,500
5	Rotational shifting cultivation 1-3 years in Houay Soup area	1,200
6	Rotational shifting cultivation 1-3 years for Other area of project	500
7	Garden land	4,000
8	Plantation land	3,000
9	Rainfed rice field (edge)	400
10	Developed land with planted grass and fence	2,000
11	Land development with natural grass and fence	600
12	Digging Fish pond / Fish pond with stream	22,800

Table 66 Unit Cost of Compensation by Type of Land Agreed between PRLRC and PAPs (PRLRC 2015)

193. **Crops.** In the case of rice paddy and other annual crops, farmers will be given every opportunity to harvest their final crops prior to acquisition of land. However, in cases where farmers are unable to harvest their crops prior to the date of transfer of land, or where crops are damaged by construction activities, average cash value of the harvest multiplied by ten shall be paid based on prices agreed by the PRLRC.
194. **Fruit Trees.** Compensation cost for fruit trees is based on cost of seedlings and transplanting in case of trees that have not yielded yet; and on the estimated value of annual fruit yields multiply by 10 years in the case of mature trees that have already yielded fruit.
195. **Plantation Trees.** In case of mature plantation trees, in addition to the compensation paid for land acquisition of plantation land, the owners will receive compensation for the trees, based on their size (size of actual impacted trees is determined during the asset registration) and have the option of harvesting the trees prior to handover of land.
196. **Perennial Plants.** For perennial plants which are neither annual crops nor trees, the PRLRC has declared set prices based on replacement value.

5.4 Consultation and Disclosure

197. Consultations and Information Disclosure for 2LR villages are outlined more fully in Chapter 10. PAPs views and concerns have been integrated into the development of the overall REDP as well as the updated REDP-U2LR planning.
198. A BCS assessment took place in 2LR villages up until the second quarter of 2014 with an overall positive result.
 - The Detailed Entitlement Matrix for 2LR villages was disclosed to PAPs in March and April 2014. Consultations on the Houay Soup Resettlement site layout and house design, unit rates, and asset

registration, have also been carried out since May 2014.

- The overall REDP planning was disclosed and discussed during these consultations as well as during the national consultation in May 2014, where PAPs from 2LR villages were present. Salient points, such as the Entitlement Matrix, have been translated into Hmong language.
 - On-going consultations accompany the resettlement implementation with physical relocation targeted for the period after Hmong New Year in early Q1 2017 and before the rainy season 2017.
199. PAPs from 2LR villages have also been integrated via broader Project consultation meetings at district and national levels. In addition, the Project disclosed information during data collection during the recent final census and asset registration. Consultations have encompassed disclosure of entitlements, grievance redress mechanism, safety provisions, and timelines. Updated information on final unit rates issued by the PRLRC in August 2015, deadline of grave registration and Cut-Off date have been provided on first and second of September 2015.
200. **Tenure Security.** For any lands impacted permanently or newly provided by the Project, GoL will issue new or updated tenure documents in joint names of husband and wife with assistance from the Project.
201. **Compensation Payment.** Payment will be made to bank accounts of PAPs in both husband's and wife's names. If the asset to be compensated is used by or the property of a second, third, or subsequent wife, where a husband has more than one wife, that wife has the option of receiving payment in both her name and that of one of her children, rather than in her and her husband's names. If PAPs have no bank account, NNP1PC will provide assistance to open a deposit account; all costs of this procedure will be borne by the company.
202. **Compensation before Impact.** Agreements will be reached with PAPs, full compensation paid, and any other rehabilitation measures agreed upon with the PAPs prior to the commencement of construction and the creation of any impacts. If any DP refuses compensation due to additional claims, the value of compensation owed to the DP will be placed in an escrow account pending resolution of such claims through the grievance procedure.
203. **Grievance Mechanism.** A grievance mechanism was established in 2013 in Zones 3 & 5 and in 2014 in 2LR and its process disclosed to PAPs and others in the affected communities. It is described in more detail in Chapter 10.

CHAPTER 6 - Entitlement Matrix and Mitigation Measures

6.1 Entitlements, Assistance and Benefits

204. General Principles are presented in section 5.2 of the overall REDP and the zone-specific entitlement matrix for Zone 2LR in its Annex B. The approved entitlement matrix is reproduced below. PAPs in 2LR villages will be eligible to the following entitlements and benefits:

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
<p>1.a.1 Loss of entire agricultural land holding, or in case of partial loss of land, the remaining land is rendered economically unviable or even if some land remains, the loss of land leads to severe impact on household income and living standards for legal owners with valid title or customary or usufruct rights, who therefore have to resettle.</p>	<p>PAPs will be entitled to:</p> <ul style="list-style-type: none"> • A package encompassing <ul style="list-style-type: none"> i. replacement agricultural land in the designated resettlement site in accordance the entitlements outlined below and ii. where impacted land exceeds the land allocation in the designated resettlement site, cash compensation as defined in REDP section 5.2.7 for the areas which cannot be compensated with replacement land. <p>For clarification, the full entitlements outlined below will be allocated to the PAPs, regardless if their land impacted is less than the replacement land provided. Replacement agricultural land (comprised of items (a) to (d) below) will be based on household size⁹:</p> <ul style="list-style-type: none"> a. Paddy rice fields: equivalent area of a minimum of 0.1 ha⁶ of paddy rice field per household member of households resettling to the resettlement site (value multiplied by the number of household members and combined in one land title in the name of both heads of household) with a household minimum of 0.3 ha and a household maximum of 1.5 ha AND b. Tree plantation land: a minimum of 0.1 ha⁶ of plantation land per person resettling to the resettlement site (value multiplied by the number of household members and combined in one land title in the name of both heads of household) AND c. Cash crop garden land: a minimum of 0.1 ha⁶ of plantation land per person resettling to the resettlement site (value multiplied by the number of household members and

⁹ Actual size will depend on the total number of people deciding to move to the resettlement site; current numbers are based on the assumption that all people move to the resettlement site, including a natural growth rate of 5% per year; actual numbers will be maximized by dividing all suitable land among the resettlers at the time of resettlement minus the land kept for second generation allocation as forest land/NTFP area under community usage.

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
	<p>combined in one land title in the name of both heads of household) AND</p> <p>d. Firewood land: a minimum of 0.08 ha⁶ of plantation land per person resettling to the resettlement site (value multiplied by the number of household members and combined in one land title in the name of both heads of household)</p> <ul style="list-style-type: none"> • Land titles will be provided with all related costs borne by the company in accordance with REDP section 5.2.15 • The replacement agricultural land is to be surveyed for UXO and rendered safe as outlined in REDP section 5.2.16. • For PAPs meeting the criteria for self-resettlement (REDP section 5.2.10) and requesting in writing to self-resettle, cash compensation for the lost agricultural land will be paid based on the principles in REDP sections 5.2.7 and 5.2.8. • Transition allowance for a period of three months as outlined under clause 3.a • Income substitution and transfer costs during re-establishment as outlined under clause 4 • For those choosing to resettle to the Project’s designated resettlement site or to self-resettle within the project area of influence as defined in REDP section 5.2.17, income restoration measures as outlined under clause 4 • For those choosing to resettle to the Project’s designated resettlement site, an in-kind Rice Supplement Program based on a provided consumption per household of 0.7 kg per day per adult and 0.5 kg per day per child (under 15 years) according to REDP section 5.2.13; rice supplement will be provided according to the following sequence: <ul style="list-style-type: none"> ○ Months 1-24 of resettlement: 100% of household consumption ○ Months 25-36 of resettlement: 75% of household consumption ○ Months 37-48 of resettlement: 50% of household consumption ○ Months 49-60 of resettlement: 25% of household consumption
<p>2.a.1 Loss of residential, commercial, industrial or institutional land without sufficient remaining land and PAPs will be</p>	<p>PAPs will be entitled to the following:</p> <ul style="list-style-type: none"> • An equivalent area of land in any case not less than 800 m² for residential land and equivalent land for commercial, industrial or institutional land of equal locational value, similar characteristics, and access to facilities in an acceptable location in the designated resettlement site. • The replacement land and entire village area is to be surveyed for UXO and rendered safe. A certificate shall be issued by the UXO clearing

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
<p>required to resettle, to include a) Legal owner with valid title or customary or usufruct rights b) Persons later accepted for inclusion by the Grievance Committee under the Grievance Procedure</p>	<p>company certifying that the land has been cleared of UXO in accordance with the applicable Law.</p> <ul style="list-style-type: none"> • Land titles will be provided in accordance with REDP section 5.2.15 • The identification of all residential replacement land and land plots shall be based on consent or broad community support of the physically displaced ethnic households and with the support of the local authorities and the Company. • The residential land plot shall be demarcated and fenced at the cost of the Company, both in terms of labour and material. • The residential land plot shall be adequately levelled and shall provide comparable access to employment, production and economic opportunities, to medical and social services, and to education services. • The Company shall support the establishment of new home gardens, including the promotion of new and improved techniques (organic farming, for example) and diversification of the crops, during the first four years after resettlement. • Replacement with commercially suitable land which is both of at least equal value and of at least equal size. • Location of replacement commercial land must be: (i) suitable for continuation of viable commercial activities, and (ii) acceptable to the Resettlers. • If suitable replacement of the commercial land cannot be found, or if Resettlers' prior commercial activities cannot be continued, or if the Resettlers don't wish to continue such activities, then the company shall pay cash compensation as outlined in REDP section 5.2.7 and 5.2.8
<p>3.a.1 Total permanent loss of structures, with insufficient land in community to reorganize, such as where all structures and lands are inundated. Or Total permanent loss of structures, or where after partial permanent loss the remaining structure is rendered unviable for continued use,</p>	<ul style="list-style-type: none"> • REDP Section 5.2.11 applies where there is a split of households <p>PAPs will be entitled to the following:</p> <ul style="list-style-type: none"> • Replacement structures of equivalent standard (small/medium/large depending on size of affected structure) in the designated resettlement site. • Project Affected Persons shall be entitled to the compensation of 1 newly-built house per household. In case that any household comprises 9 or more members, such household shall be entitled to either (a) another additional 1 newly-built house per family unit or (b) additional space and facilities within the same house adequate for the needs of the residentially joint household depending on family structure. The decision between the two options shall be made by each household with 9 or more members. • Each replacement house for each resulting household (includes multiple replacement houses in cases of extended families) shall comprise the area as follows:

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
<p>but there remains sufficient land for reorganization. Including secondary structures such as boundary walls, wells, animal sheds, granaries, etc. which are not part of the main structure/house.</p> <p>a) Legal owner with valid title or customary or usufruct rights covered by the census and their natural growth (including children of registered households who may have formed new families after the cut-off date, but excluding the relatives of a spouse who previously resided outside the area).</p> <p>b) Persons later accepted for inclusion by the Compensation Working Group or the Grievance Committee under the Grievance Procedure</p>	<p>a. 50m² for up to 5 people (small size) b. 75m² for 6 to 8 people (medium size) c. 100m² for more than people (large size), together with</p> <p>a. Independent Toilet/bathroom with a septic tank b. kitchen, c. functioning electric wiring and d. lighting throughout connected to electricity supply e. water supply (1 water-meter with tap per household).</p> <p>The Company shall bear the cost of installing one electricity meter in each house, with a minimum of one low energy consumption bulb and one electric socket in each room, with the adequate breakers.</p> <ul style="list-style-type: none"> • Ancillary structures, such as foundations for satellite dishes, shall be incorporated on the list of elements to be constructed when they exist on the old housing plot. • All replacement houses shall be constructed of new materials of good quality, supplied by Company at its cost. The house will use durable structure and walls and durable roofing material (such as corrugated metal sheets). • Several standard designs (of different sizes) shall be prepared in consultation with the Resettlers and selected by the affected households and approved by PRLRC. The selection of construction materials shall be part of the consultation. The number of toilets will be adjusted to the size of the household. These standards shall be applied independently of the original house quality, for example a household who currently owns a house of low standards shall be fully eligible to a house having the improved standards offered by the Project. • House design to be finalized in consultation with and in consideration of the preferences of structure owners and to be approved by PRLRC; • Siting of housing to ensure proximity of families to each other and to maintain pre-resettlement social relationships as desired will be discussed and agreed with PAPs during design of residential area in the resettlement site. • Existing outbuildings and ancillary structures (sheds, coops, rice storage barns, etc.) shall be compensated by cash; if requested, they can be replaced by equivalent asset. • Each existing house and outbuilding shall be dismantled with care intending to preserve the value of materials contained therein to the extent possible. • Where the resulting materials are in good condition and have continuing value as decided by the Resettler, they shall be transported to the site of the Resettler's new house at the Project's expense and

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
	<p>given to Resettler. Each Resettler shall have the right to be present at the dismantling of the existing house and outbuildings to assist in determining which materials are to be retained and which are to be disposed.</p> <ul style="list-style-type: none"> • All costs of labour required for both replacement house and outbuildings construction and existing houses and outbuildings dismantlement will be borne by the company • All costs of transporting new and recovered materials to new sites and the cost of removal for disposal of materials without further use. • For the construction of the new houses as well as the dismantling of old houses, local workforce (men or women) shall be engaged (incl. semi-skilled or non-skilled), which might include people from the village. People involved in the construction and dismantling of houses will receive the level of remuneration offered locally for a job of similar nature, qualification and responsibility. The employment of workforce in the construction shall be in full compliance with the Lao Labour law and the core labour standards as required under ADB's Social Protection Strategy 2001. • The necessary clearance of the existing vegetation shall be limited to the minimum necessary to allow for the construction of houses and related structure, and for the home garden. This vegetation clearance shall be made at the cost of the Company; • For PAPs eligible for self-resettlement along the criteria outlined in REDP section 5.2.10, compensation will be made at full replacement cost at current market value without depreciation or deductions for salvaged material. • Residential areas will be connected by roads, which will also provide access to public facilities and agricultural plots. The roads will be built as per the Lao standard for village roads. These shall include proper drainage and culverts up to the entrance of each residential plot if necessary. The road shall be covered with gravels. A detailed site development plan for the various public facilities in the village will be prepared by the project and approved by the PRLRC. • For those choosing to resettle to the designated resettlement site or self-resettle, transition allowance for a period of three months encompassing items a, b, c, and d listed below: <ul style="list-style-type: none"> ○ Essential food items other than rice, such as cooking oil, salt, high protein items such as dried meat, eggs and other items as advised by a Nutritional expert and provided in kind (except for self-resettlers, for which a one-off lump-sum allowance in cash equivalent to the value of entitlement will be provided together with items (b), (c), and (d); adding to their overall package) and

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
	<ul style="list-style-type: none"> ○ Electricity for 3 months paid as a monthly allowance of 50,000 LAK per Month and ○ Water fee for 3 months paid as a monthly allowance of 20,000 LAK per Month and ○ Solid Waste collection fee, paid as a monthly allowance of 10,000 LAK per Month. <p><i>All cash compensation will be made as outlined in REDP section 5.2.7 and 5.2.8.</i></p>
<p>3.b.3 Movable fence which can be reasonable dismantled and rebuilt without significant loss of construction materials</p>	<p>All impacted PAPs will be entitled to:</p> <ul style="list-style-type: none"> ● Cash compensation for labour requirement for dismantling and rebuilding of fences made from durable materials (such as barb wired and concrete posts); based on average labour costs as agreed by the PRLRC; ● Salvage of fencing materials ● A percentage of the affected fencing materials used is expected not to be salvaged and therefore compensated in cash at replacement value as agreed by the PRLRC <p><i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i></p>
<p>6 Loss of standing crops that could not be harvested for owners of affected crops</p>	<p>The project together with the RMU will inform the PAP in advance of the timing of impacts on standing crops (and will complete land-related compensation) with sufficient time given for the PAP to harvest these crops. The timeframe will take into consideration crop growing cycles and harvesting requirements.</p> <p>In the case that the project requires urgent access to and/or temporarily or permanent acquisition of land and is not able to provide sufficient advance notification as outlined above, the project will provide cash compensation equivalent to 10 times the market value of damaged or lost crops.</p> <p>In the case that sufficient reasonable advanced warning (taking into consideration crop cycles including land preparation but no less than 2 months)</p> <ul style="list-style-type: none"> ● not to engage in crop production is ignored, while the compensation process is completed already ● or crops ready for harvest have not been harvested in a reasonable time frame, <p>such compensation will not be provided.</p> <p><i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i></p>
<p>7.a Loss of fruit or nut trees for owner of affected trees or person with</p>	<ul style="list-style-type: none"> ● For fruit/nut trees bearing fruits, cash compensation will be paid based on the average annual value of the produce, established by the decision of the PRLRC, multiplied by 10.

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
<p>customary usage right or right to harvest (to be validated by village authorities)</p>	<ul style="list-style-type: none"> For fruit/nut trees seedlings, which are not yet bearing fruits, cash compensation will be paid based on inputs such as seedlings, land clearance and annual maintenance at rates as established by the decision of the PRLRC. <p>The PAP is allowed to salvage wood resulting from the clearance of land from fruit/nut trees as long as it does not interfere with project activities; At least two months' notice will be given to PAPs to harvest prior to any site clearance.</p> <p><i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i></p>
<p>7.b Loss of timber trees for owner of affected trees or person with customary usage right or right to harvest (to be validated by village authorities)</p>	<ul style="list-style-type: none"> For timber trees cash compensation will be paid based on replacement cost equivalent to current market value based on type, age and diameter at breast height (DBH) of trees, at rates established through the process described in REDP section 5.2.7 and endorsed by the decision of the PRLRC. <p>The PAP is allowed to salvage wood resulting from the clearance of land from timber trees as long as it does not interfere with project activities; At least two months' notice will be given to PAPs to harvest prior to any site clearance.</p> <p><i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i></p>
<p>7.c Loss of production trees (e.g. Kapok) for owner of affected trees or person with customary usage right or right to harvest (to be validated by village authorities)</p>	<ul style="list-style-type: none"> For production trees already producing, cash compensation will be paid based on the average annual value of the produce at rates established through the process described in REDP section 5.2.7 and endorsed by the decision of the PRLRC based on the age of the tree, multiplied by 10. For production trees seedlings, which are not yet producing, cash compensation will be paid based on inputs such as seedling, land clearance and annual maintenance at rates as established through the process described in REDP section 5.2.7 and endorsed by the decision of the PRLRC. <p>The PAP is allowed to salvage wood resulting from the clearance of land from production trees as long as it does not interfere with project activities; At least two months' notice will be given to PAPs to harvest prior to any site clearance.</p> <p><i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i></p>
<p>7.d Loss of construction trees for owner of</p>	<ul style="list-style-type: none"> For construction trees cash compensation will be paid based on replacement cost equivalent to current market value based on type of

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
affected trees or person with customary usage right or right to harvest (to be validated by village authorities)	<p>trees at rates established through the process described in REDP section 5.2.7 and endorsed by the decision of the PRLRC.</p> <p>The PAP is allowed to salvage wood resulting from the clearance of land from construction trees as long as it does not interfere with project activities;</p> <p>At least two months' notice will be given to PAPs to harvest prior to any site clearance.</p> <p><i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i></p>
7.e Loss of perennial plants for owner of affected plants or person with customary usage right or right to harvest (to be validated by village authorities)	<ul style="list-style-type: none"> For perennial plants cash compensation will be paid based on replacement cost equivalent to current market value based on type of plant at rates established through the process described in REDP section 5.2.7 and endorsed by the decision of the PRLRC. <p>The PAP is allowed to salvage the plant materials resulting from the clearance of land from perennial plants as long as it does not interfere with project activities;</p> <p>At least two months' notice will be given to PAPs to harvest prior to any site clearance.</p> <ul style="list-style-type: none"> <i>Payment will be made to bank accounts of PAPs as described in REDP section 5.2.8.</i>
7.f Loss of fishponds	<ul style="list-style-type: none"> For fishponds, replacement fish pond of equal size and/or productivity and amenity plus assistance to stock and feed fish or lump sum cash payment equivalent to three years of productivity as agreed with PAP; Participation in aquaculture program;
10 Unforeseen Impacts	<p>In case of any additional impacts identified during implementation, appropriate entitlement measures would be included.</p>

Table 67: Compensation and Benefits Entitlements 2LR

205. Remark: The size of company constructed replacement housing will be based on the number of people in the household. In case that a house made of (a) concrete flooring or wooden floor; and (b) brick/stone/cement block/wood wall; and (c) tiles roofing, is impacted is of a concrete/wood floor square meter (m²) size larger than the potential house allocated in the resettlement area based on the number of people in the household, then the house owner can choose to either: (i) receive cash compensation for the difference in value between the impacted house and the replacement house provided; or (ii) receive a house of at least the same square meter size as the house impacted.
206. In case the impacted house is of a calculated value (using the PRLRC compensation unit rate) higher than the replacement house allocation based on the number of family members, then the house owner can chose to either: (i) receive cash compensation for the difference in value between the impacted house and the replacement house provided; or (ii) provided that the cash value of the impacted house is larger than the cash value of a house allocated based on the number of family members, receive a larger replacement house and the remaining value between impacted house and replacement house as a cash

payment; or (iii) receive a house of a size constructed up to the value of the house impacted.

6.2 *Income Restoration and Rehabilitation*

207. Chapter 9 describes in detail, how the Project will work with PAPs on different livelihood activities to restore livelihood and enhance economic development. As communities to be resettled to Houay Soup, PAPs will be entitled to the full livelihood restoration program, including the following measures:

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
<p>4.1 Loss of trade / livelihood / occupation or business incomes for business owners</p>	<p>All impacted PAPs will be entitled to Income Substitution as follows:</p> <ul style="list-style-type: none"> • Cash Compensation for Loss of Business Income equivalent to three months of potential net profit in case of permanent closure based on an assessment endorsed by the PRLRC. • Cash Compensation for Loss of Business Income equivalent to potential net profit of closure period up to three months in case of temporary closure based on an assessment endorsed by the PRLRC. <p>For resettlement, a temporary closure period of 2 weeks is assumed, unless proven to be longer.</p> <ul style="list-style-type: none"> • Participation in livelihood restoration programs based on priorities identified by affected households during consultations between individual PAPs, NNP1PC, and DCC; this can include for example trainings for alternative livelihood activities or enhancement of current livelihoods based on the individual preference of the PAP.
<p>4.2 Loss of trade / livelihood / occupation or business incomes for wage employees</p>	<p>All impacted PAPs will be entitled to Income Substitution as follows:</p> <ul style="list-style-type: none"> • In case of permanent closure cash compensation for loss of wages equivalent to three months of wages as indicated in the employment contract; in the case such an employment contract is not available, the wage will be based on an assessment of a wage for a comparable employment endorsed by the PRLRC. • In case of temporary closure, cash compensation for loss of wages equivalent to the closure period of wages as indicated in the employment contract; in the case such an employment contract is missing, the wage will be based on an assessment of a wage for a comparable employment endorsed by the PRLRC. <p>For resettlement, a temporary closure period of 2 weeks is assumed, unless proven to be longer.</p> <ul style="list-style-type: none"> • Participation in livelihood restoration programs based on priorities identified by affected households during consultations between individual PAPs, NNP1PC, and DCC; this can include for example trainings for alternative livelihood activities or enhancement of current livelihoods based on the individual preference of the PAP which can include: <ul style="list-style-type: none"> ○ support of employment in reconstructed enterprise or package for re-employment or starting a business

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
	<ul style="list-style-type: none"> ○ participation in Occupational Skill Development Programs which shall be designed to match the PAP's aspirations and potentials
<p>4.3 Loss of trade / livelihood / occupation for PAPs</p>	<ul style="list-style-type: none"> ● Stream-Bed/Bank Gardens shall be compensated in accordance with decisions by PRLRC <p>In case resettlement cannot be facilitated in a way that a continuous wet-season agricultural production first in 2LR and in the next wet-season in the designated resettlement site is reasonably possible,</p> <ul style="list-style-type: none"> ● the project will compensate for the loss of opportunity for net income (income substitution) equivalent to the value of a year of rice consumption based on an income substitution per household of 0.7 kg per day per adult and 0.5 kg per day per child (under 15 years) according to REDP section 5.2.13 paid in cash in accordance to REDP section 5.2.8. <p>All resettlers moving to the designated resettlement site as well as those self-resettling within the project area of influence as defined in section 5.2.17 will be entitled to:</p> <p>Participation in livelihood restoration programs based on priorities identified by affected households during consultations between individual PAPs, NNP1PC, and DCC; this can include for example trainings for alternative livelihood activities or enhancement of current livelihoods based on the individual preference of the PAP which can include a selection of the following if found to be suitable for the area.</p> <ul style="list-style-type: none"> ● On-Farm Activities: <ul style="list-style-type: none"> ○ Agricultural livelihood restoration program: intensive agriculture program (irrigated land allocation in the designated resettlement site, fertilizer, seed, agricultural extension program) ○ Suitable and functioning irrigation system including pumps, gates, gauges, and distribution systems for all the replacement paddy agricultural lands in accordance with standards issued by Ministry of Agriculture and Forestry, Lao PDR in the designated resettlement site. ○ Complete array of plants, tree saplings, cuttings, seeds and other biomaterials as well as tools and equipment if necessary, each year for a period of not less than three (3) years, in amounts sufficient to carry out all agricultural plans and optimize the productive capacity of all agricultural lands including paddy, terraces, garden plots forage plots, and forests. ○ Participation in aquaculture Program ○ If necessary, provision of tools and equipment in sufficient number and quality (including replacement tools and equipment where such items are worn out or damaged) for successful agriculture, fishery and other work of all types which are proposed under Concession Agreement, Annex C, Appendix 7 ● Off-Farm Activities: <ul style="list-style-type: none"> ○ Package for employment or starting a business ○ A range of feasible production and income generating options which will ensure household targets are met

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
	<ul style="list-style-type: none"> ○ Priority for employment in project-related jobs ○ Participation in Occupational Skill Development Programs which shall be designed to match the PAP's aspirations and potentials. ● For students committing to work either in a public function (teachers, medical staff, etc.) in the designated resettlement site or with NNP1PC, eligibility to compete for a scholarship program established and funded by the Company; scholarships will be allocated via a competitive selection process with gender quotas
<p>4.4 Transportation of Livestock and Livestock Development Program</p>	<ul style="list-style-type: none"> ● Small and medium livestock can be transported to the designated resettlement site (at the costs of the company), but animals will be required to be vaccinated prior to resettlement in accordance to GoL regulations on transportation of livestock. The project will facilitate vaccination through a vaccination program implemented by the village veterinary volunteer and bear all costs related to the vaccination program. ● Up to 5 large livestock per household is entitled to be relocated, if properly vaccinated, registered, and in good health. The project will facilitate vaccination through a vaccination program and registration implemented by the village veterinary volunteer and bare all costs related to the vaccination program. The remaining herd size must be sold to the market prior to resettlement. If the designated resettlement site can carry a larger number of livestock based on an assessment of carrying capacity of the land in relation to a Participatory Land Use Plan, this figure may be revised in agreement with the project. ● A livestock development program for the designated resettlement site shall be prepared and implemented at the cost of the project to improve livestock management (including animal health, provision of grazing and forage land) and marketing (access to existing markets and networks in the province).

Table 68: Livelihood Activities Entitlements 2LR

208. In addition to cash compensation, the households will be included in the Project's livelihood programs and/or vulnerable household programme with specific measures for each household, which can include livelihood development including investment inputs or a social safety net, depending on the feasibility for each individual household.
209. In addition family financial training will be provided during which:
- several options of livelihood development will be discussed,
 - saving systems described, and
 - the need to re-invest compensation values for a sustainable livelihood will be discussed.

6.3 Community Resources & Infrastructure

210. As outlined in Chapter 8, the Project will provide public infrastructure including electricity and water supply, school, health centre, and village hall at the new resettlement site. More specifically PAPs are entitled to the following compensation for loss of community resources and infrastructure:

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
<p>5 Loss of access to common resources and facilities including loss of access to rural common property resources and urban civic amenities, including community grazing areas, fishery and other riparian resources, NTFPs, community cemeteries for communities/Households</p>	<ul style="list-style-type: none"> • Land and river use areas will be assigned in the designated resettlement site through a participatory land use planning process for the purposes of identifying and zoning: <ul style="list-style-type: none"> ○ community forests and/or unstocked forests ○ grazing areas, ○ restocked fishing areas, ○ firewood gathering areas ○ and other common resources as identified in consultation with local authorities, PAPs and the project • Access to fishery resources in the middle and lower section of the reservoir as well as downstream of the re-regulation dam • Assistance to develop a sustainable zoning and land use plan for use of common resources including a Fisheries co-management program for fisheries on the reservoir and downstream • All replacement community forests and grazing lands to be surveyed for UXO on a sample base and UXO clearance if identified; a UXO awareness program will be implemented, to enable rapid response should a PAP find a UXO and require safe disposal. • For cemeteries and graves: excavation, movement and reburial in a culturally acceptable manner and to a location agreed upon by the PAPs, and/or ceremonies in impacted villages to enable transfer of the spirits of the deceased, whichever is culturally acceptable to PAPs. • Access to the designated resettlement site via a bridge downstream of the re-regulation dam across the Nam Ngiep River and an all-weather road connecting the resettlement site with the District Centre. • Access to existing plantations above full supply level by the provision of a commercially operated ferry system on the reservoir with the Project providing initial inputs such as training, a ferry boat, and initial operation costs for 2 months
<p>8.b Loss of public infrastructure and cultural properties for Communities / Households who have to resettle</p>	<ul style="list-style-type: none"> • For temples, spirit houses and other historical, cultural and religious structures: dismantling, relocation and reconstruction in a culturally acceptable manner and in a location agreed with PAPs • Replacement of temples, shrines and other religious structures shall be of equivalent appearance and configuration, and both not less than the same size and not less than the same value, and in any event acceptable to the community. • Provision for all appropriate rituals and acceptable arrangements for relocation of movable items and their re-establishment at new site. • Provision for appropriate rituals and ceremonies for cemeteries, holy sites, and other immovable cultural landmarks prior to Resettlers' relocation, and establishment of analogous replacement cultural resources wherever possible of at least equivalent size (e.g., new cemetery appropriately sited). • Roads with appropriate drainage facilities, culverts and bridges connecting all residential plots • Agricultural tracks leading to all major areas of the designated resettlement site providing reasonable access to the different kinds of livelihood activities and resources but not necessarily to each single plot • A school from primary school to high school grade • School equipment, including benches, tables, and blackboards, and an

Kind of Impact and Entitlement	Compensation Policy Zone 2LR
	<p>initial supply of text books, pens, and similar equipment, as per the requirements set by the Ministry of Education.</p> <ul style="list-style-type: none"> • A teacher residence house will be constructed. The teacher residence house will be built along the same standards as the ones set for the individual houses, but shall not be eligible for an individual land title. It shall be registered as community property. Its design shall take into consideration the possible sharing of this house by several persons. • A library connected to the school, and • A public health centre initially equipped with all required items for daily use in accordance with GoL standards for health centres, and then operated on a self-sustaining basis • One community building for village meetings and administration. It shall be designed to allow the presence of 2 persons per household • A roofed market with durable roofing material and concrete floor, shall be constructed. Its surroundings shall be properly drained. It shall provide a covered area of at least 300 m². • A Bus station • A Museum explaining the history of the communities and supporting preservation of culture and traditions <p>All replacement facilities will be at original or better condition; and with designs and locations agreed in consultation with the communities and relevant government authorities in accordance with the relevant applicable standard in Lao PDR of similar buildings. All shall be</p> <ol style="list-style-type: none"> a. covered with durable roofing material b. have a concrete structure c. be connected to electricity (except cemeteries and roads) d. have access to the water supply system (except cemeteries and roads) e. have toilets connected to a septic tank (except cemeteries and roads) f. UXO clearance to a depth of 1 metre for all community infrastructure land as outlined in REDP section 5.2.16. g. Fencing of all community buildings (except cemeteries and roads) h. Community and state land titles will be facilitated by the Company as outlined in REDP section 5.2.15

Table 69: Community Resources and Infrastructure Entitlements 2LR

6.4 Special Measures for Vulnerable Households

211. A dedicated program for the most vulnerable PAPs has been prepared by the Company in consultation with those PAPs to assure there are no additional adverse impacts. This program includes, but is not limited to, special transitional assistance for one year instead of three months, with the option to extend if deemed necessary and judged on a case-by-case basis. A further key element of the Project’s policy is to provide a minimum of paddy rice field land at the resettlement site for every poor family currently without paddy fields. For households without sufficient labour to make use of this land, additional support will be provided, for example in assisting to negotiate a rental of this land to other resettlers or arranging a harvest share in exchange for labour inputs.

