


NORTHERN RURAL INFRASTRUCTURE DEVELOPMENT SECTOR PROJECT

Safeguards Monitoring

(Package 7-3 for Year 2015)

Second Mission Report

Prepared by:
Faculty of Environmental Sciences
National University of Laos

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Acronyms

ADB	Asian Development Bank
DAFO	District Agriculture and Forest Office
DBST	Double Bitumen Surface Treatment
DAFOs	District Agriculture and Forestry Offices
DCO	District Coordination Office
DONRE	District Office of Natural Resources and Environment
EA	Executing Agency
EGDPs	Ethnic Group Development Plans
EMO	Environmental Management Office
EMP	Environmental Management Plan
FS	Feasibility Study
GAPs	Gender Action Plans
GICs	Grant Implementation Consultants
IEE	Initial Environmental Examination
IPPs	Indigenous Peoples Plan
LARC	Land Acquisition, Resettlement and Compensation
LFNC	Lao Front for National Construction
LPDR	Lao People's Democratic Republic
LWU	Lao PDR Women Union
MC	Main Canal
MAF	Ministry of Agriculture and Forestry
MONRE	Ministry of Natural Resources and Environment
NPMO	National Project Management Office
NRIDSP	Northern Rural Infrastructure Development Sector Project
NSC	National Steering Committee
PAFO	Provincial Agriculture and Forest Office
PAM	Administration Manual
PONRE	Provincial Office of Natural Resources and Environment
PONRE	Provincial office for Natural Resources and Environment
PPO	Provincial Project Office
PSC	Project Steering Committee
RAPs	Resettlement Action Plans
RPs	Resettlement Plans
SIA	Social Impact Assessment
SME	Safeguards Monitoring and Entities
SRI	System of Rice Intensification
LWU	Lao Women Union
WUGs	Water User Groups

Executive Summary

A. Introduction

This safeguard monitoring and evaluation report (second mission for 2015) is to present the results of the field monitoring survey conducted from 2 to 15 January 2016. Detailed Activities of field monitoring survey are outlined in the Annex 3. The purposes of the safeguards monitoring mission are to monitor and evaluate the implementation progress of EMP, EGDPs, GAPs, and RAPs in 26 subprojects with more focus to 8 subprojects being constructed. Apart from the regular monitoring, awareness raisings and demonstrations of pesticides concerns to some selected communities were also conducted during this mission. The mission was participated by the representatives of PPOs, DCOs, PONREs, DONREs, village authorities, villagers and technical officers from Plant Protection Center-Department of Agriculture (to conduct the pesticide study on site).

Main activities undertaken during the mission include: i) consultations with stakeholders e.g. PPOs, DCOs, WUGs, AHs and villagers, ii) site visits of all subprojects, iii) water sampling and testing for 38 samples, iv) study of pesticides use concern; including soil, water and crops testing in 6 subprojects, v) discussion on issues related to gender and ethnic minority and vi) awareness raising on pesticide use concern in 7 subprojects. The monitoring considered both environmental and social safeguards; that potentially caused by implementation of subprojects. These include: water and soil quality, waste management on site, erosion/landslide, terrestrial and aquatic resources and habitat, sediment transport, dust and noise, gender and ethnic minority people and vulnerable people; particularly persons affected by project implementation.

At the end of each mission in provinces, the meeting for feedback sessions were undertaken with the PPO managers of 3 provinces and PONREs. This is to make sure that PPOs are well informed about the key findings from this safeguard monitoring for further actions of proper mitigations and actions. Each feedback was involved by the PPO, DCOs and PONRE.

B. Background

The Northern Rural Infrastructure Development Sector Project (NRIDSP) has been implemented in four (4) provinces of Bokeo, Luang Namtha, Phongsaly and Oudomxai since its practical commencement with the fielding of Grant Implementation Consultants (GICs) in August 2012. The Project aims at enhancing rural inhabitants' access to, and participation in the market economy to improve food security and livelihoods.

The NRISDP has four main outputs: (1) production and productivity enhancing rural infrastructure constructed and/or rehabilitated; (2) productivity and beneficial impact enhancing initiatives adopted; (3) capacities of national, provincial and district agencies strengthened to enable a sector development approach; and (4) efficient and effective delivery of Subprojects and Project management. There are 9 subprojects of year 1, 9 subprojects of year 2 and 8 subprojects of year 3 in 9 districts of three provinces of Bokeo, Luang Namtha and Phongsaly.

With full implementation of environmental and social safeguards adoption (IEE, EGDPs, RAPs GAPs) of the Project, an independent safeguards monitoring team is required to monitor and evaluate the implementation and progress of the environmental and social safeguards policy.

The environmental and social safeguards monitoring for the subprojects have been implemented since 2013 by local independent agency (Faculty of Environmental Sciences; National University of Laos). In the past, different missions have been undertaken; including 3 monitoring missions in 2013, 2 missions of 2014 and one mission in 2015. The missions have covered 9 subprojects of year 2013, 18 subprojects for 2014 and 26 for 2015. It was noted that no major issues reported in the previous monitoring reports and no complaints or concerns previously raised by the beneficiary communities and affected households; excepting the case at Mongchao village. All minor social issues were mitigated by local committees.