212. As described in the overall REDP, the project addresses four different kinds of vulnerability with different programs:
- i. Needs of Ethnic Groups will be addressed as cross-cutting issues (above all regarding the use of appropriate forms of communication), but also via special programs and activities as outlined in the Ethnic Development Plan.
 - ii. The issue of PAPs without legal title to land or property is addressed by acknowledging customary rights to lands with no request for legal titles for asset registration and compensation.
 - iii. Needs of Women will be addressed as cross-cutting issues (focus group discussions, tenure security), but as well via special programs and activities as outlined in the Gender Action Plan (see SDP).
 - iv. Poor households will be addressed by a focus on land allocation of at least a viable size and additional livelihood activities, including trainings and inputs as well as the implementation of a social safety net as outlined above.
 - v. Vulnerable DP households where the measures outlined in points i to iv are not sufficient or viable will receive overall special assistance and additional, regular monitoring by the vulnerability officer.
Assistance specific to the type of vulnerability will also be provided:
 - a. for vulnerable households with people with disabilities;
 - b. for vulnerable households with people with health problems;
 - c. for vulnerable households with not enough labour to establish independent living.

213. The vulnerability officer will assess the needs and potential activities together with each individual household and will coordinate with the education, health, and livelihood teams of the Project to provide sustainable and livelihood improving support. Measures undertaken to support vulnerable people are individual, case-responsive strategies, which provide suitable support to specific individual needs instead of providing broad, general support programmes. Meanwhile, NNP1 recognises that some individual vulnerable persons have similar needs where the project can provide similar assistance. The programs will thereby extend over the period of project impacts.

6.5 Project-related employment opportunities

214. The Project's SMO is supporting the employment of PAPs through linking Company, contractors and subcontractors with PAPs looking for employment as well as in linking employment-related livelihood activities with the Project's construction work. Logistic-wise, PAPs in 2LR have difficulties to currently enter in employment with the Project, as the construction site is a day-long journey away. Of key importance is thus employment for some PAPs directly with the Company along livelihood activities measures. Two PAPs work with SMO as staff, 3 PAPs work on daily basis for supporting the 2LR office, 2 PAPs work with the Asset Registration Team and 2 others work for the Fish Catch Monitoring Program. Nonetheless, as outlined above, the labour management officer will support PAPs who would like to work directly at the construction site.
215. The Project has established a monitoring system to analyse employment statistics of PAPs in regard to the commencement of the constructions at the dam site from the second half of 2014. The Project's Social Management Office has hired a labour management officer to support and monitor this process. Further details are presented in the Labour Management Plan as part of the SDP.

CHAPTER 7 - Compensation Procedures

216. The entitlements and policies outlined above will be implemented along a set of steps and procedures. The steps of the compensation program for PAPs are visualized in Figure 15.

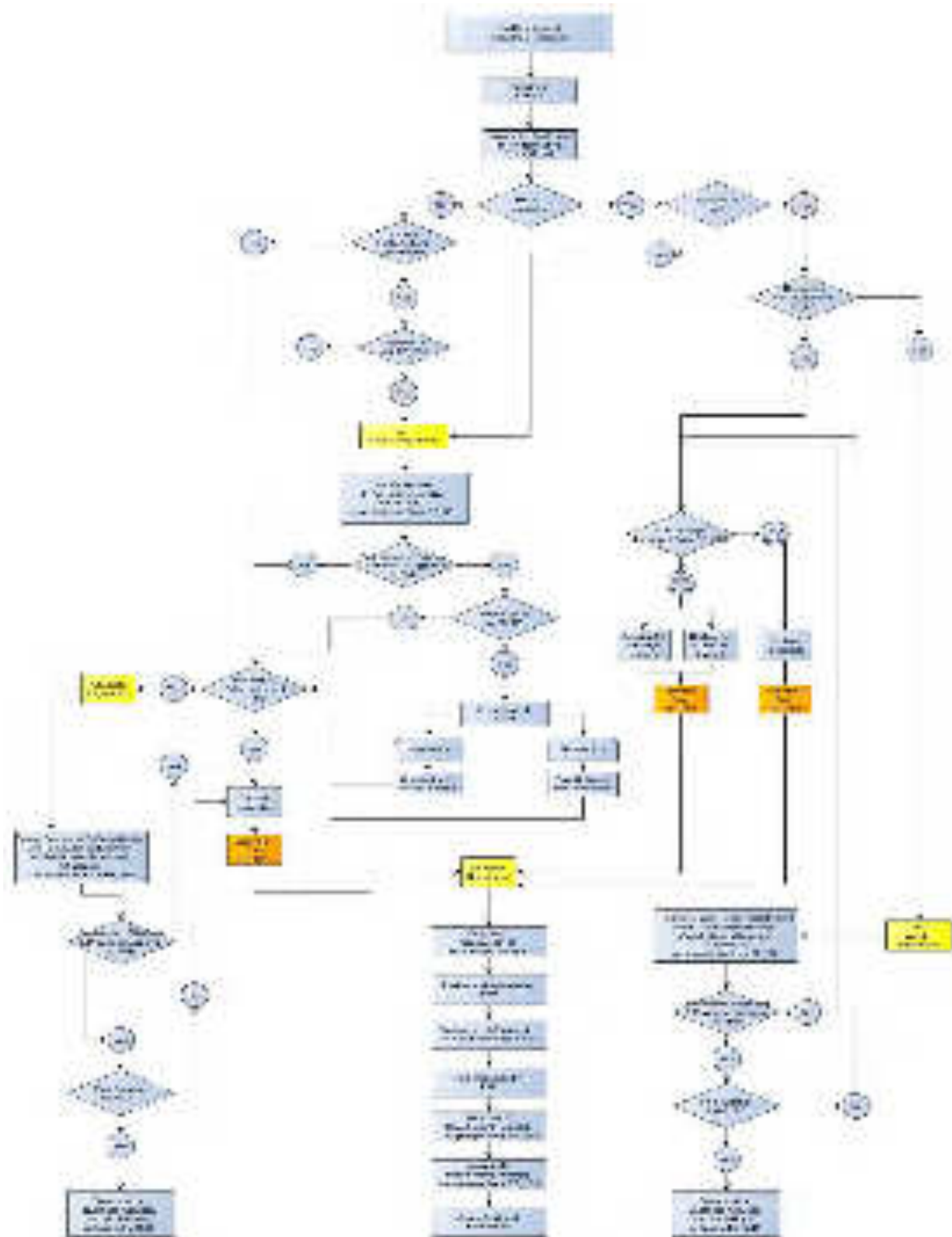


Figure 15 Flow chart of household choices and compensation program for Zone 2LR

7.1 Confirmation Survey

217. The Confirmation Survey is described in CA Annex C Clause 89,c, iii:

conduct a comprehensive and detailed confirmation survey of PAPs who are eligible to receive entitlements including without limitation:

1. *the identity of PAPs;*
2. *the identity of Persons who are entitled to receive transitional assistance and entitlements;*
and
3. *loss of assets, income and net income, housing, access to community resources, natural resources, and business opportunities and corresponding entitlements;*

218. The confirmation survey is considered the sole authoritative survey to identify all PAPs at the time of the cut-off date and all the assets of those PAPs that will need to be compensated. The Census has been implemented in Quarter 3 of 2014 and the Baseline Socio-Economic Survey in Quarter 4 2014. Asset registration was completed in Q2 2016.

7.1.1 Census

219. During the Census, the Project registered every household in each of the four 2LR villages with the names of all family members and pictures of husband and wife (see Annex B2). This allows correct and easy identification of households later in the process. At the same time, the Project also collected village profile information including village infrastructure as well as main economic activities. The assessment of impacts on each registered household is part of the asset registration.

7.1.2 Asset Registration Survey

220. Based on the census, the Project has started to conduct asset registration of all Zone 2LR private lands and structures impacted by the Project. Asset registration was completed in Q2 2016. The basis for the land assets registration is a Geographic Information System (GIS) using layers containing each asset registered, assets impacted and later on in the process all assets compensated. Through a coding system, each land plot is connected to a database which has been established and which contains all project relevant information from the PAPs. All information in the database is interconnected through a project DP ID as well as a Land Plot ID. Summary tables presenting survey data provide sex-disaggregated information.

221. Because land size and use determine compensation entitlements and compensation values, careful measurement of each asset is undertaken using both GPS and measure tape. Trees are individually counted and measured for size or age.

222. The asset registration is undertaken in the presence of both husband and wife, and owners of adjacent land plots must agree on the borders, even in the case where there are clear boundary demarcations such as fences.

223. The asset registration survey closely involved relevant District authorities (such as the Land department, tax department, and agricultural department), Village Authorities and community elders.

224. Prior to finalizing the asset survey in each community, all findings are presented during village level consultation meetings and are made publicly available for review by all villagers.

225. The GRM for resettlement and compensation makes use of the existing Village Grievance Committees. Furthermore, the Project has provided the contact details of the SMO's grievance officer in charge to

facilitate easy access to the GRM.

226. The asset registration is made using 4 copies: one copy for the DP, one copy for the District Coordinating Committee (DCC), one copy for the Resettlement Management Unit (RMU), and one copy for the Company to be kept in both hard copy and included in the data base. One fully signed set of compensation documents was handed over to the DP and kept by the DP in the project folder.
227. The flowchart of Asset Registration process is in Figure 16.
228. In Nam Youak village, 44 households initially refused to participate in the asset registration process. The PRLRC issued notification No. 694/ PG. XSB date 17/06/2016, to notify these 44 households of the need to register their assets by July the 10th, as per the flowchart of Asset Registration process is in Figure 16. The notification was disseminated to the 4 communities in 2LR, on the 23 and 24th of June 2016.
229. Following several rounds of consultations with these households and the issuance of Notification 694 dated 17 June 2016, 23 households decided to join the asset registration. The remaining 21 households continue to refuse to participate in the asset registration processes. All information on assets impact belonging to the 23 households who joined the asset registration process is included in the tables.
230. Notification 694, dated 17 June 2016, set the deadline for participation on asset registration on 10 July 2016. The households in Nam Youak were informed about this notification, its deadline and the next steps listed in the process of Asset registration, as clarified in Figure 16 and Figure 17.
231. Notification 694 and Figure 16 both indicate that if households continue to refuse to participate in the asset registration process, photos of the residential areas will be taken and measurements made based on satellite image. For agricultural lands, satellite imagery will be used to estimate the unclaimed agricultural area within the boundaries of Namyouak and allocate this among the refusing PAPs pro ratio to the number of households. The 21 households refused to allow project staff to take photos of their houses or any other assets and threatened with violence if anyone would attempt to do so. Therefore, the project only has satellite imagery of the unclaimed agricultural area within the boundaries of Namyouak. These lands are listed in the tables in a dedicated row labelled "21 HH in Nam Youak". Because only satellite imagery is available to assess assets of the 21 HH, no count could be made of trees, perennial crops nor buildings on the land.
232. The Company now considers the asset registration process completed; however, the Project, PRLRC, RMU and DCC will continue to engage with the 21 households to persuade them to join project activities, and the project will remain open to a change of mind of the 21 households in Nam Youak, to file a grievance on their registered assets and conduct a detailed asset registration.
233. Based on the advice of the PRLRC and DCC, secondary data, such as tax payment records kept at Hom district will be used together with the local knowledge from a committee comprising clan leaders, the Namyouak village chief and respected elders will be used to calculate the individual share of each of the 21 households of the total land area in Namyouak currently not claimed and ascribed to the 21 households. A household will be able to claim this share or change their mind and participate in formal asset registration.

7.2 *Data Base*

234. A database has been established for the SMO, containing all relevant data such as census and asset registration information. Each household has been provided a household ID (HH_ID) and each member of the household has been provided an individual ID (DP_ID) that is linked to their household

ID. This allows the project to follow changes in household composition, as people marry, divorce, die, have children, move away, or break away to form new households; and it allows the project to follow the social and economic conditions of individuals over time, and their involvement with the project. The population today and the population at the expected end of commitment (COD +10 years) in 2029 will be very different, and so the project needs a way to be able to track the many changes that will occur during that time to both households (with the HH_ID) and individuals (with the DP_ID) in those households.

235. The DP, through this unique DP identification, forms the core unit of this database. Connected to each HH_ID are all datasets of the household, including asset registration, compensation entitlements, socio economic & health data and later on during project implementation, compensation payments, trainings received, livelihood activities supported etc.
236. The database is used for both planning and reporting; updating of REDP and SDP, and supported with the hard copies (original documents) to form the proof whether CA obligations are fulfilled yet or not.
237. A section of the database also contains grievances filed and the progress and resolution of such grievances. As of the writing of this update, no grievance has been filed by Zone 2LR residents.

7.3 *Compensation Process*

238. While Land for Land is the preferred method compensation for PAPs, as clearly expressed in Social Safeguard documents from GoL as well as ADB and IFC, cash compensation is also a viable option as a result of specific requests from DP households. As described above, for vulnerable households, where even small impacts might have an extraordinary effect, the Project implements in parallel its vulnerable households program.
239. Affected households have now been informed of final unit rates, and a comparative package of either (i) full cash compensation; or (ii) relocation to Houay Soup with replacement housing, land and community services, plus cash compensation for any asset that cannot be fully replaced, will be prepared once asset registration is completed. Then each Zone 2LR household will be interviewed as part of the choice survey for expressing which package they want to opt for. After a period of at least 14 days for family discussion and consideration, the final decision will be made. The flow chart for the Resettlement Choice by PAPs is in Figure 17.
240. Following discussions with GoL at all levels (DCC, RMU and PRLRC), for those DP households who cannot or will not make a choice, the GoL will make the choice of relocation to the Houay Soup Resettlement Area and all resettlement facilities, including but not limited to housing and land, will be prepared for them. Those taking cash compensation will not be eligible to relocate to Houay Soup, but if they self-relocate within the Project Area of Influence (PAI) will remain eligible to participate in livelihood restoration programs and in activities of various sub-plans of the SDP. All households of PAPs are informed about the procedure and the date for final decision during the survey.
241. In case a significant number of PAPs will self-relocate together as a cluster of households within the Project Zone of Influence, the NNP1 will communicate with the ADB what type of specific sub-plan is required to adequately plan for this.
242. The indicative choice survey, conducted in May and June 2016 indicated that 15 DP preferred to resettle to the Houay Soup Resettlement Area, while 268 DP indicated that they preferred to organize their own resettlement (self-resettlement) and 154 households have not yet decided what they would prefer. The final choice survey will commence in Q3 and be concluded in Q4 of 2016.
243. If a household indicates during the final choice survey that their preferred method of Resettlement is self-Resettlement, then it is required to prepare an individual Self-Resettlement Plan, detailing their plan for their household self-resettlement and submit this to the RMU and PRLRC for their review, consideration and approval. If a plan is approved by the concerned authorities, then the project will make the compensation payments as per entitlement of the household. The project will assist households choosing self-resettlement with the preparation of a self-resettlement plan, including providing training and advice. See Chapter 7.8 for further details.

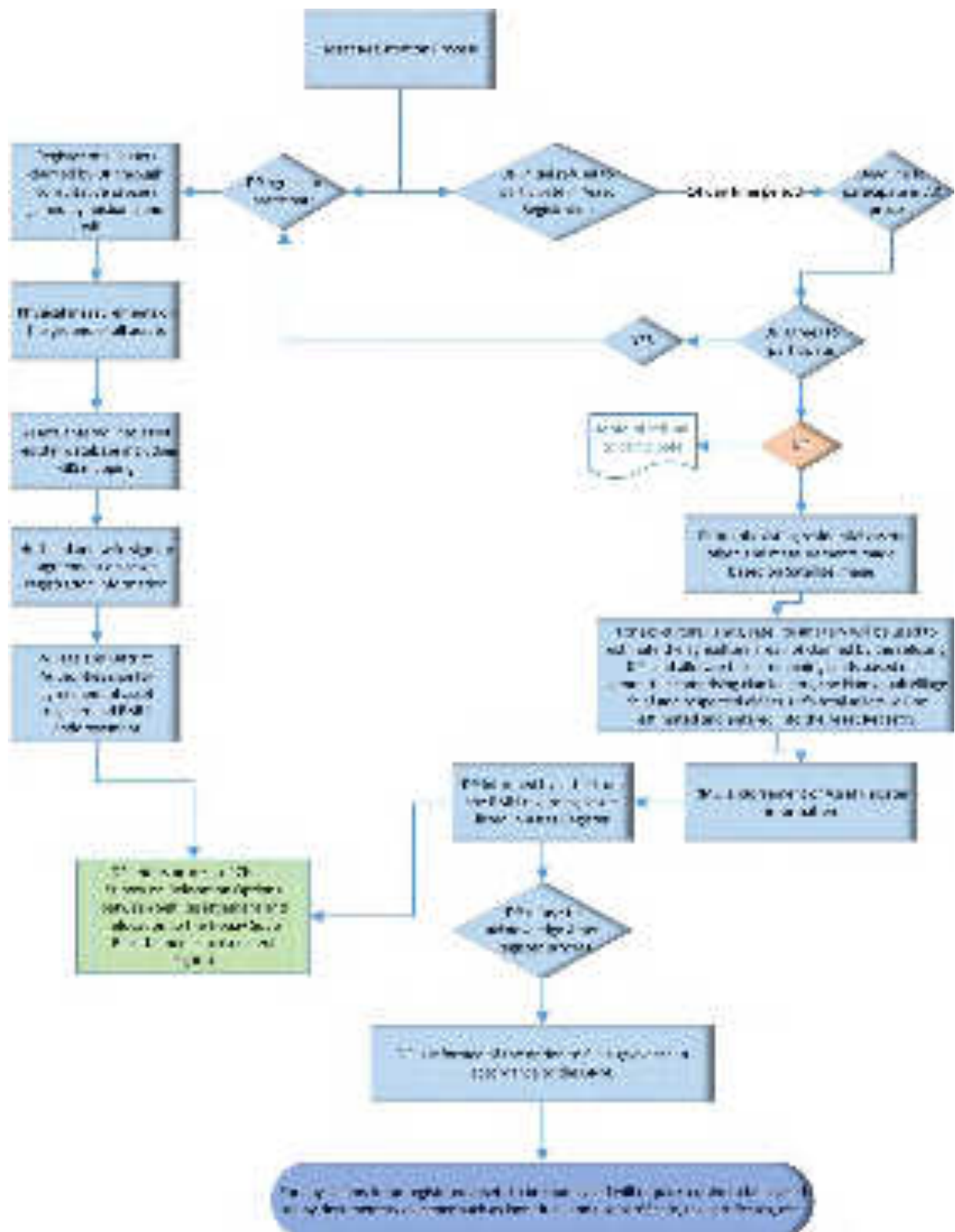


Figure 16 Asset Registration flow chart.

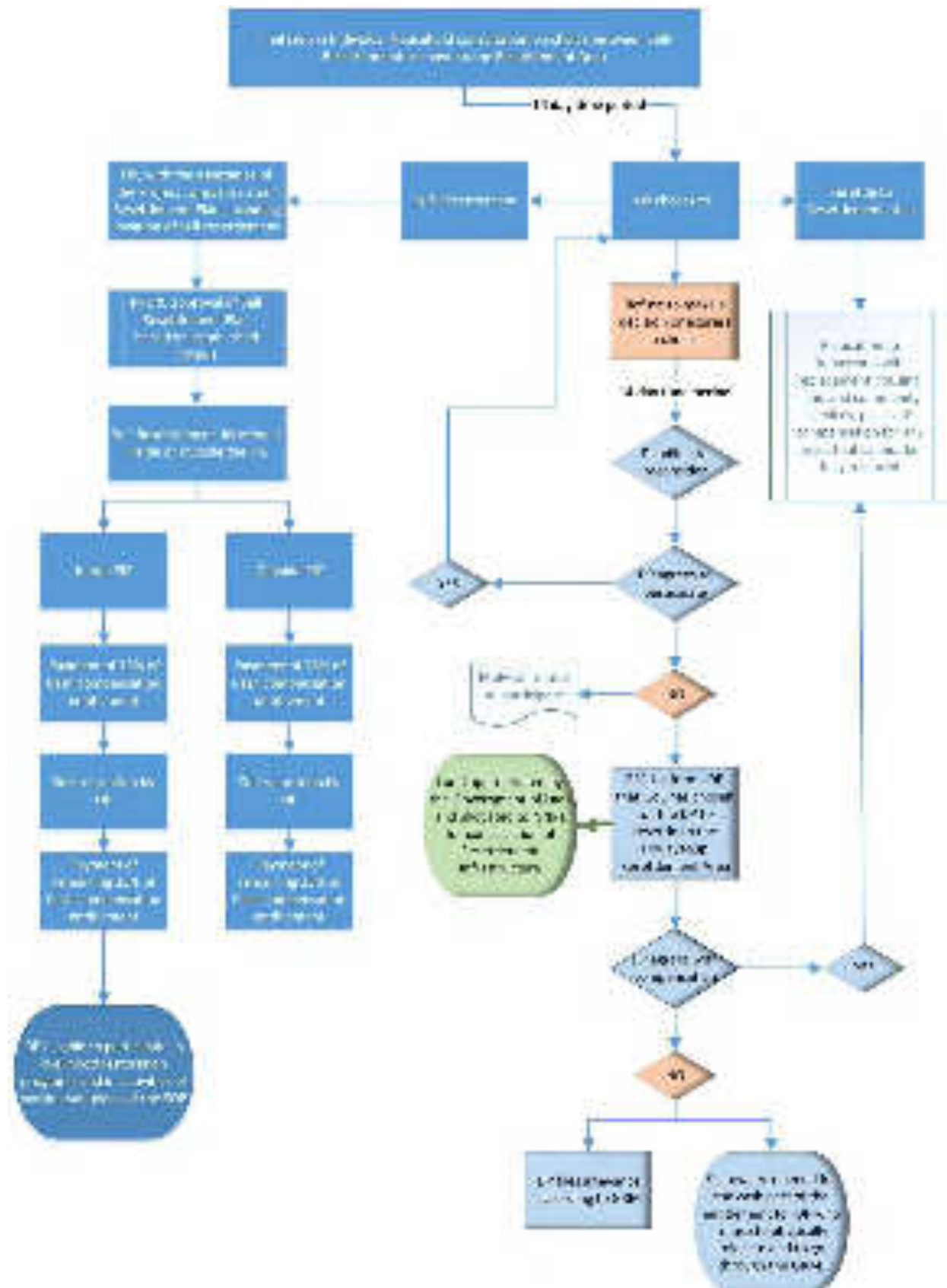


Figure 17 Flow chart on Resettlement Choice for PAPs.

244. For the 21 households in Nam Youak, who continue to refuse to participate in the asset registration process, the Government will follow the flowchart as per Figure 16. As described in Chapter 4, satellite imagery was used to estimate the unclaimed agricultural area within the boundaries of Namyouak and allocate this among the refusing PAPs pro ratio to the number of households. These figures will be used for compensation purposes. If the DP refuses the compensation value based on this, then they may opt to have their assets registered. If during the final choice survey, a household refuses to make a choice on their resettlement, the Government will apply the measures outlined in Figure 17 and inform them that they will be resettled to the Houay Soup Resettlement Area and receive the standard resettlement package there (including cash compensation for assets not compensated in kind).

7.4 *Compensation Calculation*

245. Compensation for each household is calculated using the finalised compensation unit rates outlined in Chapter 5 (with all details in Annex A) and the results of asset registration as described in the previous section. Compensation for each individual, impacted household is calculated and summarized through the use of the SMO database.
246. Following the calculation of these compensation values, the RMU representative(s) on behalf of the PRLRC reviews the calculations, checks them thoroughly for PRLRC approval as required by the responsibilities of the PRLRC and RMU detailed in the CA¹⁰.

7.5 *In-Kind Compensation Calculations*

7.5.1 **Land-for-Land**

247. As described in Chapter 5, households from each of the four 2LR villages are entitled to land-for-land options in the designated resettlement site in Houay Soup.
248. PAPs in 2LR villages own an approximate total of 181 ha of rain fed paddy fields and 358 ha of upland rice fields (source: 2016 Asset Registration). In the new resettlement site, the Project will prepare paddy rice fields with a higher productivity than rain fed and upland rice farming, additionally increased by an irrigation system which will be available after impoundment of the re-regulation dam. In the meantime, a provisional irrigation system will allow soil improvement outside the natural rice growing season between June and November.
249. The Project will apply a cross-over-replacement policy, i.e. rotational upland rice fields with low yields will be replaced by fixed paddy rice fields with higher yields. The ratio for cross-over-replacement (how much is one hectare paddy rice fields equivalent to in upland rice) is based on consultations between PAPs, RMU, and Project, taking into account average yields and crop cycles of both types of rice fields, based on the principle of replacement “land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken” (ADB SPS, Appendix 2, Paragraph 9). Following several rounds of consultations, the cash value of land is assessed as being the most suitable ratio for the calculations.
250. As outlined in the previous chapter, if households own large land holdings, replacement land would jeopardize the intention to also provide adequate land to households with little or no land holdings. Accordingly, the Project will compensate households with large land holdings with a package including replacement land and cash compensation for land exceeding the limits possible to provide in the resettlement site. This cash can then be used for further livelihood options, including acquiring additional land outside the HSRA based on a willing-buyer-willing-seller basis or leasing land inside the HSRA from poorer households with insufficient labour.

¹⁰Annex C Clause 90 d and Appendix 5, Clause 4 ii, Clause 5 viii, clause 9 ii and Clause 10 xii and Annex C, c,v.



Figure 18. New paddy rice field in the HSRA cultivated by Hatsaykham Resettlers (picture from livelihood program 2016).

7.5.2 House-for-House

251. All households choosing to resettle to the Project's designated resettlement site are entitled to a house according to criteria outlined in the Chapter 6. Based on these consulted and approved guidelines with PAPs and GoL, the Project developed several house designs as basis for further consultations. These designs are described in more detail in Chapter 8.
252. The Project has conducted several rounds of consultations and updates of these house designs. The adaptations brought them in compliance with cultural rules and preferences as well as PAPs' wishes for a productive and healthy residence with endorsement by the village elders and consequently by the individual households. Particular attention has been paid to ensure easy access for those households with disabled family members.
253. The Project will provide houses made of durable materials exceeding the quality of the current bamboo and wooden houses. The size of each new dwelling is dependent on the size of the resettler family. Each household will also be provided with pour-flush toilets and showers with appropriate septic tanks. As outlined above, in addition PAPs will be able to bring the materials of the current house to the resettlement site, with dismantling and transport organized and paid for by the Project in consultation with the PAPs.
254. House construction will start in the third quarter of 2016 with land levelling and after UXO surveys have been completed. It should be noted that the Project's designated resettlement site was not in the main bombing corridor during the American war, nor was it a battlefield area, and is not considered a high risk area. UXO clearance to date has not found any UXO or 'bombies'. The household will have

the opportunity to inspect the house before handover and to ensure its compliance with the agreed standard design chosen. Due to construction site health and safety regulations, house inspections can only be conducted jointly between NNP1PC and the household.

255. The houses will be built in compliance with Lao safety standards and building codes and will also be inspected by the related district authorities before handover.

7.5.3 Replacement of Community Assets

256. As outlined in the entitlement matrix above, PAPs are entitled to replacement of community assets. Currently, 2LR villages have few community assets, mainly some gravity fed water supply system, 4 primary schools and a secondary school, all of rather poor quality and one health centre. In 2014-2015 the Project improved schools and built a number of class rooms for temporary use. As outlined in the next chapter, the Project will provide in the resettlement site comprehensive public infrastructure, including road access, water and electricity supply, school and health centre, market and bus station, etc.
257. 2LR PAPs resettling in Houay Soup will have access (shared with Hatsaykham PAPs) to the forest area in the 6,108 ha resettlement site which includes designated protected forest areas. Such use will require some period of adaptation. The use of these areas with the Hatsaykham resettlers will be accompanied by shared community resource management activities.
258. Similarly, a fisheries co-management program will ensure that sharing of the fishery resources downstream of the dam but also on the future reservoir will be done in a productive, fair, and sustainable manner. A specific fisheries co-management plan is being prepared by the EMO, outside of this REDP Update.

7.5.4 Compensation of Outbuildings

259. The Project undertook an assessment of the preferred method of compensation for outbuildings: replaced in kind or in cash. It was decided that it is of mutual benefit to provide cash compensation rather than replacement assets for the following reasons:
 - PAPs are entitled to dismantle current outbuildings and bring materials to the new resettlement site; therefore, appropriate materials for outbuildings are available to resettlers already;
 - PAPs know best which outbuildings they need; different from houses, outbuildings are less complex to build and not dependent on engineering advice;
 - Cash compensation can be either used to upgrade these outbuildings or for other livelihood activities.
260. Should PAPs prefer replacement structures, e.g. for vulnerable households with insufficient labour force, this will be agreed on during individual consultations.

7.5.5 Compensation of Lost Business Opportunities

261. The Project will provide up to a maximum of 3-month compensation for businesses in 2LR villages affected by the period of resettlement based on the value of loss, assessed by the RMU. The Project will furthermore consult and take into account PAPs activities to facilitate resettlement during a period most convenient to the PAPs.

7.6 *Individual Household Consultation*

262. Prior to cash compensation payments, a family finance training program will be initiated, that uses both village consultation sessions and private consultations to raise awareness on family finances, methods of savings and prioritization of family income. This has already been undertaken for compensation due over the access roads for Hatsaykham households.
263. Individual household consultation will be conducted with each DP to inform the household, which includes both husband and wife(s) and possibly children of the household regarding their entitlements and compensation values based on their asset registration, entitlement matrix, compensation rates and the choice between resettling to the HSRA and self-Resettlement, for which there is the requirement to prepare a self-resettlement plan, as outlined in Chapter 7.8. A record of the meeting with each DP will be kept, including a photo of the PAPs attending the individual consultation. The PAPs will be informed regarding their right to submit a grievance if they do not agree with the information provided during the consultation.

7.7 *Bank Transfers*

264. Compensation payments will be made through a bank account¹¹, registered in the name of both husband and wife(s) and requiring dual signature or thumbprint. In case a DP has no such account, then the project facilitates all aspects of opening such a bank account starting at the consultation meeting, by assisting the DP to fill in the bank opening forms, requesting the required copies of document needed, such as a copy of the family book. Special assistance will be given to those PAPs who are illiterate or functionally illiterate.
265. Opening bank accounts for the non-literate might be seen as impractical. However, the methodology was tested for Access Roads and Transmission Line payments, including for non-literate Hatsaykham landowners. Results were very successful, and particularly appreciated by women, for whom it was the first time that an explanation of how much money was received in compensation, and how to use the account had been provided. Despite non-literacy, the Project has facilitated the process with the district bank to enable both husband and wife to sign via thumbprint if necessary. Additionally, the Project is undertaking functional literacy programs with PAPs. The project processes the request of the bank account opening at the nearest branch of the bank and makes the initial payments and deposits of opening the bank account without deducting for these from the compensation entitlements. Feedback from the Access Road compensation is positive as outlined in the access road audit report. Although the extra effort is mentioned by some PAPs (particularly men), the reliability of money being directly transferred is above all welcomed by women.

7.8 *Self-Resettlement*

266. Self-resettlement is the action of a household arranging their resettlement from their current location to an area other than the designated resettlement site, which is prepared by the project. When self-resettling, the household itself undertakes the tasks of identifying a new location for living, making their own arrangements for new accommodation, the physical relocation processes and livelihood restoration through acquiring a source of income through land or other means. Cash compensation with self-resettlement as an alternative option for resettlement to the HSRA was explicitly requested by

¹¹As per CA Annex C, Clause 89, c,v.

households in Zone 2LR during rounds of consultation leading up to obtaining Broad Community Support (See REDP 2014 for details on BCS and related consultations). The government, the project and the financing institution (including ADB) have accepted the concept of self-resettlement, and this is also reflected in the REDP 2014.

267. A household can have a range of reasons for opting to undertake their own resettlement and not moving to the designated resettlement site. In the Detailed Entitlement Matrix for zone 2LR (REDP 2014), there are several Eligibility Criteria for self-resettlement:

Key Definitions and Processes	Compensation Policy Zone 2LR
<p>7.8.1 0.10 Eligibility criteria for self- resettlement</p>	<p>Households under the following specific conditions are eligible for self-resettlement outside the designated resettlement site. Self-resettlement entails an informed decision by the PAPs to arrange all aspects of their resettlement to an area other than the Project’s resettlement site by themselves. NN1P gives the following conditions for PAPs opting for cash compensation and self-resettlement:</p> <ul style="list-style-type: none"> i. For self-resettlement the company will arrange cash compensation for all lost assets (including costs for replacement land titling outside the project area as part of the cash compensation unit rates) and a lump-sum payment for costs of resettlement (dismantling the house and transport of salvaged materials and household goods to the new residence) with the latter up to the equivalent costs of moving to the Project’s designated resettlement site.
	<ul style="list-style-type: none"> ii. Prior to self-resettlement, PAPs will be provided land- and non-land-based livelihood options built around opportunities for employment or self-employment in addition to cash compensation for land and other assets according to the self-resettlement request.. iii. PAPs relocating within the project area of influence as defined in clause 0.19 will be covered by the Project’s monitoring and evaluation program (poverty elimination test and maintaining economic parity test) and provided income restoration and livelihood development support, as necessary. the community baseline income statistics will reflect these cases accordingly. Since the costs for titling replacement land outside the project area are part of the cash compensation unit rates costs, the Company bears no responsibility for ensuring the processing of land titles. iv. Self-resettlement outside the project area of influence is a one-off, final package to the eligible household; the Company bears no responsibility for proving that the PAPs have reached their income targets after they have left the project area of influence as defined in Clause 0.19; the community baseline income statistics will reflect these cases accordingly. Since the costs for titling replacement land outside the project area are part of the cash compensation unit rates costs, the Company bears no responsibility for ensuring the processing of land titles nor obtaining any information regarding land titles.

	<p>7.8.2 A household is eligible for self-resettlement if it meets at least one of the criteria listed below:</p> <ol style="list-style-type: none"> i. A Project Affected Household will move close to relatives. In this case, the request has to be accompanied by a letter of these relatives, acknowledged and stamped by the relevant village authorities, stating that these relatives will accept into the village the people of the Project Affected Household and can prove their capacity to do so by providing a statement of their livelihood; ii. The Project Affected Household can provide either : <ol style="list-style-type: none"> a. a pre-agreement on land acquisition in an area other than the resettlement site sufficient to re-establish a livelihood that is at least above the National Poverty Line OR b. one or several working contract(s) of at least 10 months of duration with a (combined) salary high enough to support the applicant's family (benchmark is the National Poverty Line) OR c. sufficient capital and a business plan to start a business that has the potential to support the applicant's family (benchmark is the National Poverty Line) OR d. retirement using annual interest payments from their capital in a fixed-term-deposit account to support the applicant's family (benchmark is the National Poverty Line) iii. Members of the requesting PAP may be Civil Servants in the District of Origin and are requested via a written document by the relevant District Governor to continue their service in the district and therefore resettle in a community of the District of Origin. A copy of the letter needs to be provided to the Project. <p>7.8.3 Any other proof that full cash compensation will likely not disrupt the family's livelihood but allow an improvement. The PRLRC will assess the supporting documents and make a case-by-case decision based on data obtained by the Confirmation Survey and the document provided by the PAP and/or if relevant by third parties. Copies must be provided to the Project.</p>
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268. In coordination with the RMU, the project has developed a standard format for a self- resettlement plan (see Annex E), which PAPs will use to plan their self-resettlement. Project staff are trained on use of this format and will assist each household choosing this option in the preparation of their relocation plan during household consultations. Each plan brings together the core aspects of self-resettlement, namely:
- I. Identification of a new location for living
 - II. Identification of a new house for living
 - III. Arranging the physical relocation process
 - IV. Establishing a livelihood at the new location.
 - V. Use of compensation funds for the activities I-IV above
269. Each core aspect details the planning of an overall plan. For example, for selecting a location to move to, the DP is expected to consider and describe public facilities at the new location, including electricity, water supply, schooling and distance to the nearest district centre. Documentation needs to be obtained from the village authorities of the destination village that the household is accepted to come and live

there. For livelihood planning, the livelihood team will work through the different livelihood options with each household to provide an estimated potential income from different sources available at the new location. The compensation team will explain in detail the compensation package, provide training on family finances and assist the DP with preparing the expenditure plan of compensation funds, planning timing of activities, and estimating levels of main expenses the household will incur when implementing their self-resettlement plan.

270. Once a self-resettlement plan has been developed by the DP, they submit it to the RMU with a formal request for review and approval. The RMU will carefully review the plan according to the following criteria:
 - I. Is the PAP eligible for self-resettlement based on project criteria?
 - II. Are the full set of documents provided?
 - III. Is the self-Resettlement plan likely to meet income targets (above poverty and economic parity)?
 - IV. Is the self-resettlement likely to be implemented successfully?
271. Based on these criteria, the RMU will decide to:
 - a. Approve the self-resettlement plan; or
 - b. Request for clarification and/or additional information; or
 - c. Reject the Self-Resettlement Plan based on provided information
272. Following approval of a self-resettlement plan, cash payments are made to the bank account of the household. Following cash compensation payments, a self-resettling household will remain eligible to participate in the livelihood program. For those moving to Thathom district, the 2UR livelihood team will provide livelihood support. For those moving to Bolikhan or Hom district, the Livelihood team based in Paksan will provide livelihood support.

7.9 Documentation of Receiving Compensation

7.9.1 Signing of compensation forms for cash compensation

273. Payment of compensation through a bank account requires trust and several steps to complete the process.
274. Following the entitlement calculation for an individual household, review of this entitlement by the PRLRC & RMU and individual household consultation with the DP, compensation payment forms are printed in 4 copies; one copy for the DP, one copy for the DCC, one copy for the RMU and one copy for the Company to be kept in both hard copy and included in the data base.
275. The compensation forms will require DP's signatures and/or thumb prints (both husband and wife(s)) in two steps:
 - Initial agreement to the compensation amount and for it to be received on a specific bank account listed on the form
 - Agreement that the compensation is received in full in the designated bank account
276. During an individual household meeting with each DP, the DP is requested to review the relevant documents, and if they (husband and wife(s) or wife and adult child) agree, designate a bank account for receiving the compensation funds and make the first step signatures. As outlined above, the Project

assists PAPs to open bank accounts in both the husband's and wife's name, if such a bank account is not available; which is above all in more remote villages the case. All related costs are borne by the Project. The Project opens new bank accounts in banks with local branches in the respective village or district.

277. Following the first signature of the PAPs, the RMU as designated representative of the PRLRC as well as the DCC sign the compensation forms endorsing the compensation payments. Following the first signature of the PAPs and PRLRC approval, the Company signs for endorsing the compensation forms and transfers the compensation funds to the designated bank account of the DP, and updates the bank account to show to the DP clearly that the bank transfers have been conducted and that the compensation payment has been received properly and in the full amount.
278. Following the transfer of the funds and the updated bank account statement, the bank account book is returned to the DP. The DP (both husband and wife(s) or wife and adult child) is now requested to sign for the 2nd step on the compensation form, agreeing that the compensation payment has been received in full and that the bank account book has been returned to the DP. The DP will also be requested to sign a copy of the bank account statement for reference by the project that the funds have been transferred correctly.
279. One fully signed set of compensation documents is handed over to the DP and kept by the DP in the project folder.
280. In the case of rental agreements, two copies will be signed by both the Project and the affected person, one copy of the rental agreement being kept with the Project and the other by the land owner.
281. One key aspect of the compensation payments is that these payments are made to bank accounts, belonging to the PAPs and requiring dual signature for withdraws of. Many people, especially those living in the remote villages, do not have previous experiences with banking and compensation money may not typically be made to both husband and wife. Through the family financial training programs the project will create better understanding of financial institutions such as banks, how they work, how interest calculations are performed and the different services provided, such as saving accounts, fix term deposits, ATM cards etc.

7.9.2 Signing of compensation forms for in kind compensation

282. When compensation is provided in kind, such as for support assets for vulnerable households or as community contributions, clear records will be maintained when in kind compensation is handed over to the DP. Records of such in kind compensation will clearly state the compensation provided and for what impacts the compensation is provided, when the hand over date was, and the responsibilities of the DP following the hand over.
283. Compensation in kind for community land acquisition will be made as a result of the outcome of consultations and be based on prioritised wishes of a community. Such compensation typically takes the form of a Project contribution that will benefit all the community concerned such as improvements to school buildings or health facilities.
284. In-kind compensation forms are made in 4 copies; one copy for the DP, one copy for the DCC, one copy for the RMU and one copy for the Company to be kept in both hard copy and included in the data base.
285. One fully signed set of compensation documents, together with the land titles, is handed over to the DP and kept by the DP in the project folder.

7.9.3 Documented Hand-Over for Common Property Compensation

286. When compensation is provided for common properties in kind, such as school repairs or equipment, clear records must be maintained when common properties are handed over to the Community and or local government. Prior to handover of common properties, responsibilities for operation and maintenance will be clearly agreed with PAPs, and responsible parties for such works adequately trained and equipped, including establishment of mechanisms to fund Operation and Maintenance. Such handover events are regularly accompanied by a small ceremony.
287. Compensation forms combined with the Operation and Maintenance agreements, training record, and financing plan are made in 4 copies; one copy for the Community, one copy for the DCC, one copy for the RMU and one copy for the Company to be kept in both hard copy and included in the data base.
288. One fully signed set of documents is handed over to the Representative of the Community and to be kept by the Community in the designated records folder. In the case of Houay Soup, the handover will initially be to PAPs from Hatsaykham. Once PAPs from 2LR villages have relocated to the site in 2017, they will also be required to endorse the signed documents, indicating joint responsibility for operation and maintenance of community assets.

7.10 Special measures for vulnerable households

289. The Project follows Lao and ADB standards regarding vulnerable household, putting them into the Project context. Five types of vulnerability are addressed by the overall design of the social programs:
 - Indigenous People/Ethnic Groups. These form the majority of PAPs in the PIZ overall. Some households in 2LR villages affected by resettlement to Houay Soup are classified as vulnerable.
 - The issue of PAPs without legal title to land or property is addressed by acknowledging customary rights to lands and compensating accordingly.
 - Women are among the most vulnerable in remote areas. Should any vulnerable household be further identified in the course of time, they will be eligible for the specific measures in the Project GAP. For example cash compensation is transferred into joint bank accounts in the names of both the male and female heads of households.
 - Households below poverty line (currently extrapolated at 230,000LAK per person per month¹²) will be brought above poverty line in compliance with the poverty elimination test outlined in the Concession Agreement along the Livelihood and Income Restoration Plan outlined in the REDP (Section 4.22.2).
 - The issue of PAPs without land titles is also resolved for those opting to move to HSRA by providing them with secure tenure for their agricultural, garden and housing land parcels.
290. Additionally to these categories of vulnerability, the Project uses the following context-adapted definition of vulnerable groups other than the groups discussed above, based on outlined national and international standards:
291. Vulnerable Households are households who might suffer disproportionately from the loss of fixed and movable assets, other assets, and production base; or face the risk of being marginalized from the effects of resettlement; and specifically include:
 - Single female headed households with dependents and low income;

¹² At exchange rates as of this REDP-U2LR update, this amounts to US\$29.

- Households whose members are socially stigmatized as a result of traditional or cultural bias inside the community
 - Households living in poverty with not enough labour to make use of general pro-poor activities outlined above;
 - Landless households with no alternative sustainable income from regular employment or businesses
 - Elderly households with no means of support
 - Households with disabled or invalid persons;
 - Households with members with severe and long-term diseases having a substantial impact on the households productivity and/or expenditure
 - Households with members of households addicted to substance abuse.
292. A vulnerability check-list is attached to the Asset Registration Form to screen all impacted households on a first step, before the Project's vulnerability officer is engaged to identify vulnerable households and implement specific mitigation measures together with the PAPs. The Project's social monitoring team supported the vulnerability officer in this task. Also, all other Project staff (above all the Asset Registration and the Community Relations staff) are trained to identify potential vulnerability and inform the vulnerability officer, so that she can investigate further.
293. Support measures include additional household consultation meetings, inclusion of additional family members into the family consultation if there are single headed households, special times to organize household consultation meetings to meet the time availability of the household, and exploring the option of providing livelihood trainings at dedicated education centres for handicapped people, as well as other solutions and assistance, as required.

7.11 DP Training

294. Training on a range of topics are provided to the PAPs, some specifically related to Compensation and some more general, but with specific impacts on the Compensation methodology.
295. Family financial training is a term broadly used for trainings that concern finances. For NNP1, conducting family financial trainings for DP is important because specific compensations are made in Cash and because significantly impacted PAPs will be offered alternative livelihood restoration activities which are based on a market economy, requiring good understanding of finances.
296. A range of training session will be conducted on appropriate times during the project, with key messages repeated at regular intervals and integrated in other training sessions if impacts are significant.
297. Other areas of family finances that have been and will be discussed include things like purchases of large household goods made on a monthly payment contract, mobile phone plans etc. With knowledge, people will be able to make decisions that are suitable for their family situation.

7.12 Further Ethnic Group and Gender Arrangements

298. To address the needs of Zone 2LR PAPs, the Project has prepared ethnic and gender development plans which are included in the REDP/SDP. The following support measures are additionally carried out during the planning, implementation and monitoring of the land acquisition and compensation activities:

- The DCC includes representatives of the district offices of the LWU and LFNC. The members of the DCC also include the chief and/or deputy chief of 2LR villages.
- The DCC consults individually with the PAPs and their families to ensure that all understand the NNP1's policies, entitlements and procedures regarding land acquisition, compensation and resettlement; and, to identify the specific needs and concerns of male and female PAPs. Meeting individually with these PAPs will also ensure that women particularly the ethnic women in the households understand and feel comfortable to speak up.
- The compensation payment forms are signed or affirmed by both spouses if the land or other affected assets are conjugal property.
- All information to PAPs affected by construction is distributed to men and women equally; and, the DCC and/or Village Development Committee (VDC) takes appropriate steps, as necessary, to encourage women to participate in any public meetings about the sub-project.
- The DCC collaborates with the Project's Environment and Social Division (ESD) to ensure that women and members of the ethnic PAPs are targeted for information about resettlement and land acquisition activities.
- All members of DP households regardless of ethnicity or gender are equally eligible to apply and, depending on their qualifications, be considered for employment by the contractor(s) for civil works for NNP1 Project.
- If there is employment associated with the 230kV-T/L or construction, new jobs are reserved as much as practicable for qualified women regardless of their ethnicity.
- All databases and monitoring indicators for land acquisition, compensation and resettlement activities disaggregate data and other information by gender and ethnicity.

7.13 Chosen Resettlement Options

299. As outlined in the previous chapter as well as in detail in the overall REDP, Zone 2LR PAPs have several choices to make before resettling:
1. Split of Households for
 - a. Large families and / or joint households with one husband and several wives
 - b. Newly wed sons and daughters still living with their parents
 - c. Sons and daughters with children still living with their parents
 2. Destination of resettlement
 - d. Resettlement to the Project's designated resettlement site
 - e. Self-Resettlement within the Project Area of Influence
 - f. Self-Resettlement outside the Project Area of Influence
 2. If resettlement to the resettlement site
 - a. Traditional Lao Loum / on-storey raised house style
 - b. Traditional Hmong / on-storey non-raised house style
 - c. Mixed Style / two-storey house style
300. These decisions have to be taken sequentially and furthermore, each decision has certain conditions, which have to be presented by the Project, proven by the household, and agreed on by the RMU/PRLRC. This is a time-consuming and complex process, as outlined in the flowchart above (Figure 17).

301. This process is has started in early 2016 and be concluded by the end of Q3 2016. Consultations with 2LR villagers until now show that a possibly significant number of households may wish to self-resettle although but with no final decision yet. The Project plans at this stage still remain based on a 90% resettlement scenario, including the necessary private and public infrastructure described in the next chapter. Once PAPs see the actual development of the HSRA and actual figures in each package, they may change their minds. A final date will be made for each household according to a consultation and decision making schedule of 40 days after the initial consultation. During this period, any family member is free to seek further clarification and/or advice from the RMU or the Project.
302. The indicative choice survey, conducted in May and June 2016 indicated that 15 DP preferred to resettle to the Houay Soup Resettlement Area, while 268 PAPs indicated that they preferred to organize their own resettlement (self-resettlement) and 154 households had not yet decided what they would prefer. The final choice survey will commence in Q3 and be concluded in Q4 of 2016. The experience in Hatsaykham showed that initially a high number of PAPs requested self-resettlement during the indicative choice survey (80%), but during the final choice survey this number reduced to 50% and later 6 Households requested to be allowed to change and resettle at the Houay Soup Resettlement Area, further reducing the number of self-resettlers. Therefore, the Company will continue to develop essential community infrastructure in the HSRA for Resettlers from 2LR, until the final choice survey has been completed.

7.14 *Benefits Sharing*

303. PAPs from 2LR villages will gain from Project activities, other than from the overall compensation process, including but not limited to the following measures:
- i. Agricultural activities improvement trainings
 - ii. Training on market- and off-farm activities and expertise
 - iii. Setup of marketing structures together with the PAPs
 - iv. Provision of high quality public infrastructure currently not available (e.g. all-weather-road, water supply, market, bus station, etc.)
 - v. Business opportunities as employees and entrepreneurs in connection with the Project
 - vi. 2-million USD scholarship program (to be shared with other directly impacted communities)
 - vii. Health program
 - viii. After CoD participation in the community development fund according to regulations to be set up in coordination between the Company, PAPs, and GoL.

7.15 *Transitional Measures*

304. Transitional assistance measures are as outlined in the overall REDP measures taken by the project to facilitate the transition by PAPs from their old situation in 2LR area to a new situation in Houay Soup. Such transitions require specific attention, to make them go in as smooth a way as possible, minimizing adverse impacts on the PAPs. These transitional measures include:
- Transitional allowances for a period of 3 months;
 - Five year Rice Supplement Program; and
 - Income substitution and transfer costs during re-establishment in case impacts cannot be

mitigated by proper planning and provision of facilities by the Project (the Project's primary aim)

7.15.1 Transitional allowance

305. Transitional allowance will be provided for a period of three months starting from the month of physical resettlement in the first half of 2017 and consists of:
- Essential nutrition items, such as cooking oil, salt, high protein items such as meat, eggs and other items as advised by a Nutritional expert
 - Cash support for electricity supply fees
 - Cash support for water supply fees
 - Cash support for solid waste collection fees
 - Rice support, milled rice, based on a provided consumption per household of 0.7 kg per day per adult and 0.5 kg per day per child (under 15 years).
306. For vulnerable households, transitional allowances will be extended up to 1 year.



Figure 19. Female Hmong staff explaining the transitional allowance during consultation display in 2LR communities (field work November 2015).

7.15.2 Rice Supplement Program

307. The Rice Supplement Program was negotiated with Resettlers¹³. Rice will be given as supplement food source to every DP resettling to the designated Resettlement Area during a transition period of 5 years, starting at 100% supplement for the first two years and gradually phasing out over subsequent years (see Table 70 below). The Rice support will be based on the number of eligible people in the household. Rice will be handed over at the beginning of each month, with households certifying the receipt of rice support. A registration system will be established to guarantee that every household is receiving the appropriate amount of rice.
308. This in-kind Rice Supplement Program is based on a provided consumption per household of 0.7kg per day per adult and 0.5kg per day per child (under 15 years). , Adaptations on household numbers will be regularly implemented, to take into account both new born babies, passing away of the elderly and children reaching an age of 15 years and requiring the rice allowance of an adult.

Year	Support of total rice requirements per person
1 (2017/18)	100 %
2 (2018/19)	100 %
3 (2019/20)	75 %
4 (2020/21)	50%
5 (2021/22)	25%

Table 70 Rice supplement program quotas

¹³ See Annex A, Overall REDP.

CHAPTER 8 - Houay Soup Resettlement Site

8.1 Resettlement Site Selection

309. The Project together with PAPs and public authorities investigated several potential resettlement sites between 2007 and 2014. Some sites were rejected by PAPs, while others were rejected by GoL for political or security reasons. The following resettlement sites were shortlisted:
1. Hat Gniun, Bolikhamxay Province (for Z3)
 2. Houay Soup, Bolikhamxay Province (for Z3 and 2LR together)
310. Given the inclusion of Hatsaykham in the administration of Hat Gniun, moving closer to the main village was a preferred solution. However, villagers from 2LR opted for Houay Soup as their designated resettlement site, and both Zone 2LR and Zone 3 villagers preferred to co-reside with other Hmong rather than with the Lao majority population of Hat Gniun. PAPs from Hatsaykham thus requested to join the 2LR PAPs and resettle over the river into Houay Soup, a request accepted by the Project. Details of the resettlement site selection process can be found in the overall REDP, section 7.5.1.
311. As outlined above, development of the Houay Soup resettlement site will be done in two phases: the first phase for early resettlement of Hatsaykham and the second phase for subsequent resettlement of the four villages of 2LR. Holistic planning is necessary on the overall development of the new town and accordingly, these two phases often overlap. The following sections will include remarks regarding the timing of development. For the construction schedule and budget for Zone 2LR, please see Chapter 14.
312. In 2014 the Project received formal endorsement from the Department of Land Administration (DoLA) allocating 1745 hectares (ha) of the 6108 ha Houay Soup resettlement site to be allocated to PAPs for agricultural and housing areas. 4250 hectares (ha) of the 6,108 ha is classified protected forest¹⁴. NNP1PC's Social Management Office (SMO) successfully applied for the "de-gazetting" of a further 648 ha, resulting in a total of 2,393 ha (1,745+648 has) to secure a large enough area for the housing and agricultural areas of resettled PAPs. In 2015, the Project obtained Land Use Rights over the remaining 3,715 ha of protected forest – this area will retain its designation and remain as a headwater conservation area, but some livelihoods activities will be permitted for DP use, including gathering non-timber forest products (NTFPs) and livestock grazing. Figure 20 shows the boundary of the total Houay Soup resettlement area, together with dedicated land use zones. See Annex E for the above mentioned land documents.
313. Legal and regulatory requirements for the additional de-gazetting of 648 ha has been confirmed by DoLA after field verification of the boundaries. The remaining protected forest will have a Houay Soup Forest Management Plan (FMP) which will be subsumed into the Project's overall Watershed Management Plan (WMP).

¹⁴ The area is named as "Protection Forest" in Decree on the Protection Forest No 333/PM (Lao PDR). The existence of this protection forest should have been, but was not, identified during the project preparation stage, and the Department of Land Administration (DoLA), the responsible department under the Ministry of Natural Resources & Environment (MoNRE) was unaware that it had been designated as part of the 6108 ha allocation to DPs under the Concession Agreement (CA).



Figure 20 Showing the resettlement site boundaries plus land use zones

8.2 *Prior Land Use*

8.2.1 **Early surveys**

314. A preliminary survey of existing land use at Houay Soup resettlement site was carried out in June 2011, finding existing land uses of 5.6 ha of paddy, 50.1 ha of grassland and some upland areas under shifting cultivation.
315. After receiving land claims by land users at Houay Soup, a second survey was conducted in October 2012. The purpose of this land use survey was to determine the extent of lands already claimed and/or used in the resettlement site that may require compensation, reallocation, or livelihood restoration under the Resettlement and Ethnic Development Plan of the Project, and also to identify the households that claimed or used those lands.
316. The 2012 survey found that households in several communities currently use land in Houay Soup, including from Hat Gniun, Hatsaykham and Somseun villages. Forty-four (44) households claim a total of 70.5 ha of land, most for upland rice cultivation with only small areas for paddy or commercial tree cultivation.



Figure 21 Land use patterns in Houay Soup in 2012 (Source: Field survey 2012)

8.2.2 Confirmation Survey

317. In preparation of compensation for prior land use in the resettlement site, numbers from earlier surveys were verified and updated in 2014. In addition to villagers from Hat Gniun and Hatsaykham, also villagers from Somseun claim land use on a strip along the river. Somseun is located 20 km downstream of the designated resettlement site with no village border crossing into the resettlement site and therefore not considered as a host community. Nonetheless, claims for limited land use upstream have been found to be valid. These claims are addressed in the Zone 5 REDP update. In general, the number of claimants increase each time a consultation takes place. Some of the land has already been compensated under the LACP-TL, which extends across Houay Soup. The Project compensated the remainder of the 450 ha of the 6,108 ha of acquired land in Q1, 2016.
318. There has been no loss of housing in the creation of Houay Soup. Furthermore, the project did not identify any secondary structures in the future resettlement site. Details and updated numbers are included in the Zone 5 Updated REDP-U5 (February 2016). Figure 22 shows the locations of updated prior use land claims in Houay Soup.

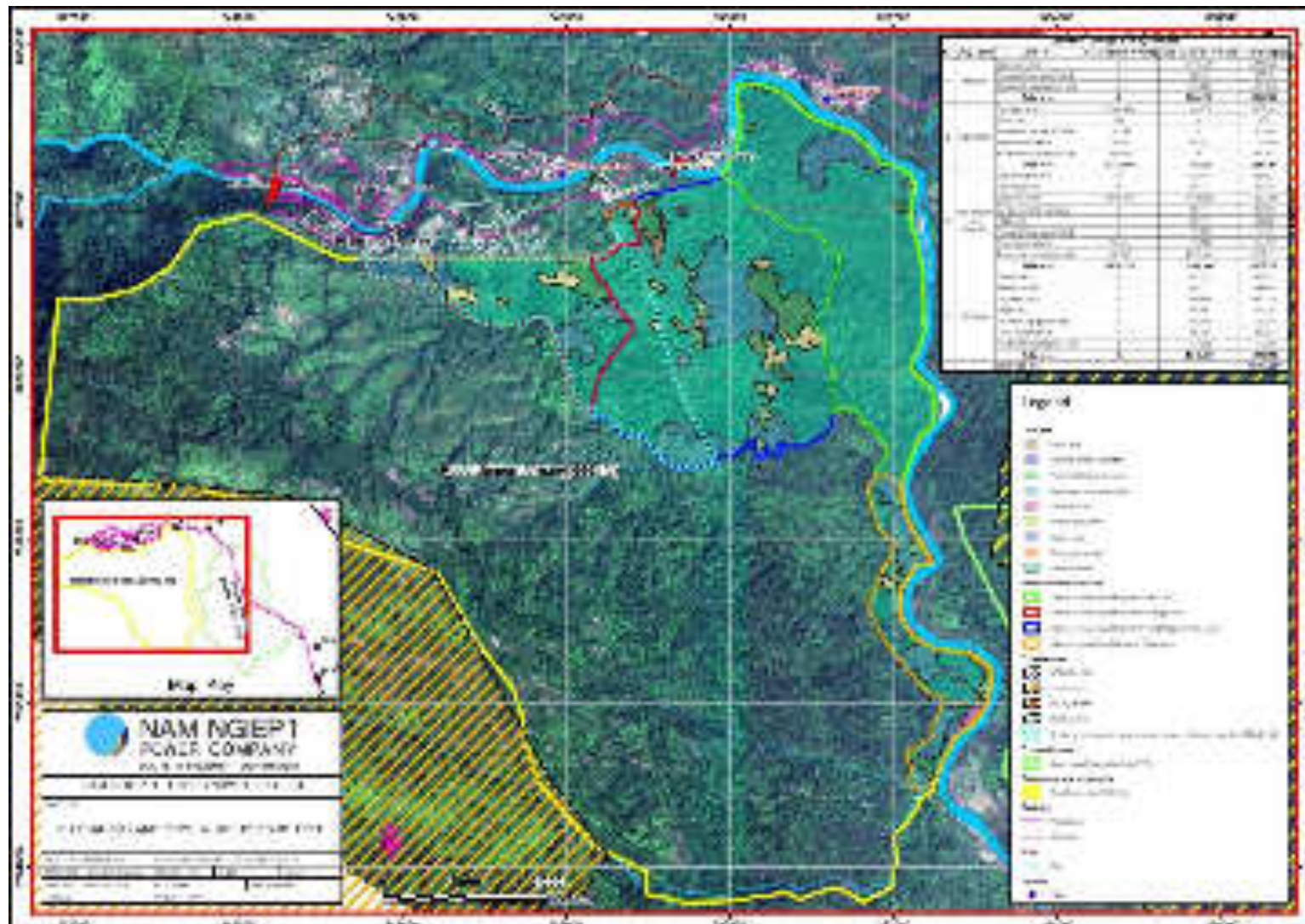


Figure 22 Updated prior land use claims in the Designated Resettlement Site (2016)

8.3 *Participatory Land Use Planning and Zoning*

8.3.1 **Land Use Planning and Zoning as Step Approach**

319. While land use is highly dependent on the natural characteristics of a resettlement site, equally important are the social and cultural preferences of the resettlers. To assess these social and cultural preferences, a close consultation process has been necessary, which is taking several steps:
- i. Step 1 is the selection of the resettlement site itself as outlined in section 8.1,
 - ii. Step 2 is the general assessment of the resettlers land use preferences as outlined in the next section below
 - iii. Step 3 is the alignment of the land use preferences with the natural characteristics of the resettlement site into a draft layout
 - iv. Step 4 is the discussion and adaptation of a layout together with the PAPs
 - v. Step 5 is a more standardized Participatory Land Use Planning (PLUP) following physical relocation
 - vi. Step 6 is the conclusion of the PLUP after several years when PAPs can compare experiences at the resettlement site.
320. Steps 1 to 3 have been concluded, while step 4 is ongoing until physical resettlement of all households is completed. The location for paddy rice fields is fixed by geographic constraints and already zoned following public consultations with PAPs from both Zones 3 and 2LR; inputs from PAPs are required to identify other land use zones within the resettlement area, including:
- i. Residential Area: the PAPs chose their residential area in July 2013
 - ii. House siting and orientation according to customary practice chosen in August/September 2014
 - iii. Upland areas for cash crops
 - iv. Grazing land
 - v. Community forests
 - vi. Water resources and fisheries
321. Step 5 is planned for 2017/2018 after 2LR villages have joined Zone 3 village in the resettlement site, while Step 6 is scheduled for 2020/2021. PLUP tools have been developed and applied in Lao PDR and in other hydropower projects with good results, and have included support from the National Agriculture and Forestry Research Institute (NAFRI).