C. Methodology for Safeguard Monitoring and Evaluation

The methodologies for monitoring and evaluation are: i) screening of IEE reports of subprojects of years 1, 2 and 3, ii) site inspections and observations on construction sites, iii) meeting with PPOs and DCO iv) Consultations with beneficiary communities, affected HHs and village authorities with the participation of PPOs, DCOs, PONREs, DONREs, v) Water quality monitoring, vi) pesticide use study through soil, water and crop sampling and testing as well as awareness raising to the communities concerning the impact of pesticide and prevention, and vii) discussion and feedback to the PPOs and PONREs for key findings and issues recorded during the mission.

D. Results of Environmental Safeguards Monitoring

The second monitoring of 2015 covered all 26 subprojects to investigate general environmental issues. However, only 8 subprojects of year 3; which are being constructed were fully inspected. In general, no major environmental issues were observed and reported on sites of the all subprojects. Key findings of environmental issues are briefed as followings:

Requirements of environmental permits/clearance

It is confirmed that IEE certificates of 21 subprojects issued and certificates of other 5 subprojects (3 subprojects in Bokeo and 2 subprojects in Phongsaly) of year 3 are being preceded by the provincial Departments of Natural Resources and Environment of 2 provinces.

Implementation of EMP and Compliance

As said the Initial Environmental Examinations (IEEs) for all subprojects were prepared and Environmental Management Plan (EMP) was also attached to the IEE report of each subproject. It is also noted in IEE reports that the Environmental Management Plan (EMP) for the improvement of the irrigation scheme will involve planning activities prior to construction, adherence to mitigation measures prior to construction, during construction and collaborative group action for improved use of water and agro-chemicals during operation.

During the second monitoring mission of 2015, it was noted that the EMP has been quite well implemented for subprojects of year 3; particularly during the construction. It is more obvious that the PPOs, DCOs and Contractors pay more attention to the environmental management on site and better understanding of the EMP. It was also confirmed that the EMP is considered in the contractual document. The evidence of improved EMP are: better waste management, good handle of hazard material, controllable spoil disposal, all the temporary camps provided with sufficient toilets and reportedly contractors' engineers well informed concerning the obligations to the EMP.

Water Quality Monitoring

As proposed in the EMP, the samples were collected from 24 subprojects (including baseline study for 8 subprojects of year 3) and water quality monitoring during the operation (subprojects of year 1 and 2). As said, no sampling for Mongchao-Komaen and Komaen-Phongsaek. As indicated in the EMP, 8 fundamental parameters were tested and analysed in the lab. Monitored parameters are: temperature, PH, DO, TDS, TSS, COD, BOD and total coliform group. The analysis results show that the most of parameters of samples collected at up and down streams of subprojects are not exceeded the National Environmental Standard of Laos.

Agro-chemical study

With the concerns of intensified chemical fertilizers and pesticides use in the irrigation command areas of subprojects, the agro-chemical study was conducted during the mission 2 of 2015; with support from Plant Protection Center of Agricultrue Department; Ministry of Agriculture and Forestry. The tests were conducted with GT test kits by the technical team of the Center. Such test kits can use for detection of the Organophosphate and Carbamate groups)

The scope of the tests covered 6 water samples, 18 soil samples and 18 plants (long bean, vegetables and banana) in the command areas of 6 subprojects in Luang Namtha and Phongsaly (first mission of 2016 will conduct in Bokeo). In addition to testing of samples for pesticides and chemical fertilizers, the awareness trainings and discussions were conducted with villages in 7 villages.

The results show that, none of 6 water samples show detection of substance load. It is assumed that the contaminant is transported by the river flow. For the soil, 8 out of 18 samples show no detection, 7 samples with low detection (considered low risk) and other 3 samples with high detection (high risk). 7 out of 18 plant samples show no detection, 7 samples show low contamination of agro-chemicals (low risk) and 4 samples with high contamination (high risk).

Besides the power point presentation, the participants also involve the demonstration and testing process to see the result and evidence for better understanding. It is said by the participants that they got better understanding and aware of the impact of agro-chemical use after they saw this kind of demonstration and evidence, Details of the agro-chemical study is attached to this report in Annex 2.

Wastewater Management

No discharge of wastewater from the worker camps into the natural stream was observed. Each camp is provided with the sufficient toilets with septic tanks. No wastewater from cooking and washing activities directly discharged into the natural water. It was also found and reported that workers are relying on rivers on sites for bathing and close washing.

Concerning the wastewater from the slaughterhouse into the irrigation canal; which raised during the first mission of year 2015, the owner has built wastewater pond; partially drained into his fish pond. No more wastewater potentially flows into the irrigation canal of Nam Gnang subproject.

Aquatic and Terrestrial Resources

As said, aquatic resources information was collected in the first mission of year 2014 for all 16 subprojects of year 1 and 2 subprojects. It is planned to collect the aquatic baseline data for 8 subprojects of year 3 during the first mission of 2016.