8.3.2 **Assessment of overall village preferences**

322. Community consultations were started by the Project from July 2007 for 2LR communities (and the other villages impacted by the Project) to understand villagers' preferences regarding the configuration and composition of the new resettlement village. Results of the participatory mapping exercises reveal that the PAPs prefer the following:
- Orientation of the new village along a road system with each house having access to the road. Infrastructure with access based on a road network will provide a more stable link to the outside, and with it access to markets and new livelihood opportunities. Orientation of individual housing units to be sited according to custom and adjacent to pre-existing neighbours and family members as agreed.

- Improvements such as electricity, access to running domestic water, and private toilets.
 - Each household prefers to have its own garden area.
 - Community buildings and facilities, such as a school, market, clinic, and village hall.
 - The creation of religious structures, which should be located outside the grouping of houses, as is the practice in traditional villages;
 - Availability of sufficient land for rice paddies and other fields to grow corn, sugar cane, or other crops, and plots for vegetables surrounding the village.
 - Sufficient grazing land to support existing livestock.
323. The people of the five communities resettling to Houay Soup also indicated that residential areas should form the core of the village, which would then be surrounded by gardens and fields, with forests located at a greater distance from the core.
324. This kind of plan creates a sense of security and allow for continual social interaction. The actual plan of the new resettlement villages depends on the specific location and topography of the new sites, and on discussions held with villagers as to where the various houses, community buildings and fields should be sited. Figure 23 presents the layout for Hatsaykham, together with the layout for other 2LR households which are under discussion.



Figure 23 General layout of HSRA.

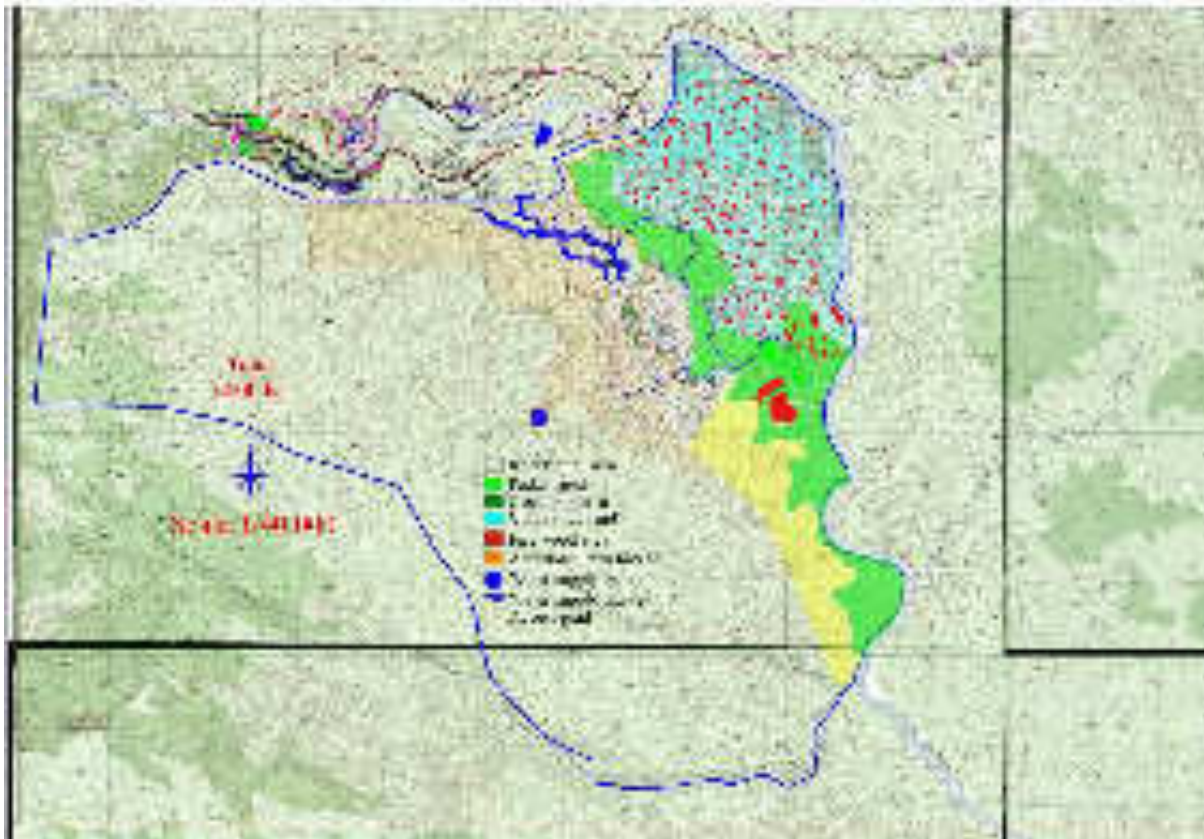


Figure 24 Resettlement village layout for Hatsaykham and Zone 2LR PAPs

325. When ideas for the new village were presented to the villagers in graphic form, their first reactions were positive since many people welcomed the lifestyle improvements. Their main concern was the potential effect on food security. Historically communities in the study area are not all used to a market economy, and are more accustomed to exchanging or selling forest products and buffalo complementing rice production. Hence, the opportunities to continue and improve livelihood activities such as gardens, fruit trees and livestock in their new lives will help to provide even greater food security, in ways that are already familiar to them and would build on their existing food-producing practices. For further details, see Chapter 9 on livelihood activities.

8.3.3 Land use distribution in the resettlement site

326. As already noted, a resettlement site of 6,108 ha will be prepared for PAPs to consolidate the 4 villages at Zone 2LR (maximum 481 households) and 1 hamlet from Zone 3 (maximum 39 households) into one consolidated and separate administrative unit. Development will take place in 3 phases: (i) Phase 1 resettlement of Hatsaykham Resettlers (20 households); (ii) Phase two, preparation prior to completion of the choice survey for 200 households estimated to arrive from Zone 2LR; (iii) Phase three, final development based on the total numbers of PAPs from Zone 2LR based on the outcome of the Final Choice Survey.
327. At least 420 ha of the 6,108 hectares will be available for paddy fields (more than now being used as paddy in the existing communities) as well as additional rain-fed land for upland crops, vegetable gardens, fruit and commercial tree plantations, and community forests, to assure continued sustainable livelihoods, as described in Chapter 9. The Residential Area was moved after request from PAPs and

actual land allocation boundaries (except paddy fields) will be re-drawn during the different steps of land use planning outlined above.

328. In discussions with PAPs, initial concepts of the land use for the 6,108 ha were expressed as follows:
- Be protected against flood by a saddle dam and be accessible through an all-weather-road bridge connecting to the access road
 - Have paddy fields with irrigation channels (420 ha), upland rice field (150 ha) and other cultivated land including rubber and other commercial tree plantations (820 ha)
 - Have pasture land (600 ha), and forest for firewood (300 ha)
 - Have additional area secured as protection forest for NTFPs
 - Have housing and community facilities (50 ha) built on slightly higher elevations
 - Have cemetery areas selected by PAPs
 - Include adequate household and community infrastructure, including electric supply, water supply, and garbage disposal areas
329. Following the actual resettlement of those households moving to the HSRA, participatory land use planning will be implemented, to address, amongst other things, if additional agricultural land can be allocated to individual Resettlers households and/or farmer groups and/or should be reserved and allocated in the following years for the natural growth of the Resettlers (next generation households).

Items	Pre Project Status (Z3+2LR)	New Site
House	Mostly Wooden/Bamboo House	New House of equal quality but at least on minimum standard will be provided; due to other Project's having problems to acquire sufficient high quality wood, the Project will provide the option of concrete housing structures.
Rice fields	Average 0.69 ha/HH of non-irrigated paddy fields; 0.82 ha/HH of upland rice fields	Available average of 0.8 ha/HH with irrigation system; 0.29 ha/HH of upland rice fields; the initial legal entitlements will be slightly lower, to allow for a margin of error in data; practically, the number might be even higher, depending on the number of PAPs opting for self-resettlement; furthermore, entitlements will take into account household sizes
Other cultivated land	Average 1.77 ha/household	Average 1.56 ha/HH of cultivated land including tree plantations
Access Road	Difficult access in wet season	All-Year-All-Weather Road
Water supply	Surface water and public standpipes	Piped to the household.

Electricity connection	Not Available	Electricity connection to each house
Community buildings	Low- and medium standard buildings	High-standard buildings
Accessibility to other communities and markets	Difficult due to remote areas	Close to the provincial capital and further on to the national capital

Table 71 Community concept of land development of Houay Soup

330. The advantage of connection to the grid electricity and pipe water supply system is explained to PAPs during consultation meetings. Also clearly explained is the need to pay for these improved services. When grid electricity was made available in Hatsaykham in 2014, such electricity bill payments did not provide significant difficulties. Household connections to the water supply system and payment of a small fee for this water did not result in issues in Hatsaykham village. Transitional support for Resettlers include monthly support (for the duration of 3 months) in cash for (i) electricity bill, (ii) water supply fees and (iii) garbage collection fees. This is clearly discussed during consultation meetings. If an issues arises, PAPs will be taken to nearby Thahuea to see how this community organizes these requirements.
331. Actual allocation of private land will follow two principles outlined in the CA: land-for-land compensation and poverty alleviation. As PAPs from Zone 2LR do not have to confirm their choices for different options (cash or land) until late 2016, final numbers will be provided after these choices have been made. It is difficult to consistent housing standards in wood, as it is increasingly difficult to acquire suitable hard wood for houses in Laos. The quality of the wood used for replacement housing is frequently mentioned as major issue in other resettlement projects. In addition, traditional Hmong style does not need large wooden beams to raise a house on stilts, the preference being for a solid structure on rammed earth. Recent legislation which cracks down on timber cutting and sale makes wood even more difficult and costly to obtain. Therefore, this Project will provide the option of concrete housing structures. Community structures follow the regulations of the GoL line agencies (Ministry of Education/Health/Public Works and Transports/Home Affairs, etc.) for their respective standards and the Project coordinates with these agencies in the finalization and implementation of infrastructure development plans.

Type of Land Use	Existing Land Use		Houay Soup Resettlement Area	Remarks on Houay Soup
	2LR	Z3		
1.Private Land				
1.1 Residential Area	44 ha	22.90 ha	70 ha	800 m ² x 520 households plus village infrastructures like Access Roads and electricity and buffer space
1.2 Paddy fields	264 ha	30.70 ha	420 ha	Ave. 0.8ha/HH with irrigation channel; actual land allocation based on number of household members
1.3 Upland Rice Fields	313 ha	140.56 ha	150 ha	Ave 0.36ha/Household
1.4 Other Cultivated Land	680 ha	127.29 ha	820 ha	Ave. 1.58ha/HH (as with paddy fields, initial legal entitlements will be slightly lower, but all available land will be allocated to the PAPs and their communities)
1.5 Fish Pond	3 ha	1.76 ha	N/A	It is suggested that the irrigation storage can be used as communal fish pond
1.6 Other land use	1,432 ha	N/A	N/A	A large section of Houay Soup will remain forest land to be managed and used by the community
1.7 Buffer of land for future use			400 ha	
2. Public Land				
2.1 Community facility	4 ha	-	*	School, clinic, village hall, etc.
2.2 Cemetery	11 ha	1.2 ha	12 ha	
2.3 Grazing Land	263	67	600 ha	For 3,000 cattle (a survey on carrying capacity for livestock in Houay Soup will be conducted following pasture preparation, before final determination of how many large animals can be taken to the resettlement site)

Type of Land Use	Existing Land Use		Houay Soup Resettlement Area	Remarks on Houay Soup
	2LR	Z3		
2.4 Drinking water pond	-	-	N/A	
2.5 Fish ponds	-	-	N/A	
2.6 Disposal Area	-	-	1	
2.6 Pilot Plant	-	-	5	
2.7 Forest for Firewood	-	-	300	Ave 1 m ³ / person-year
2.8 Production Forest	2,510	NA	3,222	
Total	5,540	714,62*	6,000	

Table 72 Comparison of land demarcation inundated areas / resettlement area

8.3.4 Maintenance of public facilities

332. Next to land use, community infrastructure is a key aspect of the resettlement site. While the infrastructure itself is defined by national standards (e.g. school standards by the Ministry of Education, health centre standards by the Ministry of Health) a major issue is not just provision of community infrastructure, but also its operation and maintenance. Different line agencies (e.g. Dept. of Health, Dept. of Education) are supposed to include infrastructure maintenance of those buildings such as clinics, schools and teachers' housing, as part of their annual budgets. In reality no such funds for maintenance are forthcoming, and villages in Laos with such infrastructure typically have to source funds for maintenance of all public buildings from their own pockets.
333. The Project is aiming for a sustainable and independent resettlement site with no expectation of dependence on external organizations, following the stabilization phase. Therefore it will work together the new inhabitants of the resettlement site to develop models of financing operation and maintenance of infrastructure. This includes several options:
- Operation and Maintenance by a commercial operator, financed by fees to be provided by the inhabitants of the resettlement site
 - Operation and Maintenance from a village fund; in this case there will be discussions as to how this village fund can be financed. The Project will establish market booths, which the village can rent out to achieve income for village activities
 - Operation and Maintenance from the Project's Community Development Program; in the event that it can be implemented without creating dependencies and reduced ownership
 - Operation and Maintenance via neighbourhood groups
 - Operation and Maintenance by self-funding measures, for example fees at the bus station for its maintenance

334. None of these systems is ideal, but the selected model and its implementation depend on costs to operate and maintain, and even more so by the attitude of the resettlement site inhabitants towards these measures. The PAPs and the Project will decide and implement measures for each facility and adapt these where necessary over the resettlement preparation and stabilization phases. The Project will provide the necessary technical training for maintenance of the water supply system.

8.4 *Work undertaken to date*

335. Site preparation activities started in the 2015 dry season with UXO clearance and ground pegging of the resettlement area for Hatsaykham following the legal assignment of the resettlement site to the Project and compensation of prior land users. In the meantime, the Project has prepared detailed plans incorporating comments and suggestions of PAPs, described below. The Project hired a Hmong architect as team leader to allow a better understanding as well as easier communication with PAPs on their needs and aspiration. He is continually sharing his designs with the PAPs and integrating their recommendations to enhance PAPs' ownership on the resettlement site design and development.

8.5 *Conceptual Design of the Resettlement Site*

336. The residential area in Houay Soup is within the vicinity of productive land allocated to the PAPs. Thus the tradition of an agricultural based economy is still largely retained, while providing new economic opportunities. Ethnic and traditional cultural practices have also influenced the overall planning in land use zoning and orientation of housing.
337. The conceptual designs for the NNP1 resettlement sites have been laid out based on available space of the Houay Soup and consultations with PAPs as described. Enough buffer space is additionally provided for future growth in the number of households in the resettlement site as well as for the different space requirements of different house types, particularly for large joint households opting to split.

Item	Description
Replacement House including related components	Space for up to 750 ¹⁵ houses at Houay Soup Resettlement Area including 1 toilet per house (and 1 septic tank per property), one-point connected to the water supply system incl. water meter, and one connection to the electricity grid incl. electricity meter, and access to the village road system
Road	Access road Main road within community Alleyway between houses ensuring overhanging roofs do not encroach on neighbours' space
Market	A market; 320 m ² roof covered and 1,000 m ² opened area
Bus terminal	A bus terminal adjacent to the market

¹⁵ Estimated maximum case scenario, based on the number of HH impacted and possible split of 1 HH into 2 as per CA entitlement. Final number will be determined after final choice of people from 2LR to resettle to Houay Soup or to self-resettle.

Item	Description
Health centre	A Health centre (79.5 m ²) combined with 1 staff housing block for staff accommodation (46.75 m ²) and 1 latrine block with 4 latrine rooms of which 1 room is adjusted for use by disabled people.
Community hall and Village office*	A Village hall (567 m ²) 8.5.1 A village office and museum (180 m ²) combined together with the village hall. 1 latrine block with 6 rooms
School and related structures	1 pre-school with 3 rooms 1 primary school 5 rooms plus teachers office 1 secondary school 7 rooms plus teachers office 1 teachers' house for 10-12 teachers 8.5.2 2 Latrine for students (6rooms / each) 2 latrine for teachers (2 rooms / each)
Community playground	1,600 m ² playground and sport facilities next to the school
Water supply	Natural gravity water piped system with a connection for every household
Solid waste drop-off centre	Area 15000 m ² drop-off centre
Power line	22 kV, 6.5 km in total connected from Ban Hat Gniun

Table 73 Key infrastructure at the Houay Soup Resettlement Site. Final size will depend on the number of HH who choice to resettle to the HSRA.

338. Main components of the land use in the resettlement site include paddy fields, cash crop or upland crop fields, grazing land, community NTFP forest, firewood collection forest, conservation, cemetery, and residential area including community buildings and structures.
339. These lands, infrastructure, and housing will be provided in numbers and size appropriate to the number of people resettled in the community and taking into consideration future population expansion (2nd generation households). The current national population growth rate is 2.1% per annum, with a rate of 1.3% projected by the UN for the coming years. The following calculations assume a maximum case scenario with an extraordinary strong average growth of 5%; even if it is expected that the actual number will be closer to 2.5%, combining the national trend with previous population growth rates in the villages as discussed in the SIA and a birth control and birth spacing promoted by the Health Program. The maximum case scenario is based on a 10 year estimate after COD, with 910 households and 6,450 people in the resettlement site. In the 6,000ha, the additional 36ha necessary for an extended residential area are available around the planned residential area. With the expansion going outwards on the edges, the extension will not interfere with the overall design of the resettlement site.
340. The Project intends to develop all available paddy field land and allocate it to the PAPs. Considering a minimum productivity on two-season irrigated rice fields of an annual total of 6 tonnes per hectare on 420 ha, this results for the projected number of 6,450 people a production of 390 kg of rice per person per year from the paddy fields, or 1.1 kg of rice per person per day. While thereby achieving self-sustained rice sufficiency, it should be highlighted that the Project additionally invests in livelihood programs on alternative income sources, including livestock, cash and consumption crop production,

tree plantations, and off-farm activities as well as a strong focus on education, including a large scholarship program as outlined in the SDP.

341. Proposed initial land allocations for all Resettlers amount to 2,360ha (including fire wood forest) out of the 6,108ha, leaving approximately two thirds of the resettlement site not directly taken into cultivation or for residential purposes. The Project will also plan public areas of a size to accommodate the projected growth, leaving enough empty space to increase infrastructure volume depending on actual growth; for example a large school area of 2 hectares with additional empty space next to it as outlined in 16. Expansion of public infrastructure facilities can be funded from the Community Development Program Fund, available from COD until the end of the concession period.
342. The Community Development Program Funds are intended to cover Community Development Programmes of the neighbouring communities including Zone 2UR, HSRA and the host community. If there is clustered self-resettlement officially established by the GOL, GOL and the Company may decide that part of the funds can be allocated to improve public services and infrastructure in these clusters. The procedures on how the Community Development Program Funds shall be managed and allocated will be decided by the Company and GOL. The details on what projects or activities the Community Development Program Funds will support, shall be determined by each respective beneficiary community in consultation with the Company. For the portion allocated to the HSRA, the PAPs who will decide to move to HSRA will be involved in the decision of the allocation of the funds to priority items, decided on an annual basis. NNP1PC will discuss and agree with the relevant GOL authorities and HSRA community after they have moved to HSRA. The Company will initiate discussions with the Government on the fund management procedures and plan for the utilization of the funds early in 2018 – and at least not later than six months before COD. Training of the respective committees involved is intended to start after finalization of these procedures and could start as early as in the second half of 2018. The preparations for payments, such as action plan preparation and activity prioritization are likely to require time and the first payment will therefore most likely be made in the second half of 2019.

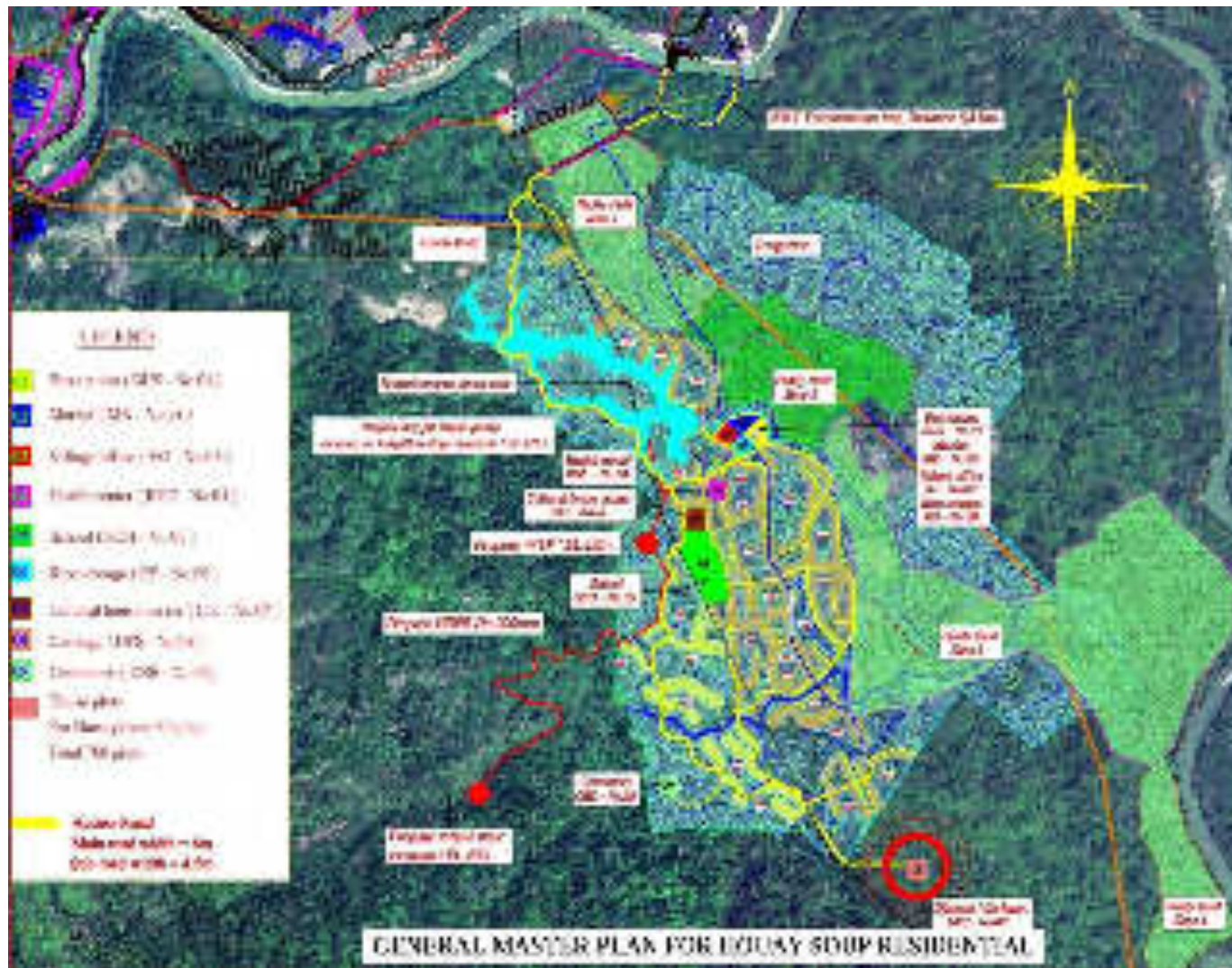


Figure 26 Conceptual design of Houay Soup residential area

Item	Number	Area/ Unit(m ²)	Required area(m ²)
1. House plot ¹⁶	750	800	600,000
2. Market	1	10,000	10,000
3. Bus terminal	1	10,000	10,000
4. Health centre	1	5,000	5,000
5. School & teachers' house	1	50,000	50,000
6. Village office & Village Hall	1	10,000	10,000
7. Playground	1	1,600	1,600
8. Solid waste drop-off centre	1	15,000	15,000
Total			701,600

Table 74 Spatial Requirements of each type of Building or Infrastructure of Houay Soup Resettlement House designs

343. **Project affected persons** from Zone 2LR are entitled to new houses at the resettlement site and to select a house design of their choice. Since those who are to be resettled are almost all Hmong, the current housing of Hmong was studied for preliminary house designs.

8.5.1 Current house designs

344. Existing Hmong houses can be divided into 3 broad categories¹⁷:
- Category I: 3% of houses have roofs made of a type of tiling, corrugated iron or wooden walls and cement floor.
 - Category II: About 20% of houses are single storey or raised slightly above ground (15%) with corrugated iron roof (19%), with wooden wall (45.5%) and with wooden (15%) and cement floor (10%).
 - Category III: Most of the houses (77%) are single storey (85%) with bamboo roof (75%), with bamboo wall (55%) and with earthen floor (76%).
345. House size:
- Most of the houses (69%) have an area of 30-69 m².
 - 9% have an area less than 30 m², and
 - About 22 % have an area more than 70 m².
346. Traditionally, the Hmong house is rectangular in shape and built on the ground, not on stilts like the houses of many other groups (including the Lao Loum). Materials used are wood, bamboo, and have a thatched roof of grass, bamboo, or wood. More prosperous households are increasingly building concrete housing with corrugated iron or tiled roofs. There is a fireplace in an alcove at one end of the house for cooking and heating, and usually the other end of the house partitioned for sleeping quarters for the entire family.

¹⁶ Estimated number, based on the number of HH impacted and possible split of 1 HH into 2 as per CA entitlement. Final number will be determined after the indicative choice survey

¹⁷ Based on the 2011 Survey

8.5.2 Resettlement house designs

347. The final designs have been prepared in consultation with the PAPs and took into account their customs and needs, house orientation, accommodation requirements and who wishes to live next door to whom. Designs were drafted based upon the trend of housing in Laos which has evolved over time. Based upon these designs, female PAPs have already informed the project that they would want the kitchen areas to be separate but attached to the houses, or in some cases a separate structure. Modern and more durable materials will be introduced into the house design, as required per CA Annex C. PAPs will also have the right to recover materials from their dismantled houses and structures (with no deduction in compensation costs or rights to new structures) and have those materials transported to the resettlement area at the project's cost.
348. Houses of Hmong communities in other areas who already use durable materials were studied and the model houses based on those developed. The model dwelling developed from these investigations and consultations are illustrated in Figure 27 until Figure 30. Higher structural standards will be applied independently of the original house quality. A household currently owning a house of low standards is eligible for a replacement house with improved standards. The size and type of house is based on the number of members of the household. A minimum space of at least 7.5m² per person will be provided, but the average space will be more than 10m² per person according to the house sizes outlined in the Detailed Entitlement Matrices. Current analysis shows a preference for bricks or concrete blocks as wall materials. PAPs are eligible to choose between 3 designs of housing tentatively presented with this report. Depending on the size of family, PAPs are entitled to a small, medium, or large house. Shown below are the two more common designs (ground floor and raised houses).



Figure 27 Housing designs for replacement housing – Small sizes



Figure 28 House models – Medium sizes



Figure 29 House models – large sizes

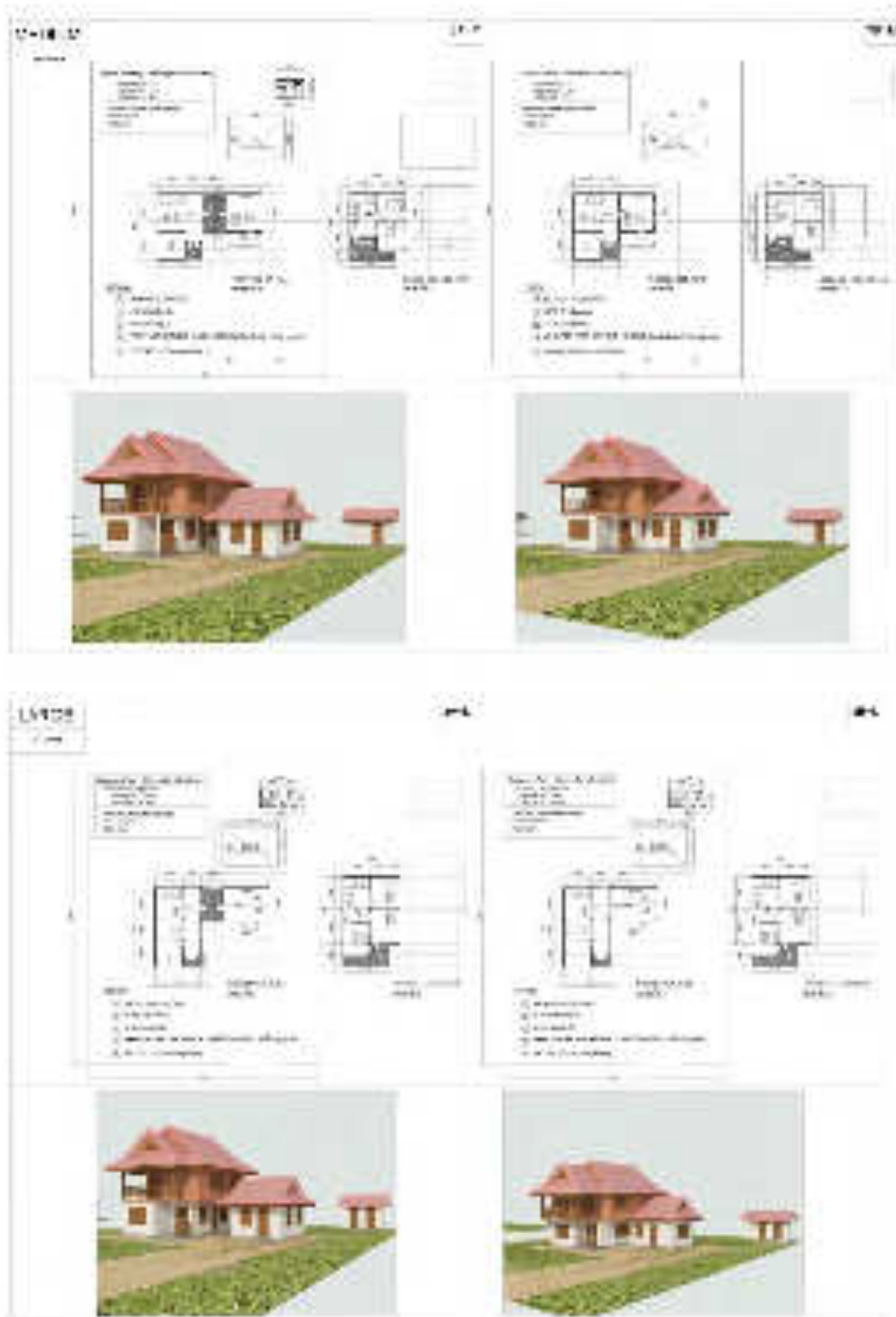


Figure 30 Two-Storey House models – large sizes

8.6 *Access Road and Transmission Line*

8.6.1 **Access road**

349. An existing dirt road between Nonsomboun and Hat Gniun of 21.2 km has been improved and upgraded for NNP1 construction and will be maintained during commercial operations. Details have been included in the LACP-AR. Another access road will be constructed between Hatsaykham and the main dam site on the left bank of the Nam Ngiep River and this will also be maintained during commercial operation. A temporary access road will be constructed between the saddle dam and quarry site on the right bank of the Nam Ngiep River and a temporary access bridge will be built at the exit of the gorge of the Nam Ngiep River for construction purposes. A permanent access bridge is being built downstream of the regulation dam to cross from the main access road into the Houay Soup resettlement area. The total length of the access road between Paksan and Houay Soup is around 50 km, which will become accessible in one hour by car after completion of the above works (see Figure 31).
350. Furthermore, the Project will develop several roads and tracks in the resettlement site:
1. Village roads to link all houses with public infrastructure and the access road
 2. Agricultural tracks to link agricultural land with the residential area
 3. A road to the new cemetery after defining together with the PAPs which area is suitable as cemetery
351. Temporary access roads to Houay Soup will be prepared prior to the relocation of Hatsaykham in 2016, even though they might still be modified until a final handover of access roads will take place later on, with final sealing of roads only planned for 2017, once all heavy equipment for development of the resettlement site has left the area.
352. A temporary river crossing mechanism is currently installed (barge), until the opening of the access bridge in Q3 of 2016.

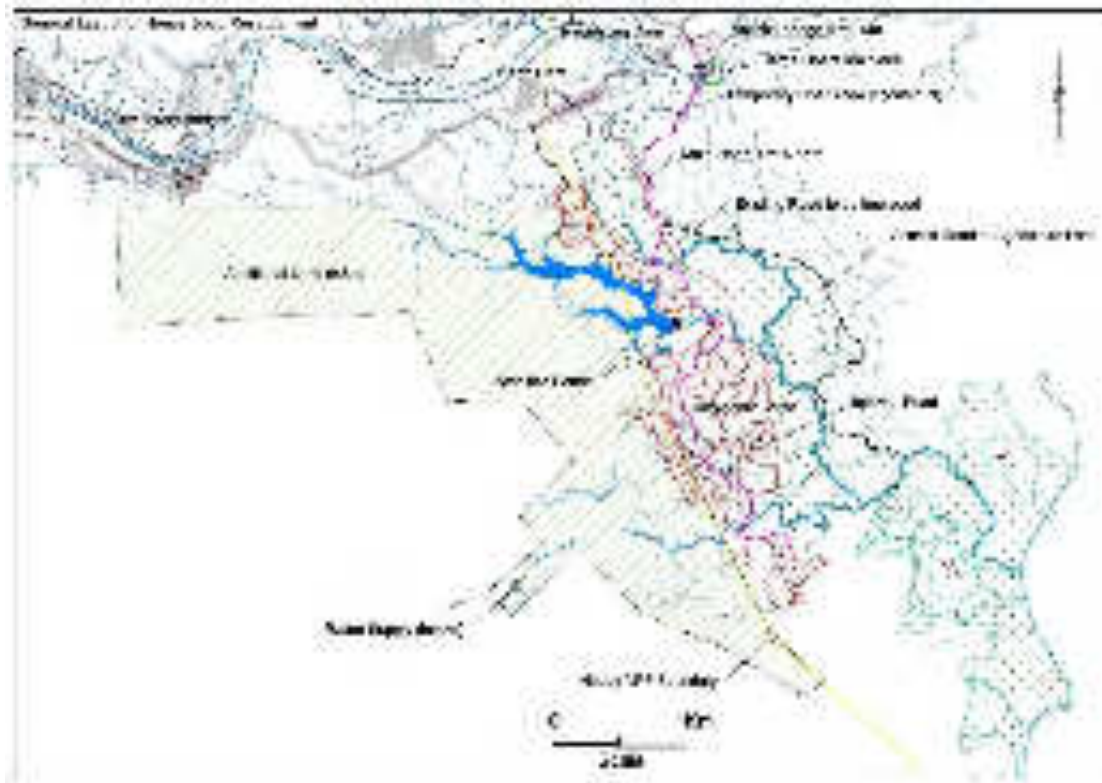


Figure 31 Basic Route Access Road

8.6.2 Transmission and power supply line

353. A 22kV transmission line will be upgraded along the access road to supply electricity for NNP1 construction, which will be utilized to supply electricity to Houay Soup as well. This transmission line will continue to be effective after conclusion of main construction, as it also provides electricity to the host communities. The Project will contact the local distribution company to facilitate the installation of towers, power distribution lines and connection of each household and arrange for separate electricity meters to be installed in each household. While the transmission line will not be in place for the construction of houses, it is planned to be ready for the resettlement of PAPs of Hatsaykham (see Figure 32).

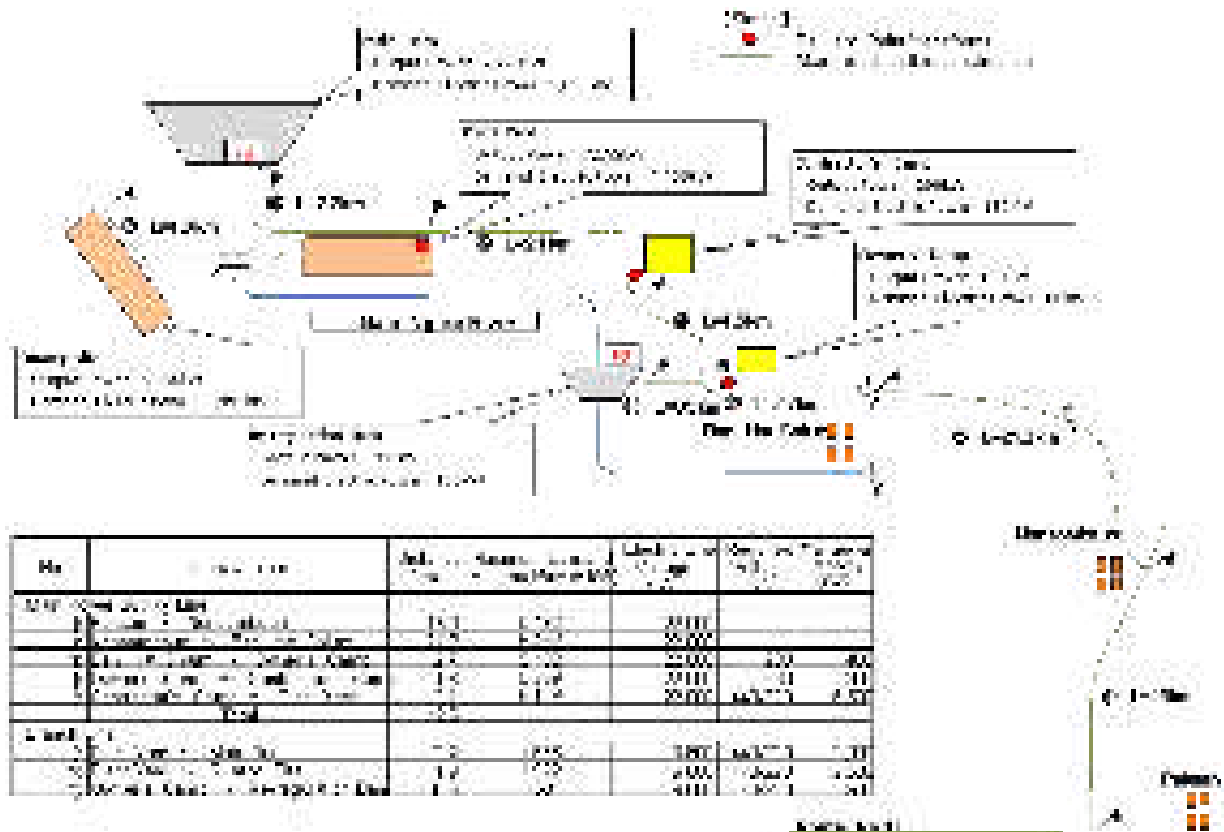


Figure 32 Draft Power supply plan for NNP1

8.7 Public Infrastructure

8.7.1 Water Supply System and Sanitation

354. Water supply system is to be provided to each house by water pipes, each house having 1 tap and a water meter. The water source is mainly a stream upstream of a tributary of the Houay Soup River to the west of the residential area. The watershed for this pond is approximately 6 km².



Figure 33 Weir site for domestic water supply, and water quality

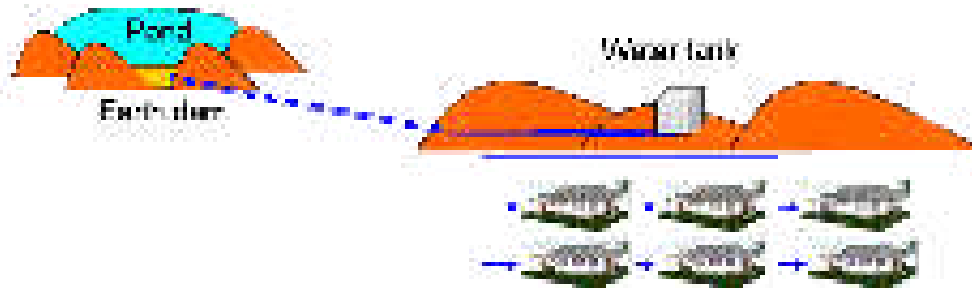


Figure 34 Domestic water supply plan

355. . The supplied water will be conveyed through a water pipe line with the natural gravity to a water treatment plant using sedimentation and sand filters, followed by a storage tank for the treated water. From the storage facilities, a piped distribution network will deliver the water to each house in the residential area. The daily water demand is designed for 100 litre/person based on the water demand forecast in 2025 for the rural areas of Lao PDR.
356. **Water quality, treatment and distribution:** Water quality of the Nam Ngiep River and streams around the planned residential area has been checked. The main concern in water quality is pathogenic coliform bacterial (generally indicated by total coliform counts). Bacterial contamination is largely caused by the grazing of livestock along the river as well as contamination of water use by upstream villages. To protect water quality, livestock will be prohibited by fences (installed by the project and further maintained by the community) to enter the watershed area for the water supply ponds.
357. Water will be treated by a sedimentation and sand filtration system to remove debris and impurities especially in the rainy season. The water treatment system is located at the connection point of the residential area of EL 230 m. After sand filtration, the water will be stored in a water storage tank..
358. Because the development of the overall water supply system requires time, the Project has installed wells with pumps and piped distribution system as temporary water supply.



Figure 35 Example of water tank and tap water supply at Theun Hinboun Ex HPP

359. **Sanitation System:** Septic tanks of concrete will be provided for each household for wastewater and sewage. They will be provided for individual houses. Maintenance shall be conducted on a commercial basis, to be implemented in consultation with the community. An IWASH program under the leadership of a local CBO, Rural Development Agency (RDA) will conduct Community Led Total Sanitation and School Led Total Sanitation programs, to raise awareness on the use of latrines.

8.7.2 Public Buildings

360. **School:** Nursery, elementary and lower secondary schools will be provided. The design of the school buildings will follow the standard design set by the Ministry of Education, as seen in Figure 36.



Figure 36 Standard school styles in Lao PDR

361. The facilities to be provided are:
- i. 1 pre-school (nursery/kindergarten) with 3 rooms
 - ii. 1 primary school 5 rooms plus teachers office
 - iii. 1 secondary school 7 rooms plus teachers office
 - iv. 1 teachers' house for 10-12 teachers
 - v. 2 Latrines for students (6 rooms / each)
 - vi. 2 latrine for teachers (2 rooms / each)
 - vii. playground areas
362. Initially the Project has built one building, later to be used as nursery, for school grades 1-3 for Hatsaykham. While the Project could also provide buildings for higher grades, the low number of students in Hatsaykham means that the provincial education authorities will not assign a teacher. Accordingly, upgrade of the school to higher grades will only be feasible with resettlement of 2LR and the arrival of larger numbers of school age children for the school year 2017/2018.
363. As the number of students increase with population growth, the number of school building on the school ground can be increased as needed, in discussion with the PAPs; using funding from the Community Development Fund.



Figure 37 Style of Kindergarten Basic

364. **Health centre:** A health centre will be located close to the residential area. The health centre will be on 1 ha of land allocated for this purpose, and will be built according to the national health standards for a community with 3,500 persons. It will also be equipped with toilets and running water, and be constructed of concrete walls and slate or tiled roof, and be adequately supplied with first-aid equipment. An external fire place will be installed to burn low-level medical waste. Critical medical waste will be transported to an incinerator located at the Provincial hospital in Paksan.

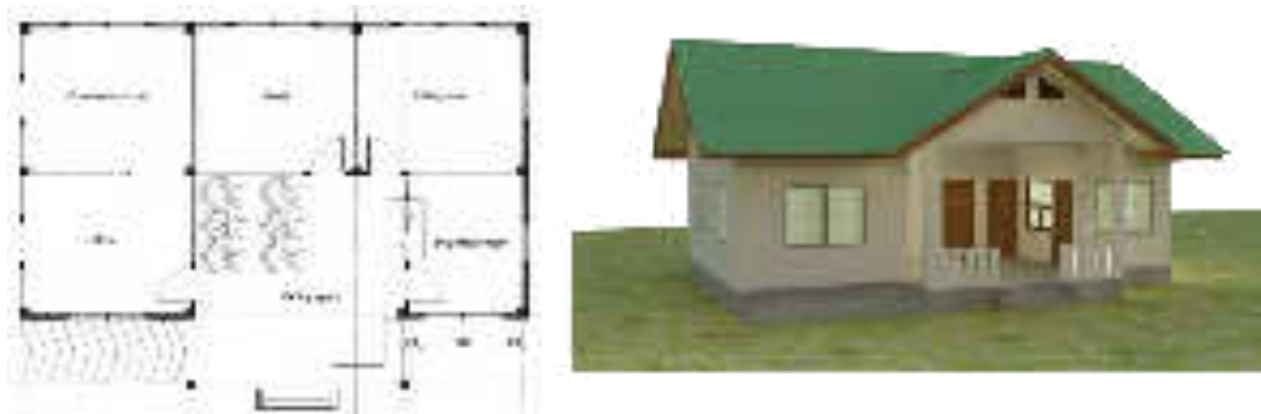


Figure 38 Basic style of health centre

365. Given that Hatsaykham currently has no health centre, no staff have been allocated by the provincial health authorities to equip and staff the centre. The situation resembles that for the school. To guarantee health services throughout the period until 2017, the Project will implement its own health program and also support mobile clinics providing regular services in the area. Once 2LR PAPs have relocated,

sufficient health personnel will be allocated to the resettlement site.

366. **Community hall, village office and museum:** A community hall, village office and museum will be built as one integrated building providing several services to the Resettlers. It will be built at the same area and the buildings located convenient to the centre of the residential area. They will be ready before the arrival of villagers from 2LR but not for early resettlement of Hatsaykham.



Figure 39 Basic style of community hall and village office

8.7.3 Economic Facilities and Services

367. **Market:** The market will be located close to a bus stop near the residential area.

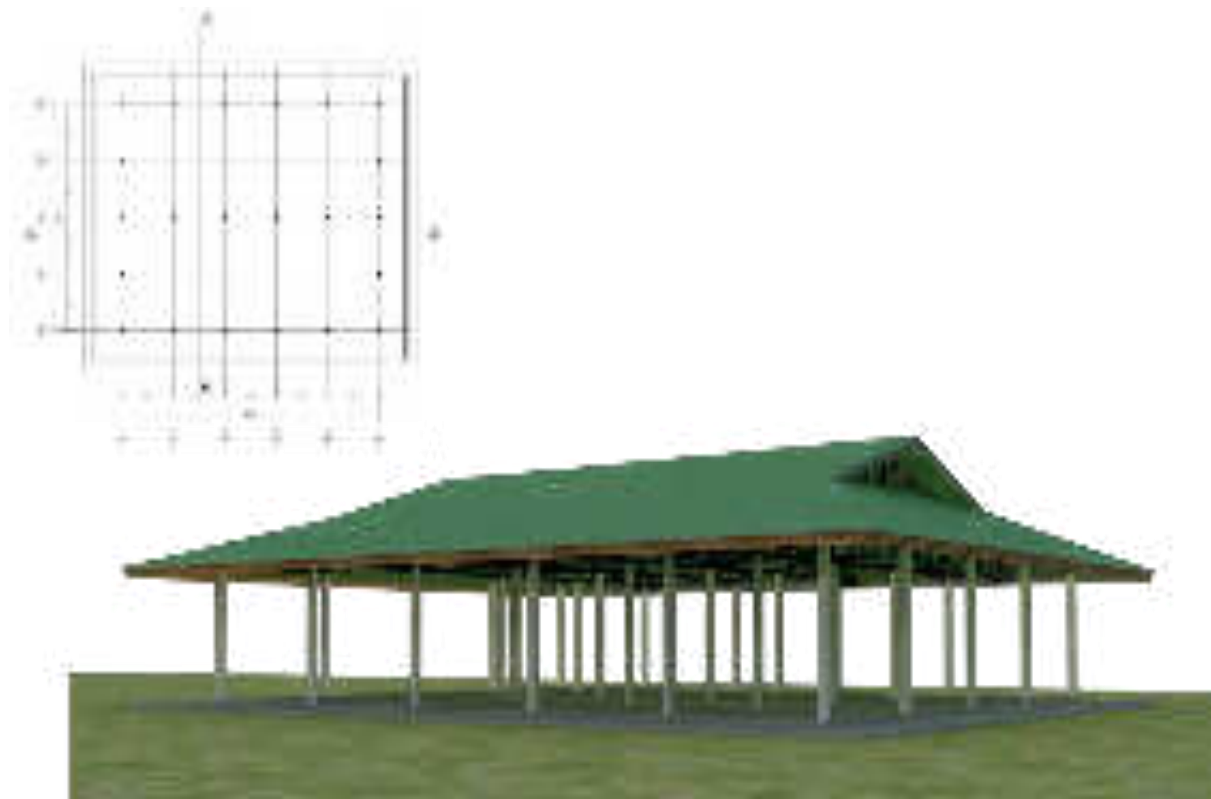


Figure 40 Basic style of market

- Number of rooms: 1 nos. (20 m ×16 m)
- Materials : wall : concrete, roof : slate

368. Space is allocated for small shops to be built around the central roofed market area, as is normal practices in markets across Laos. Land for these small shops can be put up for lease at reduced cost for resettlers and at commercial rates for outsiders. The income generated from these leases can be used to:
- 1maintain the market area, including garbage disposal
 - 2contribute to the village development fund, managed by the community directly to pay for on-going operational expenses of the village authorities, including for example supplementing teacher salaries.
369. The market will not be ready for early resettlement of Hatsaykham, but is planned to be ready soon after, on time for the arrival of the 2LR PAPs.
370. **Bus stop/station:** A bus station is to be located at the east zone of the residential area close to the market. The capacity is planned for mini-buses and *song theo* (converted passenger trucks). The bus stop is expected to become operational in 2017, when the arrival of resettlers from 2LR should allow a commercially profitable service to operate.



Figure 41 Basic style of bus station

- Area of the building : 100 m²
- Materials : roof : slate,

8.7.4 Solid Waste Disposal

371. A solid waste disposal site will be located next to the NNPI construction waste disposal site. Access will be by a continuation of the main road beyond the residential area, using the T8 road. The ESMMP-CP (available on the company website) has a detailed description of the landfill design and environmental monitoring of the use of the landfill.
372. The area of the landfill is designed based on the following specifications:
- Disposal forecast; In Lao PDR, urban residents produce about 0.75 kg of solid waste per person each day. Worldwide, rural residents tend to produce about 1/3 to 1/2 the amount of solid waste as their urban counterparts. Therefore, we can expect the people of Houay Soup to produce solid waste of about 95 to 135 kg/person/year.
 - Assuming about 3,000 residents, producing an average of 100 kg of waste/person/year,
 - Yield: 0.1 ton/person/year, Subjected people: 3,000, Total yields for 5 years: 1,500 ton, Total volume: 3,000 m³ (Specific gravity: 0.5 ton /m³),
 - Dimension of a disposal pit : W 35 m ×H 35 m ×D 2.5 m,
 - Area of disposal in total : 1 ha
373. The EMO program will run a community awareness training on waste and waste collection and arrange for waste collection from not only the Resettlers, but also the camp followers and the host communities of Hat Gniun and Thahuea. This inclusive waste program will take into consideration the lessons learned from the Recyclable Waste Bank in Hat Gniun and focus on reduction, re-use, re-cycling and safe disposal. The program will initially be subsidized by the project and will gradually move towards a sustainable operation, as the population of Resettlers increases in 2017, with the arrival of 2LR

Resettlers.

Waste generation in Laos			
Household	Access to improved sanitation (percentage of population) (2004)	61.5%	2004
	Access to improved sanitation (percentage of population) (2004) - Urban areas	73.4%	2004
Industrial	Industrial generation (percentage of total) (2004)	1%	2004
	Industrial generation (percentage of total) (2004) - Manufacturing (percentage)	4%	2004
	Industrial generation (percentage of total) (2004) - Manufacturing (percentage)	5%	2004
Agriculture	Number of agricultural households (2004)	1.2	2004
	Number of agricultural households (2004)	1.1	2004
Commercial	Number of commercial establishments (2004)	1.5	2004

Figure 42 Waste generation in Laos (Source: Lao PDR Environmental Monitor, World Bank Vientiane)

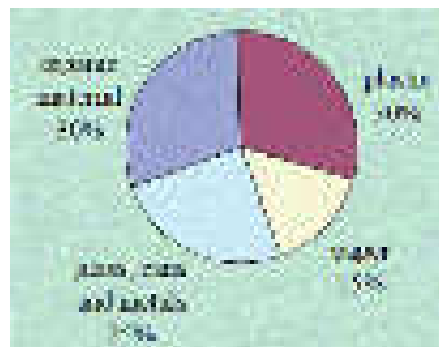


Figure 43 Comparison of typical content of waste disposal in 2001 by ADB

- 374. One pit will be prepared by the Developer with sufficient volume for the first 5 years if all people from 2LR and Zone 3 move to the designated resettlement site, though the area has a capacity for up to 10 years; deducting self-resettlers, this timeframe will increase. The waste disposal facilities can then be expanded as needed in discussion with the PAPs; using for example the Community Development Fund. The waste pit will be appropriately lined and protected to prevent seepage into the ground and groundwater in accordance to applicable environmental regulations.

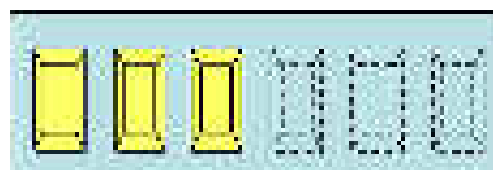


Figure 44 Schematic design of waste disposal area



Figure 45 Lined waste disposal pit under construction in the HSRA (Infrastructure development 2016)

8.7.5 Cemetery

375. Location and size of a cemetery area will be decided by villagers based on their customs and traditions. A tentative area has been selected in the forest to the east of the residential area. Hatsaykham is currently using a cemetery on the right bank on a hill close to the river which will just be impacted on 2 graves with inundation of the re-regulation pond.

8.8 *Agricultural Land*

8.8.1 Paddy Fields

376. Paddy fields are secured in the low land flat area of the elevation between EL. 176 m and EL. 170 m distributed along the Houay Soup River and the tributaries from the north to the south. As Figure 46 shows, all of the most suitable land is already under cultivation by persons from Hatsaykham, Hat Gniun and Somseun. These lands have been acquired by the project through land acquisition with compensation as per REDP Update Zone 5 (February 2016).



Figure 46 Low land, flat area planned for paddy field

377. The total paddy area is estimated as 420 ha, to be supplied with irrigation from the re-regulation reservoir for 8 months of the dry season. PAPs currently have an average of 0.69 ha of rain fed paddy land per household. The project will supply paddy fields of at least 0.1 ha per household member. The per-capita allocation of paddy land in the resettlement village, combined with the livelihood development programs, food support, rice support, educational and health program are highly pro-poor and the project expects low income and vulnerable households to progressively benefit from these policies.
378. Final development of the Paddy rice field area will depend on the number of PAPs choosing resettlement or self-resettlement, particularly those from Zone 2LR, as all areas in the resettlement site. The paddy fields in the resettlement area will be irrigated, which will allow for more than 1 crop per year.

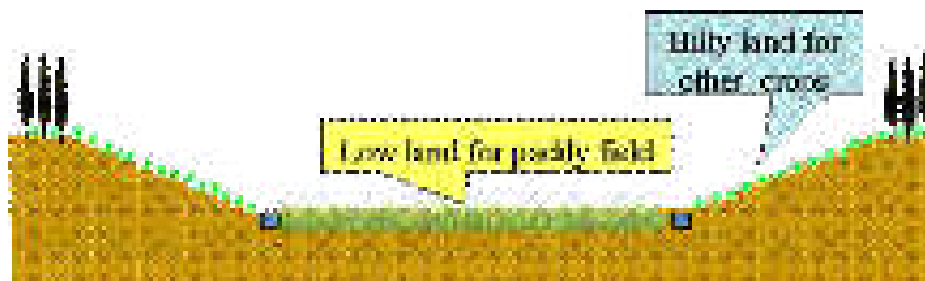


Figure 47 Layout of low land and hilly land along the Houay Soup River

379. The Project is developing approximately 40ha of paddy rice fields in the first phase, to be ready for villagers of Hatsaykham for the wet season cultivation in 2016. The irrigation system will not be ready at that time, allowing only rain-fed rice production and further soil improvement during the dry season. The irrigation system will become operational in 2017, in time for the 2LR resettlers.



Figure 48 Layout of paddy field area in Houay Soup

380. On-going studies show that rice yields of 5 ton/ha or more can be produced with application of bio-char, lime, and Effective Micro-organisms.

8.8.2 Other cultivation land

381. Other cultivation lands for rain fed upland crops will be established in the hilly areas surrounding the paddy fields. The total area is conservatively planned to be 415 ha. It is now in lands classified as unstocked forest. As outlined above, a Participatory Land Use Planning (PLUP) process will establish the allocation of land in addition to the paddy fields and basic provisions for each DP as stated in the Detailed Entitlement Matrices. This process will just commence after resettlement of Hatsaykham.



Figure 49 Typical area planned for upland cultivation land

8.8.3 Grassland

382. Grasslands for pasture are planned for the hilly area located in the northeast zone of the resettlement area. About 600 ha of pasture land is planned to be established prior to relocation of Zone 3. A carrying capacity limit of large livestock is estimated at 5 cattle/buffaloes per household. However, this recommended figure may be revised based on the actual number of eligible households finally relocating to Houay Soup. As with all other numbers in this chapter, effective numbers will be the outcome of PLUP. The whole process will extend over the date of relocation to allow PAPs to adapt the initial land use planning based on experiences in the first years after relocation. The land planned for pasture is currently classified as unstocked forest.
383. Grassland preparation for early resettlement of Hatsaykham is being developed throughout 2016.



Figure 50 Typical area planned for grass land

8.8.4 Forest for firewood

384. An area of about 300 ha of existing evergreen forest to the south of the residential area will be reserved as forest for firewood.



Figure 51 View of forest for fire wood

385. Fast growing trees such as Acacia Mangium that can be used as firewood or to make charcoal will be planted in this area. Around 1 m³ of firewood is required per person per year. A 10-year planting of Acacia Mangium produces 217 m³ in volume per ha, so 160 ha (or about 16 ha per year) would be sufficient to provide the fuel wood required by 3,500 people. Another 150 ha are available for contingency or to produce charcoal for sale. Trees equivalent to 3,000m³ will be replanted every year from the year of resettlement to COD.

- A person consumes firewood of 1 m³/year
- Acacia Mangium (10-year) produces firewood of 217m³/ha
- $1 \text{ m}^3 \times 3,500 \text{ persons} \times 10 \text{ years} / 30,000 \text{ m}^3 = 161 \text{ ha}$ rounded to 160 ha
- From firewood, charcoal with 40% volume of firewood is produced.
- $1 \text{ m}^3 \times 0.4 = 0.4 \text{ m}^3$ (0.52 ton), specific gravity: 1.3 = 30 kg x 17.3 bags
- $(60 \times 20,000 \text{ kip} = 0.35 \text{ Mkip} / \text{person})$



Figure 52 Firewood planting and production over ten years



Figure 53 Cut wood and charcoal kiln



Figure 54 Charcoal production from waste wood sawmill near Paksan

8.9 DP visits to site & views on its strengths and limitations

386. PAPs from Zone 3 know the Houay Soup site well through having used its agricultural land for many years. Zone 2LR PAPs are also familiar with the area and with its strengths and limitations as a resettlement site. Their biggest concern is the soil fertility based on traditional cultivation techniques. PAPs from Zone 3 went together with a 3D Model of the site to the villages of 2LR and explained their current use of the site and expectations how it could be used in the future.



Figure 55 Site inspection by representatives of PAPs.

387. In mid-2013 male and female PAPs' representatives visited the designated resettlement site, during

which spiritual ceremonies were undertaken to consult on the feasibility of the site as the resettlement area – with positive outcomes. Further site visits will follow with focus groups, as suggested not just by the Project but as well by the PAPs.

388. As discussed in the REDP PAPs have first been concerned about the size of the assigned land, following which the Project achieved an increase of the GoL-assigned resettlement site from 2,000 to 6,108ha. In no other place observed in the Project-related provinces can be found an area of such large size with limited current land use, including feasible areas for paddy rice fields, cash crops, and residential land. Access to the River as well as to larger streams allows irrigation, access to the main reservoir will be provided and large forest areas are located on as well as behind the resettlement site. These are strengths explained by the PAPs of Hatsaykham to 2LR.
389. Regarding the expected infrastructure and access to urban areas, PAPs are satisfied. They know that closer connection to urban areas means a change of livelihood, which is a challenge above all for the older generation. However, they also expect that the resettlement site and its facilities can be a chance, above all for the younger generation. As such, they appreciate the Project's plans.
390. In July 2013 elders of both Zones 2LR and 3 conducted Hmong and Lao spiritual ceremonies at the Houay Soup resettlement site (Figure 56). The ceremonies involved both the blessing of the Houay Soup area according to Buddhist ceremony, conducted by Hat Gniun residents and the Hmong tradition of 'reading the chicken feet', to determine if a resettlement to Houay Soup would have a positive outcome for the people, conducted by elders and spiritual leaders of Hatsaykham and 2LR PAPs. The outcome of the ceremony was positive and predicted an improved life for those moving to Houay Soup, validating it in their eyes as a resettlement site.



Figure 56 Hmong and Lao Spiritual Ceremonies at the designated resettlement site in Houay Soup (July 2013)

CHAPTER 9 - Income Restoration and Rehabilitation

9.1 *Income restoration programs, including multiple options for restoring all types of livelihoods*

9.1.1 Framework

391. Livelihood and income restoration programs are planned to correspond with other mitigating measures of the Project for PAPs to comply with international safeguards standards and to reach targets set in the CA, Annex C. These targets include:
- i. Poverty Elimination: raising households above the national poverty line;
 - ii. Maintaining Economic Parity: a living standard of at least pre-project;
 - iii. Net Income Improvement: increase of average community net income by 200% within ten years from COD from what will be measured in the baseline socioeconomic survey, to be carried out after cut-off-date close to the effective date in Q4, 2014
392. Achievement of livelihoods targets will be regularly monitored and reported as outlined in Chapter 10 of the overall REDP. PAPs are entitled to participation in livelihood restoration programs based on priorities identified by affected households during consultations between individual PAPs, NNP1PC, and DCC, and will include (i) trainings for alternative livelihood activities or (ii) enhancement of current livelihoods based on the individual preference of the DP or (iii) a combination of both.
393. Following the pre-construction period, income restoration programs extend for approximately 10 years, including preparatory and construction phases and for up to a five years stabilization phase after COD. First activities already started in 2013, while in 2014, livelihood activities were stepped up following Financial Close.
394. Details are outlined in the overall REDP. PAPs from 2LR villages are expected to resettle to the new resettlement site in 2017. It means that livelihood restoration and development will take place in a new environment although 2LR PAPs are already used to paddy field cultivation they will find in the resettlement site. As with other resettlements this process will take time and effort and needs to get prepared well before resettlement occurs. Part of agricultural lands located in elevated areas will not be flooded and will still be available to 2LR villagers, provided that they can have an access from Houay Soup. With the loss of current fishing grounds new opportunities can develop with the reservoir fisheries.
395. The Project adapts its programs to these circumstances and the livelihood program is focusing on existing activities and experiences to facilitate ownership and sustainability. Gradual adaptations and improvement of existing techniques as well as cautious integration of new livelihood activities based on the preferences and requests of the PAPs are at the core of the Project's strategy.

9.1.2 Livelihood Options

396. As outlined already, PAPs of 2LR villages have three major options
1. Resettlement to Houay Soup
 2. Self-resettlement within the Project area of influence (Bolikhan, Hom, and Thathom Districts)
 3. Self-resettlement outside the Project area of influence (PIZ)

397. The final decision of PAPs is expected for in Q3 2016 and at the latest by early Q4 2016. Consultations over the last months with PAPs as well as their representatives, including village elders, suggest that the majority of PAPs will ultimately decide to resettle to Houay Soup, and the Project has planned accordingly (see Chapter 8).
398. The following sections provide an overview on activities the Project will implement over the next years, currently under discussion with some activities already started together with villagers of 2LR.
399. For strategy details, refer to the overall REDP Chapter 6.

9.1.3 Agriculture and horticulture livelihood activities

400. As outlined above, the Project is providing agricultural land in the resettlement site and garden plots surrounding the residences. These include:
1. Paddy rice fields with an irrigation system for two-season rice
 2. Upland garden fields for crops
 3. Tree plantation lands
 4. Grazing land
401. An assessment of Houay Soup showed that while in general favourable conditions are prevalent, some soil improvement is necessary as the soils are Acrisols (AC) which have high acidity (Low pH). A demonstration farm has already been established on the site, and experiments have indicated that harvests can be improved through a soil improvement program using lime to reduce acidity (increase pH) and organic fertilizers to improve organic matter (and thus Nitrogen) in the soil. The Project will implement such soil improvement after land acquisition of the resettlement site and UXO clearance from early wet season 2016 onward before the rice planting season mid of 2016. The Project will therefore install a small-scale temporary irrigation system to allow the planting of legumes. Nitrogen fixing crops (legumes) are one of the most cost effective and natural ways to improve the nitrogen content of the soil. The usage of biochar will furthermore improve the soil. The overall irrigation system will just be available with the inundation of the re-regulation pond.

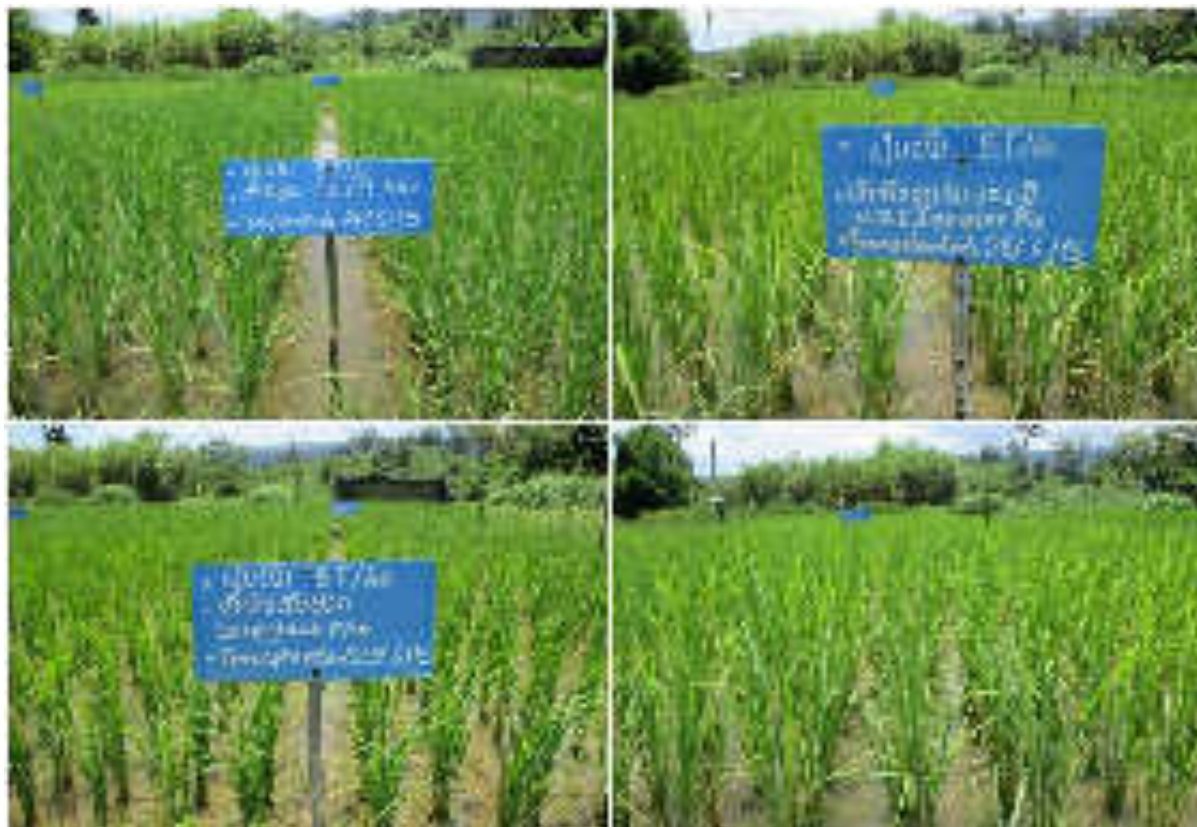


Figure 57 Demonstration of different soil improvement techniques and use of high yield rice varieties.

402. Residential land plots are planned to be large enough so that horticulture activities can be conducted by the households around their houses. Horticulture activities are considered as highly productive and a positive factor in mitigating food insecurity. Most of the households in Hatsaykham have experience in horticulture and thus experiences of PAPs and advice of Project's specialists can be combined and extended to 2LR villagers.
403. In preparation of the relocation to Houay Soup or self-resettlement, a range of livelihood activities have already been initiated in 2LR, preparing PAPs for new opportunities. These livelihood activities initiated so far do not discriminate between PAPs opting for HSRA and self-resettlement. Information, training, material support etc. are all available to all PAPs in the 4 2LR villages without discrimination. These livelihood activities mainly focused on quick income generation, using the new opportunities available because of the presence of the construction camps creating local demand for food items. However, long term livelihood initiatives also started. These activities are used also for farmer exchange with 2LR villagers.
404. Livelihood development for 2LR villagers is articulated along 2 directions:
- Short term livelihood activities: (vegetable garden; mushroom culturing, aquaculture, poultry), aiming prior to resettlement at
 - Increasing self-consumption and quick cash income
 - starting pilot activities
 - identifying capable farmer, susceptible to become group leaders and trainers or small entrepreneurs
 - upgrading various technical skills, when they moving somewhere else, the knowledge will further use

- Development of sustainable livelihood with the focus on rice seed and rice production, vegetable garden, intensive cattle production with appropriate husbandry (including improved grazing and feeding techniques) and veterinary practices, /goat raising, improved piglet production and pig raising, goat raising, mushroom cultivation, NTFPs sapling production and plantation, Off Farm/handicraft activities, etc.
405. Sustainable livelihood development implies to build up and strengthen technical knowledge and managerial capacity of PAP's
406. It starts with thorough discussion with villagers on their interests, the opportunities that will open at the resettlement site and the possible ways for villagers to get prepared for taking advantage of these opportunities. This includes opportunities awareness visits at Houay Soup, Hatsaykham and other villages and demonstration places outside of project area. It continues with identifying villager's technical and managerial shortcomings and providing relevant technical knowledge training based on their current level of skill and shortcomings and their need for application in 2LR first and later in Houay Soup. Villagers progress step by step and some of them may be keen to become group leaders and trainers.
407. Regular exchange visit/study trip between production groups inside or outside project area will be organized, aiming at sharing their experiences.
408. Step by step, villagers may get involved in the group, with the aim of having them working together as one working unit and finally setting up production groups for which necessary provide regular various levels of training course of management will be provided. When they are ready, if they wish so they will be supported for become "cooperative" (ODOP).
409. A particular objective is that the project will promote and support local production of high quality agricultural inputs and services by these production groups or cooperatives for reducing overall dependency from outside traders, guaranteeing the use of quality inputs and increasing profit of the farmers.
410. Some activities have started or are scheduled to start soon in 2LR villages. As of this REDP update about 200 HHs are involved in livelihood activities at different stages (study trip, group constitution, training and implementing activities). Activities include so far:
- Improve rice production in wet season
 - Dry and wet season vegetable
 - Sweet corn
 - Mushroom cultivation
 - Rattan nursery and plantation
 - Cattle raising with forage growing
 - Fattening of fighting bull
 - Pig, goat, chicken and duck raising
 - Catfish farming in home-plot shallow ponds
 - Frog farming
 - Integrated farming
411. A first vaccination campaign was also organized in May-June 2015 and has reached 50% of 2LR villages'

ruminants, 78% of pigs and 62% of poultry.

412. Program support will continue for self-relocated PAPs remaining in the PIZ. Households moving outside the PIZ, if they express interest in training programs they may participate in the program though NNP1PC will not contact them to inquire about their interests.



Figure 58. Implementation of animal vaccination program in 2LR (field work reports 2015).



Figure 59. Agriculture activities on display during consultation meeting in 2LR (field work November 2015).

9.1.4 Off-farm activities

413. Regarding off-farm activities, the Project has identified several key areas:

1. Shops and Transport
2. Repair and other Services
3. Handicraft
4. Training and Education

414. **Shops and Transport:** a number of families have some small shops selling basic household stuff. With the resettlement in Houay Soup, further opportunities will arise. The Project has made contact with respective training facilities and will provide trainings, for example in shop organization including financial measures and logistics. Opportunities in retail and transport business will open and amongst others, the Project will provide driving trainings for villagers.

415. **Repair and other Services:** with the increasing use of machinery such as motorbikes and tractors already in 2LR, repair shops will be even in more demand at the resettlement site and will provide opportunities for villagers of 2LR. The Project will provide training in motorbike repairs, after households have chosen their preferred livelihood activities. Further service provisions are a possible business opportunity, for example food shops, beauty salons etc.

416. **Handicraft:** Handicraft activities are not common in 2LR. However, experience from Hatsaykham show that with increasing market access that will be provided at the resettlement area, handicrafts such as weaving have potential for adding to the family income, including for household income in the hands of women. However, the handicrafts market is fairly saturated in Laos, and next to skills enhancement, understanding and managing marketing activities are central to success, as other projects in Laos have shown. The Project has therefore hired a marketing officer to work on these issues together with an off-farm-activities officer. Such works has successfully started with the Hmong DP in Hatsaykham (See Figure 60 below).



Figure 60 Training on handicraft production Four (4) HH from Hatsaykham joined this training.

417. **Training and education:** the training and education program is one of the core components of the Project's livelihood programs with a volume of more than 2 million dollars for directly impacted communities, including 2LR villages. A large scholarship program with 370 allocated supported places for young people in vocational skills, higher diploma, and university education, is an essential element in this program, allowing students to graduate from technical colleges and universities. 40% of scholarships are reserved for female students. Further details are available in the REDP.
418. The program started already in 2014 and is open both to Resettlers, directly impacted Households in Zone 2LR and the host communities. For graduates from high school, the Project started by organizing the participation in entrance exams, providing support for related costs including transport and accommodation. The occupational skills program started with identifying and registering interested PAPs and coordination with the Project's contractors and subcontractors on necessary skills.
419. The scholarships provided are summarized by village (all project zones) and gender in the next table (Table 75). 2LR villages have a good share of participation in the program with one third in 2014-15 and more than 50% in 2015-16. Similarly to other villages, girls enrolment is low but reflecting the lower

enrolment than for boys in secondary school.

Village	2014-2015			2015-2016		
	Men	Women	total	Men	Women	total
Houaypamom	1	0	1	2	0	2
Sopphuane	1	0	1	0	0	0
Sopyouak	2	2	4	5	1	6
Namyouak	1	0	1	8	1	9
Hatsaykham	2	0	2	0	0	0
Hat Gniun	1	1	2	0	1	1
Thahuea	0	0	0	0	1	1
Pou	4	1	5	2	1	3
Piengta	1	1	1	2	1	3
Hatsamkhone	0	1	1	5	1	6
Total	12	6	18	24	7	31

Table 75 Scholarship provided to students for 2014-2015 and 2015-2016 in all project zones.

420. Program support on off-farm activities will continue to be available for interested PAPs who opt for self-resettlement while remaining in the PIZ. Households moving outside the PIZ, if they express interest in training programs they may participate in the program though NNP1PC will not contact them to inquire about their interests.

9.1.5 Fisheries

421. The experience from other hydropower projects in Laos demonstrate that reservoir fisheries can provide a significant contribution both nutritionally and financially, to affected people. The Project is working together closely with the GOL to establish a fisheries co-management plan as part of the Watershed Management Plan. Besides reservoir fisheries, the project has been promoting different techniques for raising fish in different circumstances: (i) simple, shallow household ponds for raising catfish and/or frogs in a home plot (Figure 61) (ii) raising fish in floating cages in a river (Figure 62) and (iii) raising fish in dug fish ponds.
422. Fisheries is a core component of current livelihoods (see chapter 3) and is foreseen to remain so in future. The different techniques of raising fish promoted by the project will help DP transition through the different phases the fisheries will go through, and allow PAPs to choose what option is most suitable for them. In the HSRA, different fisheries facilities are available. A boat landing site/harbour is situated at the top of the dam, close to the HSRA. This will allow easy access to the reservoir and enable reservoir

fisheries for the PAPs. The irrigation reservoir in the HSRA will function as a community fish pond in the resettlement site and will be integrated into an overall fisheries program. It can be used for raising fish in a cage, if households are interested in this technique. Adjacent to the paddy rice fields, there are small plots of land which can function as a fish pond, either connected to the paddy rice fields and allowing fish to forage in the paddy and retreat to deeper water as the rice cultivation is completed, or as a stand-alone pond.

423. Different fish processing techniques are widely used in Laos and include fermenting (to sour fish or fermented fish paste called “Phadek” in Lao), sun drying and smoking/drying above a fire. Examples of successfully processing fish for commercial purposes can be seen amongst other locations at a village along the road from Paksan to Vientiane. During study tours, PAPs were taken to this location as a source of inspiration for implementing similar processing once the reservoir windfall catches provide a surge in fish. The livelihood team is already working with pilot farmers on fish processing.
424. The Project started a fish-catch monitoring program in mid-2015, and with the information available, this will feed into a fisheries co-management program. The setup of this program will include discussing with the GoL the fishing rights for the resettlers and the 2UR communities on the reservoir. One initial outcome of the fish catch monitoring is the low involvement of women in fishing in Zone 2LR. Only 12% of total reported fishing days includes adult women being involved, versus 85% of men. Male children are involved in 25% of the total reported fishing days, double that of adult women. One explanation is that there are few habitats where small fish and Other Aquatic Animals (OAA) and plants are collected. Collection of OAA is normally a task undertaken by women. Another aspect is that in Zone 2LR, most of the fishing does not involve the use of a lift net, the tool used mostly by women in other areas. The three most important fishing gears are Gillnet, Hook and line and Cast net. Reservoir fisheries are expected to be mostly conducted by men and at times, by both husband and wife together, using gill nets and hook and line as the main gear for fishing. Given the current practise of fishing in Zone 2LR, using similar gear and mostly involving men, changes in customary livelihood practices are expected to be limited and far less than for communities where women partake more in the fisheries activities than is currently the practise in 2LR.



Figure 61. Shallow household ponds for raising catfish and/or frogs in a home plot in Sopyouak (Livelihood program 2015).



Figure 62. Raising fish in a cage in Thahuea village (Livelihood program 2016)



Figure 63 Fish from fish cage after 1 month

9.2 Measures to provide social safety net

425. The Project is currently preparing a detailed social safety net. This will encompass a monitoring component to identify households struggling to reach the minimum income standards and an activity component tailored to the needs of the specific households. The Project has collected information on vulnerable households and their social links (relatives in other households).
426. The social safety net is a complementary means for the Project to comply with the poverty elimination test and adding to the overall income restoration programs outlined in previous sections and chapters.

9.3 Special measures to support vulnerable groups

427. The project addresses four different kinds of vulnerability through different programs:
- Needs of Ethnic Groups will be addressed as a cross-cutting issue (such as ensuring the use of appropriate forms of communication), but also via special programs and activities as outlined in the Ethnic Development Plan (see REDP)
 - The issue of PAPs without legal title to land or property is addressed by acknowledging customary rights to lands. Secure tenure for replacement land will be ensured by supporting GoL in the provision of land titles for replacement land and housing – an entitlement of PAPs acknowledged by the Project. This is an essential process for 2LR villages, where none of the villagers have land titles.
 - Needs of Women will be addressed as a cross-cutting issue (focus group discussions, tenure security, compensation methodologies), but as well via special programs and activities as outlined in the Gender Action Plan (see Chapters. 3, 4 and SDP)
 - Poorer families will be allocated land of at least a viable size in the resettlement site and additional livelihood activities, and will receive trainings and inputs on its economic use
 - Vulnerable households where the measures outlined in points above are not sufficient or viable will receive overall special assistance, as for example the extension of transitional assistance

from 3 months to 1 year with possible extension, and additional, regular monitoring by the vulnerability officer. Assistance specific to the type of vulnerability will also be provided:

- a. for households with people with disabilities this encompasses amongst others design adaptations of resettlement houses;
 - b. for households with people with health problems, health assistance will be provided by the Project's health team;
 - c. for households with not enough labour to establish independent living, extended food support will be provided.
 - d. The vulnerability officer will assess the needs and potential activities together with each individual household and will coordinate with the education, health, and livelihood teams of the Project to provide sustainable and livelihood improving support.
428. In 2LR villages, 66 families have been identified as potential vulnerable households including 6 female headed households (refer to section 3.22). The self-resettlement plan has a section on the health status of the family and assists the household in identifying special measures to consider when self-resettling. Transitional support for vulnerable households is extended from 3 months to a period of 1 year. This transitional support which will be paid in cash for self-resettlers. Unfortunately, because self-resettlers are implementing their own resettlement, the project can only advise vulnerable households choosing to self-resettle to carefully consider specific items, such as house modifications, but it cannot ensure they are implemented. Both the project and Government counterparts suggest vulnerable households to carefully consider the short term and long term benefits provided at the HSRA to them.

9.4 Measures to address identified gender issues

429. Based on SDP's mitigation measures for women and gender issues, this REDP-U2LR includes specific actions under the Gender Action Plan (GAP) to address identified gender issues of 2LR villages. These actions identify such issues through consultations with affected women, who have already identified their priorities such as basic requirements for income restoration and other social issues such as health, education, and nutrition for Hmong women and girls.
430. As described in the SDP, the objectives of the GAP are to (i) promote the realization of gender equity, basic human rights and women's rights, (ii) ensure equal interests in all compensation and mitigation measures, (iii) promote girls' and women's access to education and capacity building programmes, including employment opportunities, (iv) promote active participation of women in all project development activities, encourage decision making and representing their own community related to social and political functions, (v) improve health safety and reduce health risk through improved awareness on human trafficking and HIV/AIDS, and (vi) gather gender-disaggregated data and information, to enable equity monitoring over time.

The following measures are core Project components to achieve these aims:

- Consultation methodology to include women as well as of men to develop appropriate design and inputs to livelihoods programs
- Gender balance targeting
- Joint spousal authorization and receipt
- Support education programmes, girls' schooling and Lao language
 - a. Set target for adult literacy programs for women and men

- b. Set target for school enrolment including secondary school attendance of girls
 - c. Set target for higher education (vocational schools) and university degrees
- Support women 's skills development and increase income opportunities for women in the resettlement site
 - a. On-farms,
 - b. off-farms and
 - c. fisheries activities
- Supporting women's engagement in the project activities
- Community and Public Health: develop health programs focusing on maternal and child health, family planning and birth spacing
- Capacity Building to Promote Women's Leadership and Decision Making Power

9.4.1 Consultation

431. All consultations with Zone 2LR women have been undertaken by Hmong female staff and in Hmong language. Visual aids have been used as most adult women are illiterate. Moreover, in public meetings women rarely raise their voices in front of men, therefore separate meetings have been essential not only to communicate information, but to obtain views that can feed into the Project's planning process.
432. Additionally, while the Project regularly interacts with male village leaders and elders, it has also adopted a strategy of household-by-household consultation, particularly on compensation and choices. This is necessary because women can make their views known within the family, and poorer families can discuss among themselves and make independent choices without alienating clan heads and elders. Good faith negotiations on compensation are thus gender-specific and family-centred, as well as respecting traditional leadership.



Figure 64. Female Hmong staff during consultation meeting in 2LR (field work November 2015).

9.4.2 Gender balance targeting

433. Gender balance targets are essential for improving equal participation of women and men in project activities. The targets are to encourage equal voices in decision making positions or livelihoods activities of the villagers. The measurement include higher attending rate of girls to complete at least the mandatory level (grade 5) of primary school and preferable secondary school as well. At the Houay Soup resettlement site, a high school will be constructed, improving access to high school facilities, which currently require traveling to Phalaveck town in Hom district. Improved access to high school facilities is expected to increase high school attendance amongst PAPs.
434. To achieve the targeted education equality between boys and girls, there is a need to encourage parents to plan for the education of their children. Another importance balance targeting is to enhance skills and capacity of women and promote roles of women in income generating activities, family financial management and other family management tasks, secure equity in tenure documents for replacement housing and land, ensure gender equity in procedures for cash compensation, and ensure open positions for local women.
435. The SDP states that in order to meet these targets, the Project will (i) use gender specific data and gender disaggregate all data collection, entry and analysis; (ii) increase women's activities in new areas; (iii) increase women's voices and authority in village level activities; (iv) support more women's representation in leadership and decision-making positions. The intended results are:
- improved girls' and women's health

- improved gender equity in legal tenure of property and land
- reduced workloads of girls and women
- increase women's access to and control over resources
- increase women and girls' levels of education and literacy
- Joint spousal authorization, receipt and ownership

9.4.3 Joint spousal authorization, receipt and ownership

436. The projects enforce the joint spousal authorization and receipt in all cases, as well as ownership rights to properties, rights to receive compensation, rights to participate in training or any development activities. Like other project sites, husband and wife in 2LR villages must be present when signing documents or receiving compensation, and both give their signatures, or thumbprints for those who cannot write their names, on any legal PAPs or claims. Where compensation payment is made into bank accounts, the account will be opened with the assistance of the project in both the husband and wife's joint names. Land titles will be issued in both husband's and wife's name or in case of a second or third wives in some households with more than one wife, the respective wife can choose to put her name as well as the names of one name of another family member, to be selected by the wife, on the document.

9.4.4 Support education programs, girls' schooling and Lao language

437. The project sets targets for adult literacy programs for women and men. So far, the project has conducted 2 adult literacy courses in zone 2LR: one in 2014-2015 and the other is in 2015-2016. In line with the results of the baseline SES regarding literacy, the classes concern mainly the women and the villages of Houaypamom and Sopphuane.

	Houaypamom	Sopphuane	Sopyouak	Namyouak
Men	2	0	0	0
Women	13	11	0	6
Total	15	11	0	6

Table 76 Adult literacy class in 2014-2015 in 2LR

	Houaypamom	Sopphuane	Sopyouak	Namyouak
Men	2	0	N/A	N/A
Women	13	11	N/A	N/A
Total	19	12	0	0

Table 77 Adult literacy class in 2015-2016 in 2LR

9.4.5 Support women's engagement in the project activities, including women's skills development and income opportunities in the resettlement site

438. There are three different livelihoods options offered by NNP1 as follow: (i) resettlement to Houay Soup, (ii) self-resettlement within the Project area of influence (Bolikhan, Hom, and Thathom Districts), and (iii) self-resettlement outside the Project area of influence. The gender action plan offers support and activities to PAPs who have chosen option (i) or (ii). Option (iii) is a full-cash compensation and the

DP will lose their right to gain access to these offered livelihoods options.

439. The livelihood programmes is classified into three main categories: on-farm, off-farm and fisheries. For 2LR, the project will target having at least **40%** of women's engagement in the project activities, including women's skills development and income opportunities in the resettlement site. The on-farm activities include but are not limited to the following: (i) irrigation system for two season rice cultivation, (ii) cash crop production, (iii) timber wood, fire wood and fruit trees, (iv) gazing pasture, (v) vegetables, bean, maize/corns/chick/peas and fruit crops, and (vi) other aquatic productions and aquaculture. Off-farm activities include shops and transport, repair and other services, handicraft, and other vocational training and education related to livelihood activities. At the resettlement site, a community fishpond will be provided and the management strategies will be integrated into an overall fisheries program.



Figure 65. Female Hmong DP looking at visual display during consultation meetings in 2LR (field work November 2015).

9.4.6 Community Health Awareness Program

440. The project develops health programs focusing on maternal and child health. Both men and women will have equal access to health facilities provided by the project. Health/Dam Safety Procedures, Construction Health Risk Prevention toolkit, Camp Follower and Labour Management Plan and other Health Awareness Programmes are made available and accessible for all PAPs. Public Health Management for Hatsaykham hamlet is currently available and being implemented, with a focus on

improving community health with a strong foundation of better hygiene, water and sanitation to underpin better nutritional outcomes..

441. A baseline health survey for all project sites was undertaken in October/November 2014. The survey found that, like the rest of Laos, that improving incomes and consumption, reducing poverty have not translated into improved health and nutritional outcomes. High levels of stunting in children under 5 years (54%) and anaemia in women (30%) suggest that the burden of diarrhoeal disease, parasitic infections, frequent births, and poor access to health facilities have counteracted the economic improvements. Improved sanitation, hygiene, parasite treatment, and improved access to health services should dramatically improve the nutritional and health outcomes of the resettlers, particularly women and children.

9.4.7 Capacity Building to Promote Women's Leadership and Decision Making Power

442. The project promotes the realization of leadership roles and decision making power of women within affected villages and beyond. In 2LR villages, the appointed leaders for Lao Women Union (LWU) have important roles in participating and engaging in development activities. They are actively seeking support from the project to advance their involvement in the project activities to ensure women benefits from the project. The project will not only encourage and support this existing incentive, but also will assist institutional arrangements strengthening 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 be provided by the project in order to promote women in 2R villages to gain equality among genders.

Work Plan	Resp. Agency	Beneficiaries	Targets	P r e	Construction Phase (year)					Operation Phase (year)				
					1	2	3	4	5	1	2	3	...	
Gender Mainstreaming														
Gathering and Applying Gender Specific Data	SMO Monitoring / Gender	Female PAPs	100% disaggregated information on schooling, health and employment	+	+	+	+	+	+	+	+	+	+	
Requiring Joint Spousal Authorization and Receipt	SMO Compensation / Gender	Female Head of Household	100% of Compensation Forms signed by both husband and wife ¹⁸ 100% bank books in names of both spouses	+	+	+	+	+	+	+				
Joint Tenure for Property and Land	SMO Compensation / Gender / PONRE	Wives and Daughters	100% land and property titles in names of both husband and wife Where more than 1 wife, title in name of wife and 1 other, selected by the wife		+	+	+	+	+					
Support Women and Girls' Schooling	SMO Education / Gender	Women (Income) Girls	At least 60% of girls conclude primary school 40% post-secondary scholarships reserved for girls			+	+	+	+	+	+	+	+	
Increase Income Opportunities for Women in the resettlement site	SMO Infrastructure / Resettlement / Gender	Women in resettlement site (Income)	At least 1 woman of 98% of affected households participates in Livelihood programs provided for households for who livelihood restoration activities apply			+	+	+	+	+	+			
Support Women's Engagement in the Project	SMO Gender Social Development	Women (Income + Livelihood)	40% female participation in overall project activities All illegal activities and		+	+	+	+	+	+	+	+	+	

			exploitation of women will be investigated and penalized											
Capacity Building to Promote Women’s Leadership and Decision Making Power														
Village Level Workshops on Gender Roles	SMO Gender	Men and Women	Every male and female DP above 16 attended at least once a training			+	+	+	+	+	+			
Women Management Trainings	SMO Gender	Women (Leadership)	Every institution in the resettlement site includes women			+	+	+	+	+	+			

Figure 66 Gender Measurement Targets



Figure 67. Female Hmong staff discussing with Hmong DP during consultation meetings in 2LR communities (field work November 2015).

¹⁸ In case of deviation from the target reason for it will be provided by the Project.

CHAPTER 10 - Consultations and Grievance Mechanism

443. Project consultations are described in the overall REDP. This section updates the continuing consultation process since May 2014. Disclosure of information and consultations occur during preparation and implementation of the Houay Soup site to ensure that PAPs and other stakeholders have timely information about land acquisition and compensation, as well as opportunities to participate in and express their preferences and concerns regarding the resettlement program. NNP1PC and DCC with assistance from the village authorities are organizing meetings and consultation and distribute information to keep PAPs informed about the impacts and schedule of compensation and resettlement. Discussions are continuous and at each meeting, more and relevant information is provided, including suggestions for possible agreements as to benefit-sharing and mitigation measures. These discussions will continue as major decision-making points in the process arise. The Project also includes resource persons from the Technical Department to inform the communities about safety precautions regarding the construction. Consultations also include information on the entitlement matrix, the compensation unit rates, grievance redress mechanism, and schedule of land acquisition.
444. Despite concerns about soil quality at Houay Soup, there is BCS from Hmong communities in Zone 2LR, and agreement how to move forward. Evidence has been shown of information sharing in an atmosphere free from intimidation and inclusive of gender and wider diversity. Good faith negotiations are ongoing over the details, namely choice of cash compensation or relocation to Houay Soup, re-siting of graveyard and conducting associated spirit ceremonies, preparation of livelihoods strengthening for PAPs irrespective of their compensation choices. ADB has conducted due diligence and confirmed compliance with its SPS in achieving BCS in Zone 2LR.
445. The Confirmation Survey (asset registration being the last step) in 2LR is completed. The community consultation on compensation of loss is organized from early Q3 2016, to disseminate the information on (i) final and official lists of eligible PAPs and their entitlements, (ii) final and updated compensation rates and amounts, (iii) and, other matters such as the grievance redress mechanism.
446. Since some PAPs cannot read and some Hmong cannot understand Lao language appropriate materials and processes of information dissemination have been and will continue to be used, sensitive to their abilities and needs. These include verbal presentations, pictures, and Hmong project staff working both as facilitators and translators. Results of asset registration will be posted on the village board, guaranteeing that everybody is informed.
447. Important tools of accountability for construction and in the LAR process are
- The asset registration including IOL calculations (Form A),
 - Declaration Forms (Forms F and G), and
 - Integrated Compensation Receipt Forms (last section of Form G).
448. Declaration Forms use and reprint the calculated figures from the IOL and Compensation Receipt Forms are directly attached to the Declaration Forms. These forms show clearly if the compensation procedures are followed properly and if the PAPs are informed about their rights.

10.1 Consultations in 2LR villages

N ^o	Date	Location	Parti- pants/Female	Activity	Content
01	7/4/2014	Sopphuane	37	Entitlement Matrix Dissemination	PAPs agreed with EM policy.
02	8/4/2014	Sopyouak	75	Entitlement Matrix Dissemination	PAPs agreed with EM policy and compensate PAPs of all assets then will move to Houay Soup
03	10 /4/2014	Houaypamom	34	Entitlement Matrix Dissemination	PAPs agreed with EM policy.
04	10/4/2014	Namyouak	100	Entitlement Matrix Dissemination	PAPs agreed with EM policy, but request compensation price of land equal to land in Vientiane.
05	9/7/2014	Sopphuane	101/18	Consultation on draft of Compensation unit rate	PAPs request to increase price for some crops and land to this draft
06	9/7/2014	Houaypamom	72/27	Consultation on draft of Compensation unit rate	PAPs request to increase price for some crops and land to this draft
07	10/7/2014	Namyouak	123/19	Consultation on draft of Compensation unit rate	PAPs request to increase price for some crops and land to this draft
08	10/7/2014	Sopyouak	109/32	Consultation on draft of Compensation unit rate	PAPs request to increase price for some crops and land to this draft
09	11/9/2014	Sopphuane & Houaypamom	46/11	Reported the progress of NNP1 project and informed PAPs for the house style that was discussed with PAPs at Hatsaykham village	Houaypamom and Sopphuane attended this meeting: PAPs gave some advice for the kitchen house's door and each house should not be parallel.
10	11/9/2014	Sopyouak	71/33	Reported the progress of NNP1 project and informed PAPs for the house style that was discussed with PAPs at Hatsaykham village	PAPs propose to have the toilet close to main house and kitchen minimum 5x6 m
11	10/7/2014	Namyouak	123/19	Consultation on draft of Compensation unit rate	PAPs want to know how to calculate the price for compensation and if this draft is for Houay Soup or self- resettlement
12	12/9/2014	Namyouak	44/7	Reported the progress of NNP1 project and informed PAPs for the house style that was discussed with PAPs at Hatsaykham village	According to Hmong culture kitchen should be bigger than this design and PAPs worry about house in future if kids are married.

N ^o	Date	Location	Partici- pants/Female	Activity	Content
13	25/3/2015	Sopyouak	95/38	Consultation meeting on compensation unit rate	Village authorities from 4 villages attended meeting at Sopyouak today and all agreed that the yield of rice field is 3,500kg/ha and rice in husk price is 2,500 LAK/kg
14	30-31/5/2015	Sopyouak	134/13	Consultation meeting on compensation unit rate	Village authorities from 4 villages attended meeting: Some rates are unanimous and agreed for the compensation and some need for next discussion.
15	20-22/7/2015	Hom district	76/15	Consultation meeting on compensation unit rate	4 villages from 2LR joined the consultation meeting at Hom District and finally the majority of compensation unit rate for assets are agreed together.
16	1/9/2015	Namyouak	91/41	Dissemination of: 1. Cut-Off-Date, 2. Deadline of grave registration and 3. Decree of compensation unit rate	Village asked to add the compensation item the 9 items
17	1/9/2015	Sopyouak	79/29	Dissemination of: 1. Cut-Off-Date, 2. Deadline of grave registration and 3. Decree of compensation unit rate.	They want to know why the price of rotating highland rice field is different between 2LR and Houay Soup.
18	2/9/2015	Sopphuane+ Houaypamom	79/30	Dissemination of: 1. Cut-Off-Date, 2. Deadline of grave registration and 3. Decree of compensation unit rate	Sopphuane and Houaypamom joined on today meeting: Head of Sopphuane village asked to add the compensation item that have already been proposed to the compensation list.
19	16/11/2015	Namyouak	N/A	Dissemination of: Resettlement policy, Compensation principle and livelihood restoration	NNP1 PC N.1170/PG.XSB dated 29.09.2015 Right to get compensation Policy for Houay Soup Resettlement Community Right of PAPs need self-resettled. Right to have many members in the household.

N ^o	Date	Location	Parti- pants/Female	Activity	Content
20	17/11/2015	Sopyouak	N/A	Dissemination of: Resettlement policy, Compensation principle and livelihood restoration	NNP1 PC N.1170/PG.XSB dated 29.09.2015 Right to get compensation Policy for Houay Soup Resettlement Community Right of PAPs need self- resettled. Right to have many members in the household.
21	18/11/2015	Sopphuane	N/A	Dissemination of: Resettlement policy, Compensation principle and livelihood restoration	NNP1 PC N.1170/PG.XSB dated 29.09.2015 Right to get compensation Policy for Houay Soup Resettlement Community Right of PAPs need self- resettled. Right to have many members in the household.
22	19/11/2015	Houaypamom	N/A	Dissemination of: Resettlement policy, Compensation principle and livelihood restoration	NNP1 PC N.1170/PG.XSB dated 29.09.2015 Right to get compensation Policy for Houay Soup Resettlement Community Right of PAPs need self- resettled. Right to have many members in the household.
23	05-01-2016	Namyouak	22/1	Consultation-9 items- District and village reconciliation	Consultation on the concerns of 49 HH who refuse to participate in the asset registration process.
24	06-01-2016	Sopyouak (Nong)	39/11	Consultation-10 items-	Consultation on the compensation Unit Rate on 10 items, including 9 items and the suspension bridge in Sopyouak.
25	19-01-2016	Hom	19/1	Third Consultation meeting on 9 item compensation	Data collection 5-7 /01/2016. And 49 families not agree to Asset registration. One Bridge, Road digging labour, trees.
26	04-02-2016	Namyouak	N/A	Consultation meeting -54 families concern	Discussion on access road for new cemetery Documentation copies Request by some PAPs to pay in cash and not through bank transfer.

N ^o	Date	Location	Partici- pants/Female	Activity	Content
27	11-02-2016	Namyouak	13/0	Record: Inspection New cemetery	Distance to new cemetery is estimated to be 500m, using GPS. It's located at an elevation of 420 msl Forest area 12,000 sqm.
28	12-02-2016	Sopphuane	19/0	Consultation on Grave relocation ceremony	Discussion regarding Grave relocation ceremony/Exhuming/ Its process
29	18-02-2016	Sopphuane	53/22	Indication on meeting 7 questions.	Asset above 320 m require the NNP1 and RMU to measure before compensation
30	03-03-2016	Namyouak	11/0	Record: Inspection New cemetery	Distance to new cemetery is estimated to be 470m, using GPS. It's located at an elevation of 461 msl Forest area 12,000 sqm.
31	04-03-2016	Sopphuane/ Sopyouak/ Namyouak/H ouaypamom	N/A	Record: Inspection New cemetery	Investigation and reporting on the findings of several potential sites for new cemetery.
32	04-03-2016	Bolikhaxay/ Xaysomboun	46/2	RMU Meeting-4 th time	Reporting on the progress of the project to date and planning on how to solve outstanding issues. Proposal was made to add two more RMU staff to Xaysomboun province, to allocate 1 person in Hom district and one for Thathom district
33	15-03-2016	Hom	37	Meeting on the study and exchange on 9 items of compensation unit rate	Discussion on the 9 items. Some items could be agreed, others required further studies.
34	23-03-2016	Sopyouak	16	Relocate the old grave affected by the inundation to re-bury on it.	Consultation on grave compensation. It was agreed that the amount of 3,000,000 Lak per grave is sufficient
35	23-03-2016	Sopyouak	N/A	The determination of new Cemetery area (Mr. Longha + Mrs. Douayang)	10.1.1 Individual MOU with Affected PAP for grave relocation
36	23-03-2016	Sopyouak	N/A	The determination of new Cemetery area Mr. Somphone + Mrs. Herxiong	10.1.2 Individual MOU with Affected PAP for grave relocation

N ^o	Date	Location	Partici- pants/Female	Activity	Content
37	23-03-2016	Sopyouak	N/A	The determination of new Cemetery area Mr. Thongphet + Mrs. Yaher	10.1.3 Individual MOU with Affected PAP for grave relocation
38	20-04-2016	Hom	12	To prepare the grave compensation for 4 villages (2LR)	Document Preparation on HHs bank A/c opening for grave compensation
39	24-04-2016	Namyouak	75/30	Consultation on Asset registration	10.1.4 Consultation to find resolution on 45 HH who refuse to participate in asset registration.
40	28-04-2016	Sopphuane	9	Exhume the old grave to move to new cemetery	10.1.5 Consultation with households how want to exhume a grave on how to do so safely.
41	23-06-2016	Sopyouak	34	Consultation on Asset registration	No. 694/ PG. XSB date 17/06/2016, to notify these 44 households of the need to register their assets by July the 10 and the updated date validity of assets registered, notification No. 695/ PG. XSB date 17/06/2016
42	24-06-2016	Namyouak	62	Consultation on Asset registration	No. 694/ PG. XSB date 17/06/2016, to notify these 44 households of the need to register their assets by July the 10 and the updated date validity of assets registered, notification No. 695/ PG. XSB date 17/06/2016
43	24-06-2016	Sopphuane	32	Consultation on Asset registration	No. 694/ PG. XSB date 17/06/2016, to notify these 44 households of the need to register their assets by July the 10 and the updated date validity of assets registered. No. 695/ PG. XSB-17/06/2016 Additional notification. Cut-off-date of the project: Hom district 3rd September 2015 Thathom District, 21 st August 2015.

Table 78 Consultations in 2LR

10.2 *Information Disclosure*

449. In addition to these meetings, the Project discloses all its plans including this LACP-U2LR in the different Project information points as well as on the Company and ADB websites.
450. An official letter announcing the Final Unit Rates together with the cut-off date for all villages involved has been provided to all affected villages. The cut-off date is announced in 2 ways: verbally during final IOL data collection, and by the Head of Village to the villagers after receipt of the letter from the DCC.
451. NNP1 recognizes that the affected peoples, including the villagers in 2LR, have the right to support or deny their **free prior informed consultation** related to any activities proposed by the project. The information on potential risks and benefits was strongly communicated with the villagers, especially since late 2013 when the development of access roads to the dam site started. Villagers were informed of the project components including the construction of hydropower development, the main dam and regulating dam, the livelihood restoration and development programmes, infrastructure development in the resettlement site and host community, capacity building and training programmes, community health awareness campaigns including health and disability screening such as child nutrition and weigh status and child development, and other assistances.
452. During the **Broad Community Support** consultation (described fully in the REDP-AR), the villagers in 2LR expressed their support for the development of hydropower development and their willingness to participate in project's implementation in order to gain benefits in an informed manner. They believe that the earlier they were engaged and informed of project activities and timetable, the better the transparency process and development outcomes they will gain. NNP1 fully supports the active involvement of men and women and believe this will help to develop appropriate design and inputs to livelihoods programmes.
453. Consultations continue on a routine basis, and good faith negotiations have been taking place over the past 1.5 years on matters important to PAPs, particularly the structure and content of Houay Soup site, unit rates of compensation, livelihoods priorities, etc.

10.3 *Current Status of Grievances*

454. Appendix 8 of CA's Annex C presents the GRM of NNP1. This GRM requires each affected village to establish grievance committees, which are established Lao village institutions pre-existing any projects. The District Grievance Committee and Village Grievance committees in Zone 2LR have already been established by the Hom District governor on the 28th May 2014.
455. The GRM system is based first on customary methods of dispute resolution in Lao PDR as well as among ethnic communities, including Hmong, which is through consultation with elders and respected persons at village level. Most disputes are resolved at this level, and the process is well accepted by GoL.
456. Because Hmong culture depends on an authority system of male elders, care has been taken to ensure that women and poorer households are able to access the Project's GRM if they choose. This has been prepared by the Project through individual household discussions as well as separate men and women's meetings, where Project processes are explained to PAPs. If the complainant is not satisfied with the outcome through customary, village dispute resolution methods, a grievance can be submitted to the next level, which is to the Village Grievance Redress Committee (VGRC). A representative of the LWU is appointed to each committee.

No.	Grievance Redress Procedures
1	<p>Stage 1: In the first instance, PAPs will address complaints on any aspect of compensation, relocation or unaddressed losses to the Village Grievance Committee. The unit will organize a meeting within 15 days from the date of formal receipt of the grievance with the complainants to resolve the issue using its traditional methods of conciliation and negotiation; the meeting will be held in a public place and will be open to other PAPs and villagers to ensure transparency. The report on the decision of the Village Grievance Committee must be in writing and must be signed by the members of the committee. If any members of the committee dissent from the opinion of the majority, those members can note their dissent as part of the report of the decision. The aggrieved party and the Project representatives should also sign and indicate their agreement or disagreement with the decision.</p>
2	<p>Stage 2: If either the DP or the Company is not satisfied with the decision of the Village Grievance Committee, or if the project is not abiding with the decision of the Village Grievance Committee, then either party can appeal to the District Grievance Committee. The appeal can be made directly by the Project or by the DP, or by the Village Grievance Committee on behalf of the DP. Other persons or organizations, such as local NGOs, mass organizations like Lao Women’s Union, or other representatives of the DP, can ensure that the appeals are forwarded to the District Grievance Committee. The District Grievance Committee will keep a public log of all claims and grievances it receives, including a summary of the decisions made, and must also make public all reports on the decisions made by the committee. 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. Representatives from the Company must be available to provide any necessary information to the committee on entitlements, compensation rates, mitigation measures, and any other relevant information concerning the grievance. The report on the decision of the District Grievance Committee must be in writing and must be signed by the members of the committee</p>
3	<p>Stage 3: If the DP is still not satisfied with the decision of the DGC or if the Project does not abide by the decision of the District Grievance Committee, an appeal can be made to the Provincial Grievance Redress Committee (PGRC). The PGRC will examine and consider the complaint or grievance in consultation with representatives of MONRE and the Company within 20 days after filing the complaint.</p>
4	<p>Stage 4: If the DP is still not satisfied with the decision of the PGRC, or in the absence of any response within the stipulated time, the DP can submit his/her grievance to the Court of Law at the request of the PAPs and/or representative of local non-profit organizations or mass organizations or the Village Grievance Committee on behalf of the PAPs, or at the request of the Project. The Court of Law will follow up with relevant authorities to make the final and binding decision.</p>
5	<p>Stage 5: In case that the Project is found responsible for negligence of compensation, the Project will cover in full all administrative and legal fees incurred by the PAPs in the grievance redress process at the district, provincial and MONRE levels and in the Court of Law. Claim for such payment should be made by the PAPs to the Project staff of ESD, and a copy of such claims also submitted to MONRE for record and information. Complaints and grievances concerning impacts during construction will be considered up to and for no more than one year after the official date of completion of construction of the 230kV-T/L.</p>

Table 79 Grievance Redress Procedures

457. Dissemination of information on the above grievance procedure was done during village consultation meetings in the project area to inform or invite PAPs how to access it. To date, there is no formal claim by individual HHs from 2LR.

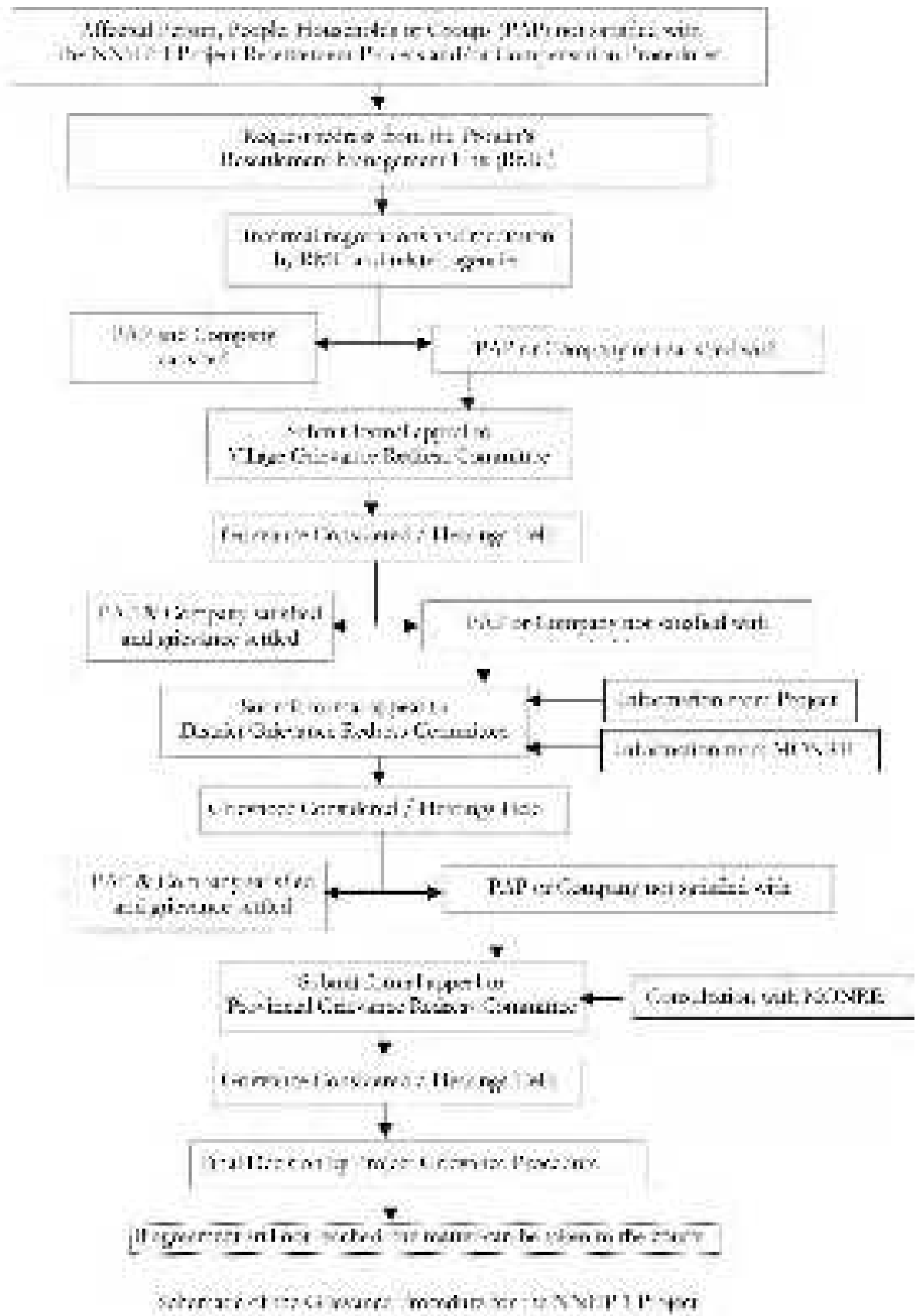


Figure 68 GRM Flowchart

CHAPTER 11 - Social Inclusion

11.1 *Gender*

458. The project will have positive influence on some of the issues described in previous sections such as replacement land titles in both husband and wife's names and compensation via bank accounts in both husband and wife's names.
459. To facilitate good integration into information disclosure, project activity coverage and equitable decision making, the Project gives equal weight to recruiting female field staff, prioritising those with knowledge of Hmong language. The Project's community consultation and development team is composed of people of Hmong and Khmu origin. Communication methodologies include translation into Lao and Hmong languages, and reliance on visual communication guides for illiterate women or those with only functional literacy skills, as well as more formal written information (more details are outlined in the Social Impact Assessment).

11.2 *Ethnic Groups*

460. All households except 2 in 2LR villages are Hmong and fall under ADB SR3. An assessment of ethnic groups in the Project area as well as policies and activities to address the Project's compliance with Indigenous People's safeguards can be found in the overall REDP, chapter 7. This chapter also includes a discussion of Broad Community Support of 2LR villages for the Project's commencement.

11.3 *Consultation with ethnic groups*

461. Recent consultations have been held in accordance with the policies outlined in the overall REDP with a summary presented in the previous chapter. Consultations have been held in Hmong language. Hmong staff with a diverse background in community development has been hired, facilitating meaningful consultations. As outlined above, the Project's Hmong architect, who participated in the consultation on house designs, has been an essential focal point in the recent consultations.
462. The Project also undertook a desk review and prepared a risk analysis of potential indirect impacts on other ethnic communities. The analysis showed that (i) no other village's access natural resources close to the Nam Ngiep River. Instead they use their own large water and forest resources nearer their own communities rather than walking several hours to the Nam Ngiep and areas occupied by villages in the PIZ (ii) no cultural systems or identities other than those identified in the REDP are substantially impacted by Project-inspired resettlement. Maps and a detailed analysis have been integrated into the Project's SIA (Chapter 16).

11.4 *Cultural appropriateness of project activities and mitigation measures*

463. As a result of meaningful consultations, the Project has adapted its plans and programs in accordance with requests by the PAPs with a special focus on cultural appropriateness addressed during several consultation meetings. This includes:
1. choosing of the resettlement site, joining Hmong communities from Hatsaykham
 2. land use planning

3. livelihood programs
4. measures to address vulnerability including poverty

11.5 *Additional measures regarding ethnicity*

464. Measures in addition to measures in relations to consultations and project adaptations, as outlined above, encompass:
1. Implementation of a cultural awareness program including training of young people in recording history as well as a collection and sorting of consequent recordings. (See Figure 69)
 2. Presentation of results in the resettlement site as essential part of the library/museum/cultural building
 3. An appropriate area for a cemetery will be selected by PAPs
 4. Impacts on graves will be compensated by appropriate cultural ceremonies to transfer the spirits prior to impacts on land
 5. Provision and conservation of a large forest area as part of the resettlement site for continuing possibilities to collect NTFPs
 6. Provision of a large area in the resettlement site for traditional Hmong festivities, including bull fights.



Figure 69 Hmong cultural artefacts used during spirit ceremonies

11.6 *Culturally appropriate Benefits*

465. SPS SR3 requires sharing of project benefits in a culturally appropriate way. As most of the PAPs

impacted by Land Acquisition and Resettlement, the majority of benefits described in this document goes to Hmong PAPs. In addition to what has already been described, these further include:

1. Raising income and housing to the nationally defined minimum standards, with a focus on culturally appropriate livelihood and house design choices
 2. Offering culturally appropriate livelihood development activities
 3. Establishing a cultural awareness program outlined in the SDP
 4. Implementing a scholarship program with quotas for (female) ethnic group students
466. The agreed payment of \$195,000USD per year during the Project's operation period into a community development program shall, according to Project policy, be used for community driven development and thus available to ethnic groups in the key Project villages. The affected communities shall be involved in the design of this program, as will local public institutions.

CHAPTER 12 - Institutional Arrangements

12.1 *The Institutions*

467. 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.
468. 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.
469. 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.
470. 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, sits with the ESD, to provide services to both EMO and SMO (See Figure 72).
471. The overall framework of GOL-Project-cooperation is shown in

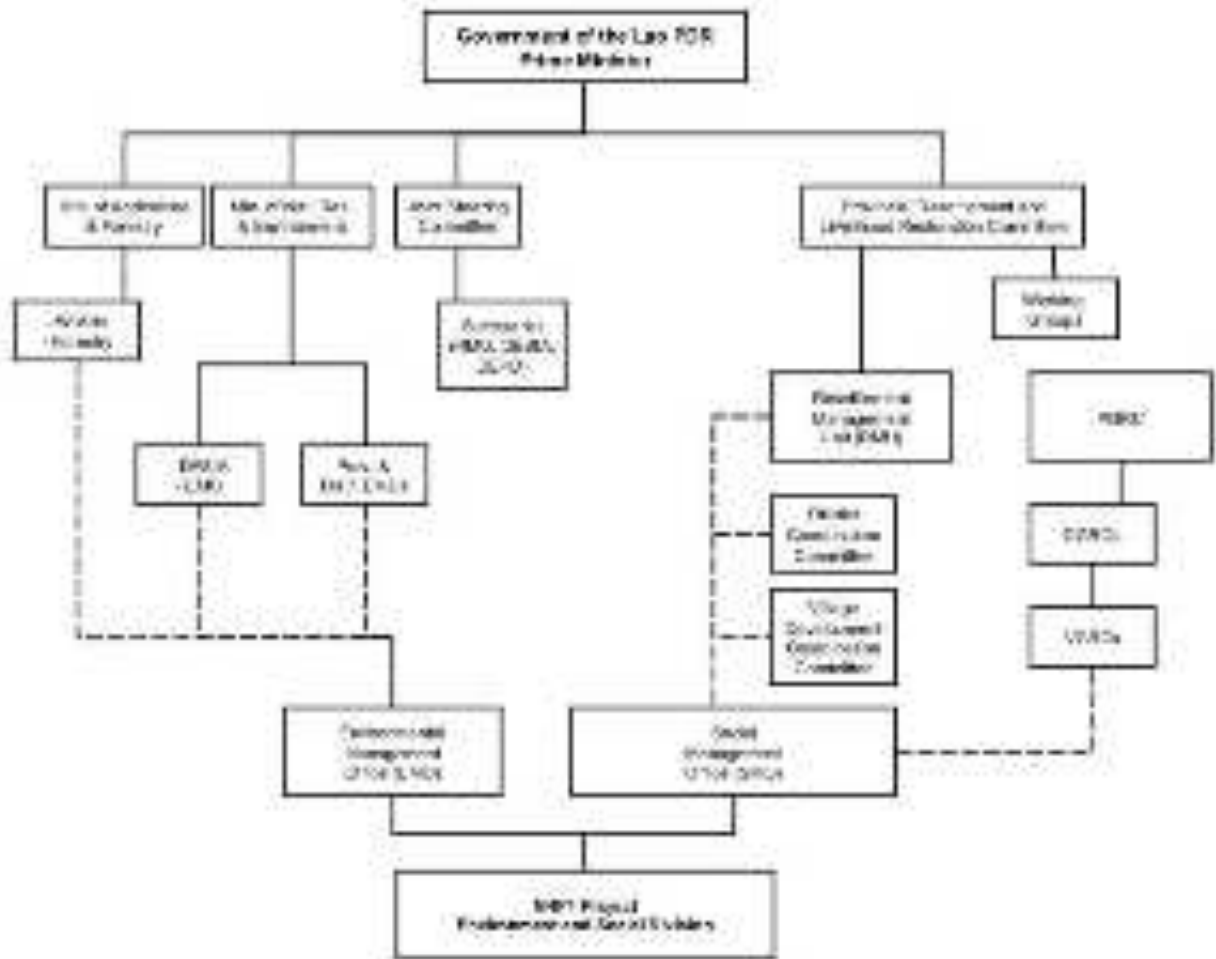


Figure 70 – Government Institutional Arrangements.

474. The structure on the operational level under the ESD, with the Project Lands Team managed by the SMO, and how it coordinates on land acquisition and compensation in Zone 2LR with the provincial RMU, is presented in Figure 71. **Error! Reference source not found.** A process coordinator on site is responsible for the implementation of the registration and compensation process. The day-to-day work is carried out under the coordinator’s supervision mainly by three different teams: the Household Interview Team consults with the PAPs on general information, bank accounts, grievances, and socioeconomic data. Based on this data, the Land Investigation Team assesses and measures impacts. The database and drawing team then processes this data by entering it into the database, preparing technical drawings of land impacts, calculating compensation values and preparing and printing the registration and compensation agreement forms, before they are returned to PAPs and GoL for agreement. All these teams are now based in Paksan, provincial capital of Bolikhamxay province, to facilitate daily interaction with the RMU. A site office in Sop Youak functions as a base for the Land Investigation Team, where staff and GoL counterparts are based during the asset inventory. A site office in Phalaveck (Hom district) facilitates the coordination with the DCC in Hom.

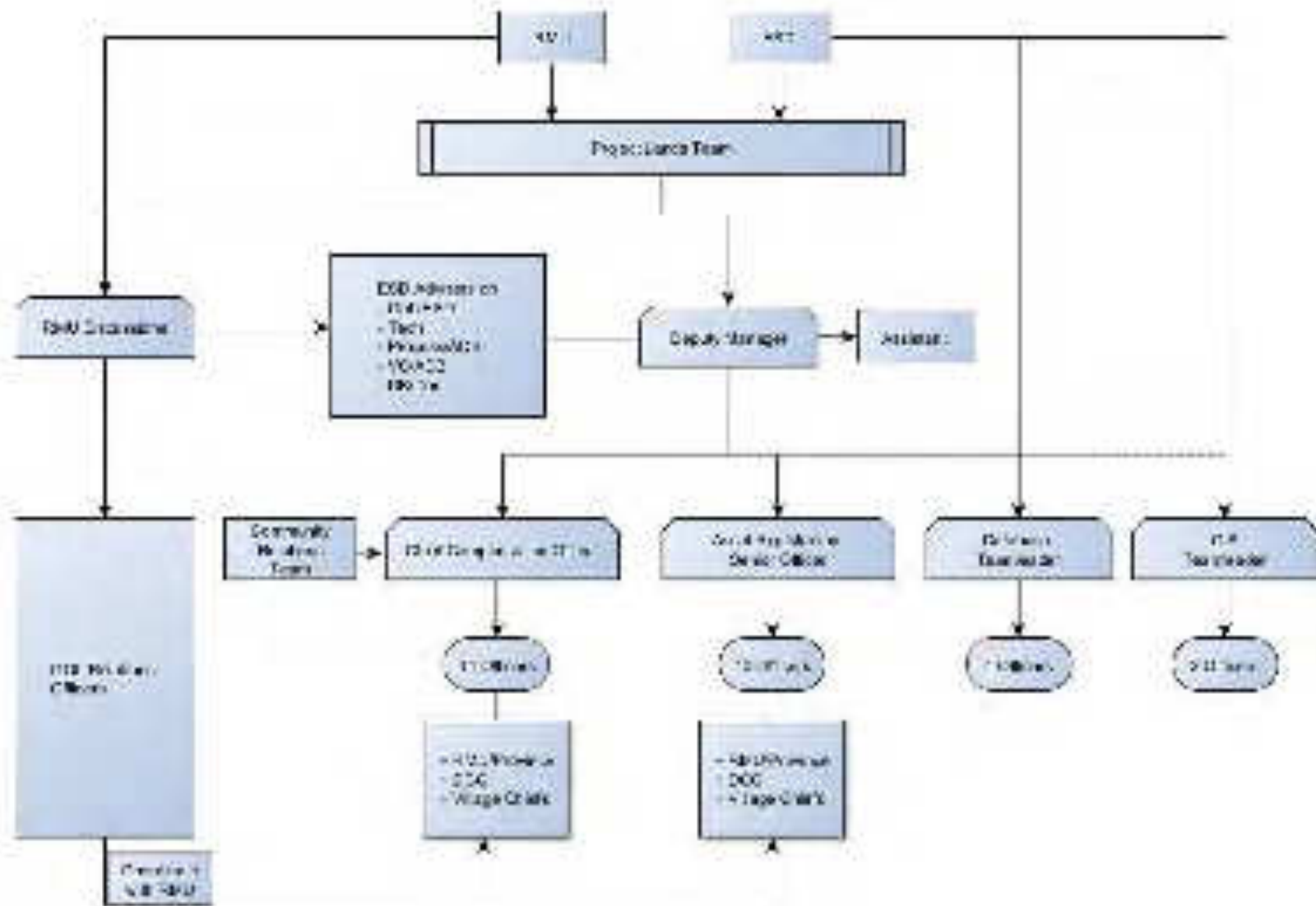


Figure 71 Institutional Arrangement on Operational Level

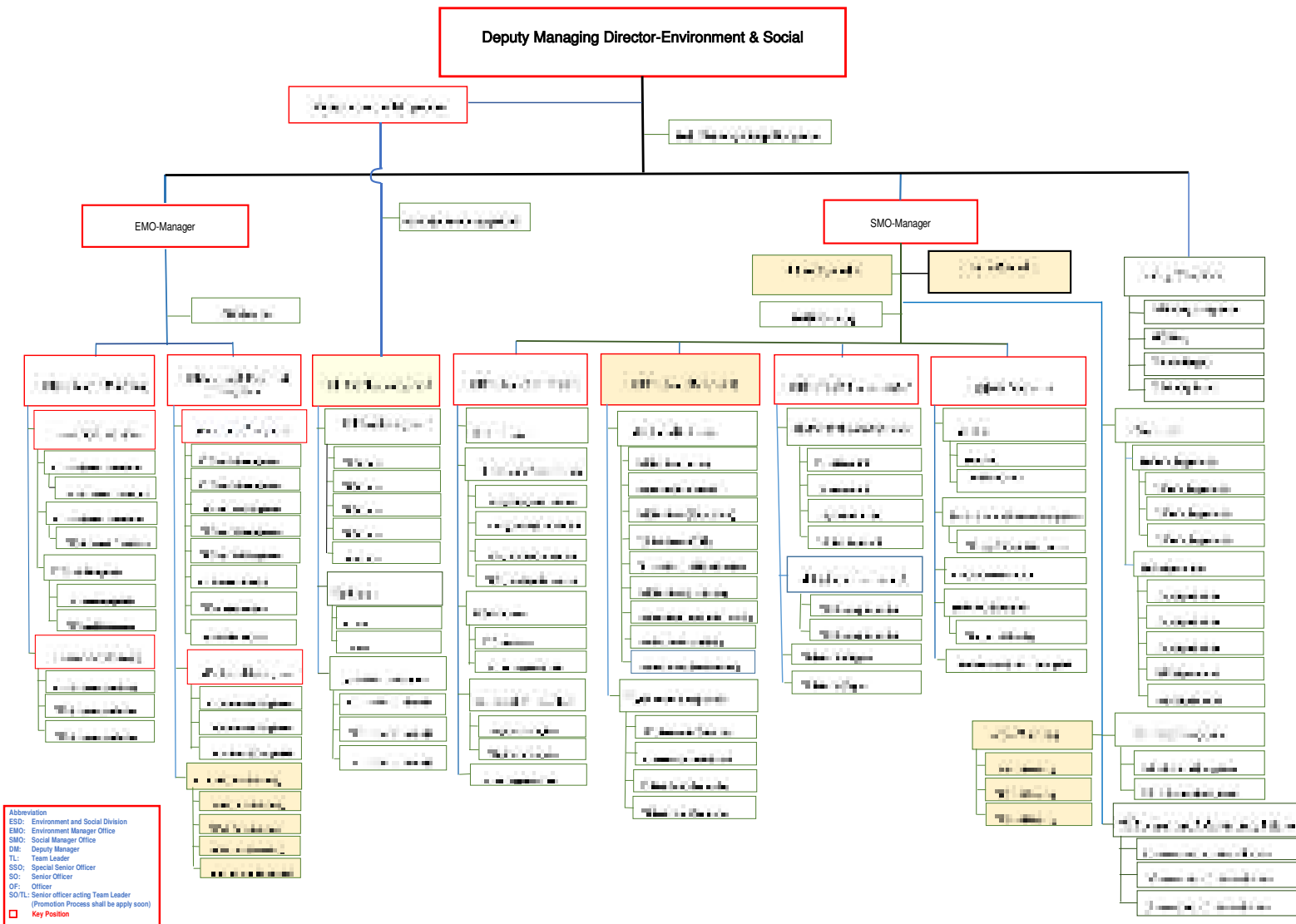


Figure 72. Organizational chart of the Environmental And social Division (2016)

12.2 Government Institutional Arrangements for the Project

475. 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.

12.2.1 Joint Steering Committee and Environmental Management Unit

476. 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.
477. 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.

12.2.2 Provincial Resettlement and Livelihood Restoration Committee

478. 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.
479. 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.
480. 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.

12.2.3 Resettlement Management Unit

481. 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.

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

12.2.4 District Coordination Committees

483. 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.
484. 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.

12.2.5 Village Development Coordination Committees

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

12.3 Overall Project Institutional Arrangements

12.3.1 Environment and Social Division

487. 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.
488. 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.
489. 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.
490. 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.
491. 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.

492. 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.

12.3.2 Information Management Section

493. 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

12.3.3 Database Team

494. 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

12.3.4 Knowledge Management Team

495. 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.

12.3.5 GIS Team

496. 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.

12.3.6 Environmental Management Office

497. 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.
498. 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.

12.3.7 Social Management Office

499. 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.
500. 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 72).
501. 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.

502. 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.

12.3.8 Infrastructure Section

503. 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.
504. 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).
505. 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

12.3.9 Resettlement Section

506. 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.
507. 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.

12.3.10 Resettlement Preparation Team

508. 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

12.3.11 Livelihood Team

509. 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

12.3.12 Relocation and Livelihood 2UR

510. In Zone 2UR, a site-office of the SMO was established and has been operational since 2015. From this site office, the Deputy Managers 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.

511. The main tasks include:

- Conduct regular consultation with the PAPs, 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

12.3.13 Social Development Section

512. 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.

513. 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.

514. 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.

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

12.3.14 Health Team

516. 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;

12.3.15 Education Team

517. 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

12.3.16 Ethnic and Gender Team

518. 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

12.3.17 Labour Management and Camp followers Team

519. 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 teams report directly to the SMO Manager:

12.3.18 Project Lands and Compensation Team

520. 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

12.3.19 Grievance Team

521. 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.

12.3.20 Government Relation and Community Relations Team

522. 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.

12.3.21 Socio Economic Monitoring Team

523. 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.

CHAPTER 13 - Monitoring and Reporting

524. There are four broad elements of monitoring and reporting pertinent to the resettlement of 2LR villages:
- Acquisition of Lands and Compensation;
 - Re-establishment of Livelihoods; and
 - Community, Ethnic and Gender Development.
 - External Monitoring

13.1 *Internal Monitoring of Land Acquisition and Development*

525. The objective of internal monitoring is to ensure compliance with NNP1 policies and to resolve or remedy any outstanding issues. The Project's compensation database maintains a record of all compensation data which is then used to update quarterly Project monitoring reports. Specifically, internal monitoring for Zone 2LR addresses:
- (i) Changes in the numbers of PAPs and the types and extent of affected assets.
 - (ii) Details on the types and amounts of compensation and assistance (in cash and/or in kind); and evaluation of whether this assistance meets the NNP1 principle of replacement cost
 - (iii) Information provided to PAPs and outstanding issues
 - (iv) The level of satisfaction and/or concerns and needs of PAPs with the process to relocate their houses if any
 - (v) The identification of vulnerable households and respective follow up on their livelihood restoration
 - (vi) Grievances lodged and time taken to resolve them
 - (vii) Gender, livelihoods and social targets
526. The establishment of the internal monitoring section under ESD is covered in the REDP. The scope of work of the internal monitoring section in relation to Zone 2UR will be to assess compliance to meeting income targets as set by the CA.
527. The Project's Land team prepares monthly progress reports on the land acquisition and compensation activities using results from the database and the GIS system (household-specific compensation maps, database-generated compensation lists for finance, progress statistics on asset registration and compensation etc.), and submits it to the SMO manager. The report includes information on key monitoring indicators, namely:
- (i) Affected people and compensation: the number of PAPs by category of impact; the status of delivery of compensation and subsistence, moving and other allowances; timely provision of compensation before impact;
 - (ii) Information disclosure and consultation: number and scope of public meetings and/or consultations with PAPs; status of notifications to PAPs; summary of DP needs, preference and concerns raised and agreements reached during meetings and consultations.
 - (iii) Complaints and grievances: numbers of complaints received; summary of types of complaints received; steps taken to resolve them; length of time taken to resolve a grievance; outcomes; and, any outstanding issues requiring further management by district or provincial authorities or ADB assistance.

- (iv) Resettlement schedule: completed activities as per schedule; delays and deviances, including reasons; revised resettlement schedule.
 - (v) Coordination of resettlement activities with award of contract for civil works: status of completion of resettlement activities and projected date for award of civil works contracts.
 - (vi) Implementation problems: problems that have arisen, reasons and proposed strategies to remedy; outstanding issues.
528. Management assesses compensation progress and provides additional resources if necessary. All monitoring indicators have output data disaggregated by gender and ethnicity. On a regular basis, the SMO collates the monthly progress reports and prepares a quarterly Project monitoring report to be submitted to the EMU/RMU, MoNRE, and ADB.

13.2 Livelihood Restoration

529. There are two component of livelihood monitoring program
1. Long-term monitoring of household income and consumption to indicate if the CA targets have been reached; and
 2. Intensive short term monitoring of household well-being during the relocation and reestablishment of the resettlement villages.
530. In terms of long term monitoring, the project is committed to 3 targets specified by the Concession Agreement:
1. Poverty Elimination Target
 2. Income Parity Target
 3. Income Growth Target
531. The CA targets are high level targets that reflect the net impact of project activities, that is the sum of the negative impacts from land acquisition and resettlement and the positive impacts arising from the various mitigation measures, the Livelihood Development programs, plus the effects of the education, health, gender, ethnic and community development programs.
532. Overall impact is measured through the Comprehensive Socio Economic Survey. The baseline of this survey was undertaken shortly after closures, in October/November 2014. The survey will be undertaken every 2 years to assess whether the CA targets have been met. This survey includes evaluation of household income, consumption, savings, debt, education and health.
533. The Monitoring and Evaluation Team is also undertaking medium term monitoring of household economic status using a simplified consumption survey. Food consumption, savings, debt and other issues are also be included in the survey. Past experience has also shown that the presence of known, and experienced monitoring personnel in the resettlement village on a regular basis allows the monitoring team to identify and report emerging issues in the community.

13.3 External Monitoring

534. Annex C of the CA requires external monitoring of all Project activities, including those relating to Zone 2LR, to be carried out by the Independent Advisory Panel (IAP). Its task is to assess twice a year whether the Project is in compliance in its social and environmental mitigation measures with the

obligations outlined in the Concession Agreement and to advise on necessary corrective actions. The IAP liaises closely together with RMU and DCC Bolikhan towards this goal. Their reports are publicly available on the Project's website. The IAP has been appointed and completed its seventh monitoring mission in May 2016. Further monitoring is carried out by the lenders, including by the ADB and the Lenders Technical Advisory (LTA), whose social expert last visited in December 2015. An Independent Monitoring Agency (IMA) has been recruited by GoL and the first exploratory mission of the IMA was conducted in June 2016.

CHAPTER 14 - Consolidated Budget and Schedule of Activities

14.1 Compensation and Resettlement steps and timeline

535. The number of affected households to be resettled is in theory high. A number of PAPs however might still choose cash compensation and to self-resettle either in the Project Area of Influence (likely in Hom District mainly) or elsewhere in the country. Such possibility seems high for the moment as the final compensation unit rates are rather high and may convince a number of PAPs that they will allow them to have a compensation sufficient for self-resettling.
536. Hatsaykham will resettle earlier in Q3 2016 and it will function as a pilot for the main resettlement program. It will provide the RMU and ESD the opportunity to test their assumptions, verify predictions, and work out solutions to problems before the main resettlement phase. By the time the 2LR PAPs resettle to Houay Soup, key infrastructures will have been completed and public services will either have started or be able to start.
537. Key dates for 2LR resettlement include (see timeline in Figure 74):
1. Asset Registration to be completed in Q2 2016 and decision by PAPs on their resettlement choice to be finalized in Q3 2016.
 2. Housing construction for 2LR in Houay Soup will be completed by early of 2017.
 3. 2LR PAPs will physically relocate to Houay Soup in Q2 2017.
 4. Self-resettlement is scheduled for the same time.
 5. Assets not compensated in kind will be compensated in cash at the time of resettlement to ensure effective investment for livelihoods at the resettlement site.
538. Compensation and Resettlement steps are summarized in Table 80 and Table 81 **Error! Reference source not found. Error! Reference source not found.** respectively, complementing the timeline in the Gantt-Chart of Figure 74.

Step	Activity	Responsible	Related document	Tentative time frame
Overall Census	Collect census data as well as village profile information in impacted areas of Zone 2LR	SMO	Census Database	Q4 2014
Preparation	Develop a separate LACP-U2LR for ADB's review. ADB to advice on whether it meets ADB SPS requirements for a satisfactory LACP.	SMO	This LACP, with regular updates.	Q4 2015

Step	Activity	Responsible	Related document	Tentative time frame
Step 1	Update of training of ESD staff and DCC in Confirmation Survey Training in compensation procedure to DCC	Supervisor Engineer Compensation team of SMO	Final design for Zone 2LR in Houay Soup Census HH lists Grievance procedures Part III, Annex C, CA	Q4 2014
Step 2	Asset registration / IOL	Compensation team of SMO DCC VDCC/VRC PAPs	Final design of Zone 2LR area in Houay Soup Census incl. household lists	Q1 until Q2 2016
Step 3	Final IOLs in sections resulting from Confirmation Survey Update LAR and Compensation Plan	Compensation Team of SMO ESD team	Final IOLs	Q2 2016
Step 4	Calculate compensation amounts based on the approved rate by PRLRC and IOLs; print compensation declaration forms for every DP including final calculations and total amount of compensation	Compensation Team of SMO RMU/DCC to approve	Declaration for Affected People Form F and G.	Q2 2016 until Q3 2016
Step 5	Sharing REDP U2LR with the ADB and RMU; Availability of REDP U2LR Executive Summary in Lao version for the review of PAPs upon request	SMO Manager	Final Land Acquisition and Compensation Plan	August 2016
Step 6	Signatures on Compensation Forms F and G and collection of bank books	Compensation Team of SMO	Forms F and G.	Q3 2016
Step 7	Compensation payment to the PAPs	Compensation Team of SMO PAPs, VDC DCC, RMU	Receipt of Compensation Payment on Form G.	Q3 until Q4 2016

Step	Activity	Responsible	Related document	Tentative time frame
Step 8	Handover of bank account book to PAPs and sign on copy to verify correct bank transfer Objections will be directed to Village Head following grievance procedures	PAPs PAPs, VDC/VGC DCC, RMU	Form G / Bank account book Grievance procedures	Q4 2016
Step 9	Original Compensation payment forms and receipts/ documentation to be kept at ESD and copy should go to RMU	Compensation Team of SMO	Receipt of Compensation Payment in Form G.	From Q4 2016 onwards
Step 10	Submission of final compensation report to ADB and GoL.	ESD Manager	Final compensation report	Q2 2017

Table 80 Compensation Steps

Step	Activity	Responsible	Related document	Tentative time frame
1	Meeting with each PAP on choice survey, self-resettlement or Houay Soup resettlement, house dismantling house, transportation	Resettlement and Project Lands teams		Q2-2016
2	Establish Village Relocation Committee (VRC): establish, training organize relocation, quality and quantity checking training	Resettlement Preparation team		Q3-2016
3	Detail budget plan for rice transition support, transportation	Resettlement Preparation team		Q4-2016
4	Contract sign with suppliers	NNP1 Procurement		Q1-2017
5	Awareness training on using water supply, electricity, new house	Resettlement Preparation team		Q4-2016 until Q1 2017
6	Schedule of dismantling house and moving to Houay Soup; rice and transition support,	Resettlement Preparation team and Village Relocation Committee (VRC)		Q4-2016
7	Relocation	Resettlement Preparation team and VRC		Q1-2017
8	Old village Cleaning	Villagers and VRC		Q1-2017
9	Receiving transition support for period of 3 months	Resettlement Preparation team		Q1-2017
10	Monthly Meeting with Village Relocation Committee	VRC		Q1-Q4 2017

Table 81 Resettlement Steps

14.2 Overall SMO Budget

539. The environmental and social budgets are connected in the way that by avoiding, mitigating, and minimizing environmental impacts, it can be considered that the social impacts will be less severe. The social budgets of the Project are projected to be USD\$44M before COD and USD\$14.4M post-COD during the stabilization phase. An amount of USD\$1.9M before COD and USD\$1.7M after COD is for the contingencies of both environmental and social components. The environmental budget can be found in the EIA. Overall ESD costs and costs for GoL-Project institutions are also outlined in the EIA.
540. The budget is organized along the projected budget in the Concession Agreement. Budget figures are divided into pre-COD, i.e. before January 2019, and post-COD stabilization phase (5 years after COD). Additional monitoring will continue until 10 years after COD, for which additional costs of USD\$2.1M are estimated, not included in the overall budget presented. The budget is insofar indicative as all social mitigation measures are limited by scope.

Overall Budget	Pre-COD in USD\$	Post-COD Stabilization Phase in USD	Total in USD\$
Resettlement site development	18,108,000	80,000	18,188,000
Compensation	8,669,388	1,445,000	10,114,388
Livelihood restoration programs	4,022,600	3,360,000	7,382,600
ESD – SMO incl. staffing	13,238,000	9,466,000	22,704,000
Total	44,037,988	14,351,000	58,388,988
ESD Contingencies (SMO + EMO)	1,903,963	1,734,998	3,638,961

Table 82 Overall NNP1 SMO Budget (REDP)

541. Details on reallocation of funds, updates of budgets and disbursement of funds are presented in Chapter 19 of the overall REDP.
542. Prices used in this budget calculation are the ones of the Access Road compensation unit rates and other market prices of the first half of 2014. Budget figures provided here are from the main REDP in 2014 as an updated budget will need to combine updated numbers of households, assets and compensation unit rates and be approved by the BoD of NNP1PC. This final step is currently ongoing.

14.3 Resettlement site development

543. The resettlement site development budget of USD\$15,106,400 pre-COD and USD\$50,000 post-COD is considered as a joint budget for Z3 and 2LR and as such just here reprinted from the overall REDP.

Plan components	Assumptions made in the preparation of the budget	Pre-COD	Post-COD
Houay Soup Resettlement site development		28,493,700	50,000
UXO survey	<i>Lump sum of 780,000\$ (in Environment budget)</i>		
Infrastructure development		11,767,500	-
The budget covers: <ul style="list-style-type: none"> • Infrastructures: roads, electricity distribution, water supply, bridge, an irrigation system, a solid waste disposal, ponds, Land levelling for house construction • Land survey and acquisition • The Pilot Farm (resettlement centre) • Houay Soup certificate 	Access road & rural roads for :3,361,500 Access bridge: 1,620,000\$. Irrigation: 2,869,000\$; Electricity: 322,000\$ A solid waste disposal: 159,000\$ Land level for house construction: 3,000,000\$ Water supply: 857,196\$; Land acquisition: 320,000\$ Pilot farm: 99,000\$		
Agriculture Land development		1,563,000	-
The budget covers: <ul style="list-style-type: none"> • Land development and fencing • Soil improvement 	Land development will concern a currently estimated 434 ha of paddy field (1,500 \$/ha), 434 ha of gardens (500 \$/ha) and 600 ha of grazing land (167\$/ha) for a total of 968,200\$. Soil Improvement of irrigated paddy and crop cultivation is budgeted for 595,000\$		
Community Building		1,717,000	-
The budget covers the construction of: school, health centre, village community hall and offices, market, bus stop, playground			
Residential Building		12,950,500	-
The budget covers the construction of approximately	551 housings for 12,830,800\$ estimated the number of the house, small size 126nos, medium size		

Plan components	Assumptions made in the preparation of the budget	Pre-COD	Post-COD
551 housings and the housing design	326 nos and large size 114 nos. Assuming a unit price of 18,500\$ for small size, 23,000\$ for medium size and large size 26,000\$. Housing most likely to be in cement blocks. A lump sum of 110,000 is provisioned for the design 6,800\$ are provisioned for HSK assets transportation and 2,400\$ for visits of 2LR villagers		
Participatory Land Use Planning (PLUP)	A lump sum for PLUP before and after COD	50,000	50,000
Land Titling			
Budget covers issue of land titles and updating of land titles	A lump sum before and after COD is considered. Assuming 4 land titles per each 400 HH at 125\$/each	200,000	
<i>Additional Land acquisition in Houay Soup</i>	<i>Estimate is very rough because of uncertainty of land ownership and opportunistic claims.</i>	246,000	-

Table 83 Sub-Budget Houay Soup Resettlement Site Development Costs Schedule of LAC Activities and Resettlement

544. The resettlement site development started in 2016, encompassing two phases:
1. In Phase 1 from early 2016 until August 2016, the resettlement site will be prepared for the early resettlement of Hatsaykham households, including the construction of houses, provisional public infrastructure, paddy rice fields demarcation and allocation, and pasture development including soil improvement. For infrastructure development, start of construction was depending on the completion of the land acquisition and started in February 2016.
 2. In Phase 2, extending from September 2016 until early 2017, the remaining houses for villagers from 2LR will be built, public infrastructure finalized, paddy rice fields, pasture, and cash crop fields developed, and an irrigation system for the paddy rice fields installed and becoming functional when re-regulating reservoir becomes operational
545. The summary timeline is found in below.

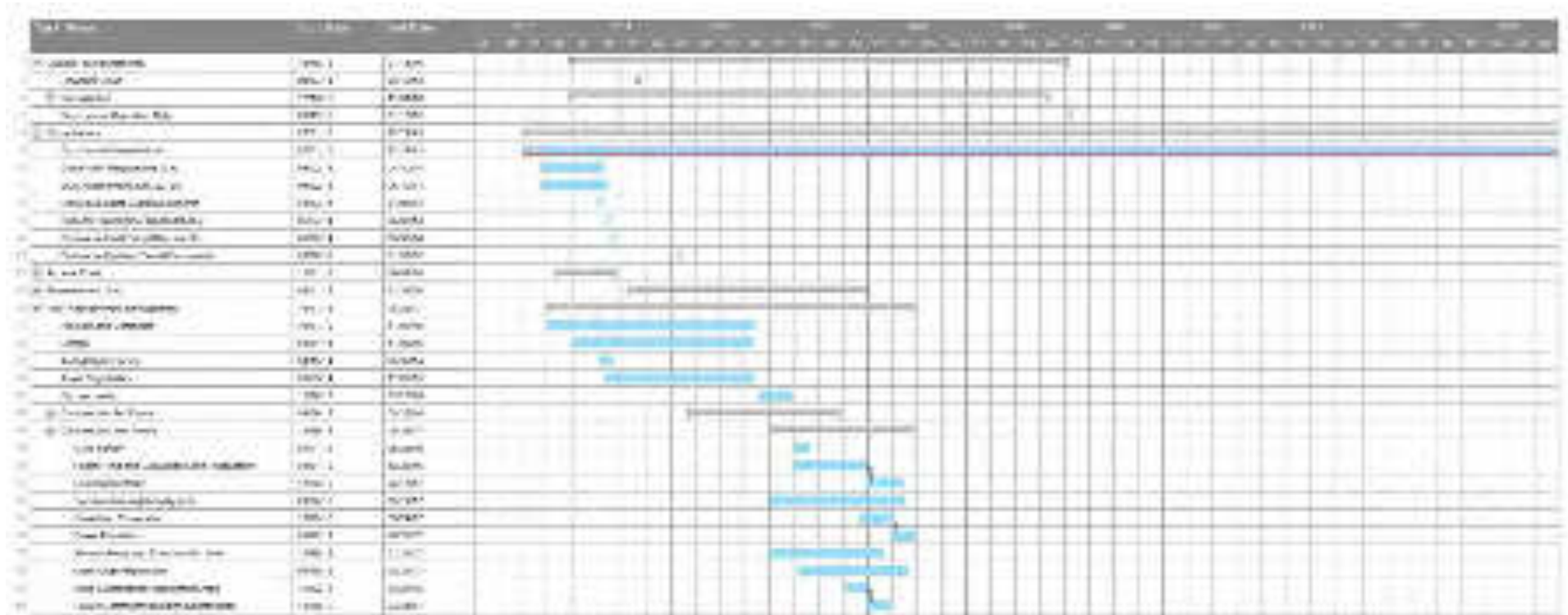


Figure 73 Timeline of Project and Houay Soup development (Update: June 2016)

14.4 Unit Rates

546. Unit rates have taken time for the PRLRC to finalise. Rates for the Access Road were agreed in early 2014 by the PRLRC, then chaired by the Bolikhamxay Provincial Governor. However, reorganisation of provinces and transfer of some districts where Project impacts would be felt, from other provinces to Xaysomboun, led to the Chair being transferred to the newly established province and new District Coordination Committees and RMU being appointed in Xaysomboun. This meant that earlier agreed unit rates and cut-off date had to be revised and re-issued based on extensive negotiations with PAPs in Zones 2LR, 2UR and 3.
547. Unit rates were finally agreed between PAPs and GoL in July 2015. The revised rates were confirmed in August and disseminated in August and September 2015 to all PAPs in all Zones, and are included in this REDP-Z2LR as Annex A. As soon as asset registration was completed the Project has prepared comparative household packages for Zone 2LR PAPs, to provide them with the full information of what they are entitled to if they move to Houay Soup or if they opt to take cash compensation. The packages will be discussed on a household-by-household basis from mid-2016, and the final decision made in Q3 2016.Houay Soup

14.5 Compensation and Livelihood Budget

548. The number of households presented in this REDP update comes from the census that has been organized in mid-2014 after the completion of the REDP, but the final compensation rates have just been acknowledged by the PRLRC and disseminated in early September 2015.
549. Budget figures provided here are from the main REDP in 2014 as an updated budget will need to combine updated numbers of households, assets and compensation unit rates and be approved by the BoD of NNP1PC.
550. For budgeting purposes the Project estimated cost of LAR for Zone 2LR as per REDP, until an updated budget is approved by the BoD. The estimated compensation costs are outlined in Table 84 and the Livelihood Restoration Program costs are in Table 85. These numbers do not include the overall construction costs for replacement of housing, community assets, irrigation systems, etc. It also does not include the Project’s implementation costs, which are paid from the overall staffing budget of the SMO.

Plan components	Assumptions made in the preparation of the budget	Pre-COD	Post-COD
Compensation		4,509,000	0
<ul style="list-style-type: none"> • House and Moveable asset dismantle cost • Transportation • Temporary closure of shops 	Assumptions: 384 housing units dismantled at 750\$/unit and transported at 1,800\$/unit (2,800\$/unit for Houaypamom) 45 shops closing 2 weeks and losing 100,000 kips business per day means ±21,000\$	1,037,000	0

Plan components	Assumptions made in the preparation of the budget	Pre-COD	Post-COD
Fruit trees	33,500 trees with various unit prices updated in January 2014	896,000	0
Trees and access to remaining trees	172,600 trees with various unit prices updated in January 2014 Access by boat to remaining plantations across the reservoir for a lump sum of 64,000\$	1,315,000	0
Community and Cultural site (ceremonies for graves)	Rounded lump sum from a rough estimate (TBC)	268,000	0
Agricultural land (Paddy field)	Estimates: 265 ha at 3,750\$/ha	993,000	

Table 84 Cost calculation for expected Zone 2LR compensation (according to 2011 field survey figures and updated rates of January 2014)

551. All land acquisition, compensation and resettlement costs for Zone 2LR are financed using resettlement compensation funds of NNPI. The Project's obligations to mitigate impacts are limited by scope and therefore the final budget will be presented in the "Final Compensation Report for Zone 2LR" at the end of 2017.
552. The budget for the Resettlement of 2LR villages encompasses several positions in the overall SMO budget. This includes budget for compensation and livelihood activities. Additionally, the Project will invest in qualified staff in appropriate numbers to support these different activities; staffing budget is presented together with the overall SMO Budget above. Overhead costs for surveys are also included there. Health education and training, camp followers, labour management, and education programs are described in detail in the SDP, as is the cultural awareness program and respective budgets can also be found in the overall REDP, Chapter 19. They overlap strongly with livelihood restoration programs for PAPs addressed in this REDP U2LR.
553. Below numbers are based on the overall livelihood program, divided among the beneficiaries, which include in different quantities PAPs from Zone 2UR, Zone 2LR, Zone 3, and Zone 5 based on number of households in the 2014 REDP.

Plan components	Assumptions made in the preparation of the budget	Total Pre-COD	Total Post-COD	Estimated Quota 2LR	2LR Pre-COD	2LR Post-COD
Livelihood restoration programs		4,022,600	3,360,000		2,020,355	975,906
Food security	Rice supplement program of 1,291,000 (assuming 0.7 kg rice per head per day) before COD + some rice facilities and 1,017,000 of rice supplement	1,291,000	1,017,000	92.1%	1,189,011	936,657

Plan components	Assumptions made in the preparation of the budget	Total Pre-COD	Total Post-COD	Estimated Quota 2LR	2LR Pre-COD	2LR Post-COD
	program after COD					
Transitional Allowance		201,000		88.9%	178,689	-
The budget covers: <ul style="list-style-type: none"> • 3 month allowance in cash • 3 month allowance in kind • 1 year support for Vulnerable PAPs (cash and food support other than rice) 	400 PAH at 30\$ each for 12,000\$ 3,000 PAP at 46\$ each for 137,250\$ 50 PAH at 120\$ each for 6,000\$ 250PAP at 180\$ each for 47,750\$				-	-
Resettlement preparation						-
Budget covers study tours, training, focus groups, etc. for preparing PAPs to new livelihoods	Lump sum	50,000		62.3%	31,150	-
Agricultural extension & on-farm trials					-	-
Budget covers trials, demonstration, study tours, farmers' schools	Lump sum	100,000		62.3%	62,300	-
Support to PAPs initiatives for establishment of providers of agricultural inputs & services					-	-
This budget covers equipment and facilities for farmers' groups initiatives regarding seedlings/ seeds and fingerlings/young animals production, mechanized services for planting/drying, etc.	Lump sum of 137,600\$	137,600		62.3%	85,725	-
Income restoration: the budget is indicative as the allocation will be dictated by the wishes coming from the communities For Rice it involves particularly the provision	198,000\$ is booked for the Rice component, 61,000\$ is booked for Cash crops & fruit trees, 386,000\$ is booked for	760,000	63,000	62.3%	473,480	39,249

Plan components	Assumptions made in the preparation of the budget	Total Pre-COD	Total Post-COD	Estimated Quota 2LR	2LR Pre-COD	2LR Post-COD
<p>of seeds, agricultural tools, and soil improvement and training in the different zones</p> <p>For Cash crops & fruit trees it includes particularly the provision of seeds/seedlings/saplings , bio-fertilizers, lime or bio-pesticides and training</p> <p>For Livestock it includes the provision of animals (breeders), pens, vaccination, pasture development and training.</p> <p>For Aquaculture it includes the provision of fingerlings, ponds/cages and feeds as well as training and fisheries co-management.</p>	<p>Livestock and 178,000\$ is booked for Aquaculture.</p>					

Table 85 Sub-Budget Livelihood Restoration Program Zone 2LR



Figure 75 Village leaders from Hatsaykham explain the Resettlement site to villagers in Sopyouak during consultation meetings on 3rd of September 2015

This version of the REDP-U2LR has been published in October 2016.

This REDP-U2LR will be revised whenever major mile stones have been reached and/or new information is available to integrate.

Part VI – Annexes

List of Annexes

Annex A – Compensation Unit Rates provides the agreed compensation unit rates as set by the PRLRC following consultations with PAPs, GoL, and Project. This includes Decree 1003 and the Addendum 792. Unofficial English translation is included.

Annex B1 = Inventory of Loss on Land and other assets, Zone 2LR

Annex B2 = Census information on People, Zone 2LR.

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. Aggregated data is presented in the main text of this REDP Update

Annex C = Updated Consultations Documentation: provides documentation of community consultations since the publication of the main REDP.

Annex D = Government of Lao Decrees (mandate 694 and 695)

Annex E = Land title documents for Houaysoup Resettlement Area

Annex F = Self-Resettlement Plan format