Reportedly, the fish migration would more possible during the wet season with high flow than during the dry season with low flow and limitation for fish migration. No fishing activities of the workers in the subprojects were reported or observed during the site visit; excepting the fishing net found at Houay MakMue construction site.

Fish conservation has been practiced in some subproject areas; including Nam Tin, Houay Xo, Nam Ma Oun, Houay Luang, Nam Ou and Nam Lan. It is recommended that the fish conservation zone would be also introduced and promoted for subprojects where possible e.g. Nam Xang, Nam Ngene and Nam Gna due to the potential of water availability at upstream, year-round water flow and surrounding environment.

Concerning the terrestrial resources, most of the rehabilitation and construction works of 8 subprojects are mainly taken place in the agricultural land areas. It was found that the abundance of the forest resources; including wild animals in the vicinity of subprojects have been disturbed and decreased. However, some forest resources is still available in the vicinity of subprojects of Nam Xang, Houay MakMue and Houay Sa II. During the site visits, the evidence of hunting wild animals was observed at the camps of Nam Xang and Houay MakMue subprojects. These include bird trapping nets, traps, dried wild animals. With this concern, the advice was given to the site engineers of subprojects, DCOs and PPOs to compliance with the EMP requirements.

E. Results of Social Safeguards Monitoring

Land Acquisition, Resettlement and Compensation

Based on the review of FS reports of 8 subprojects of year 3, it is noted that there are only 3 subprojects will result in loss of agricultural land areas and trees due to rehabilitation works of these subprojects. These include Nam Gna IV and V, Houay MarkMeu and Nam Chae irrigation subprojects. There are totally about 3750 sqm of agricultural land owned by 9 households and 167 trees owned by 4 households within 3 subprojects will be potentially affected. 8 of these 9 AHs loss less than2.7% of their total productive land and only 1 AH would loss more than 10% of his total productive land. During the site visit, the discussion with the village authorities and land owners took place to discuss of their voluntary donation. It is confirmed by the AHs that they voluntarily donate their land as contribution for the project without compensation by cash. It was confirmed no displacement of temporary and/or permanent structures of villagers from the rehabilitation of 8 subprojects of year 3.

With the preliminary design for subproject, loss of agricultural land of about 1,500 sqm will be affected and owned by 2 AHs for whom this would represent a loss of 2.2% of their total productive land. However, it is reported during the meeting and discussion with the village authorities and villagers of Ban Sivilay that there are 3 plots of agricultural land owned by 3 households (namely: Mr. Onh, Mr. Yiapaeo and Mr. Phoumtheth) due to new design. However, the PPO, DCO and consultant confirmed to review and revised the design to avoid such impact.

It is reportedly no loss of agriculture and residential lands and other asset and/or structures for other 4 subprojects. This is confirmed by the discussion with the village authorities and villagers in the villages during the site visit to these 4 subprojects.

Ethnic Group Development Plan (EGDP)

The information associated with the ethnic minority for 8 subprojects of year 3 is attached to the FS reports of subprojects attachment 7. The proportions of 4 main ethnic groups are comprise of 65.92% (2321HHs) of Lao-Tai Ethno-Linguistic Group, 3.27% (115 HHs) of Tibeto-Chinese group, 26.92% (948HHs) of Mone-Khmers group and 3.89% (137 HHs) Hmong-Iu Mien group. For the baseline information of subprojects of years 1 and 2 already outlined in previous reports.

Discussion with village authorities and villagers in the villages of subprojects of year 3, it is noted that the minority people were encouraged and prioritized to participate in the implementation activities of year 3 subprojects. These include the participation of minority people in the

consultations/meetings, trainings and support programs e.g. pilot agriculture productions e.g. SRI, peanut, chicken raising and improvement of contract farming system in subprojects.

Main outputs of the Project implementation of all subprojects are that the ethnic group of people get benefits from the improved infrastructures of years 1 and 2. These include the use of improved irrigation systems, improved access road from Mongchao-Phongsaek, access to agriculture land by the improved access roads along the irrigation canals, access to marketing, improved knowledge of agriculture practice, better understanding of gender and ethnic minority issues. In addition, the different ethnic minority groups are considered and involved in organizational structures of WUGs and grievance committees at village.

Gender Action Plans (GAPs)

The baseline data of the female population reported in the FS reports of 8 subprojects of year 3 is 10134 people (49%) out of 20648 total populations. It is indicated that the literacy rates of women with age of 18 years old and above in the villages are lower than men; excepting in Nam Chae subproject where the literacy of women is 71% and 70% for male population. With the project target, 30% of representative in the executive committees shall be women and at least 30% of participants in the meetings or consultation workshops shall be women.

It is also confirmed by village authorities and villages that the women are strongly encouraged to participate in consultations/meetings; including the trainings. This is to promote the women in the project implementation and benefits; more equal participation between men and women in the Project implementation.

It was confirmed and noted that more than 30% of executive committees in all subprojects of year 1 and 2 are women; with compliance with requirement. This can be confirmed by the WUG organizations of subprojects. However, percentage of female members in 2 subprojects of year 3 is only 22% for Houay Sa II and 25% for Houay Lieng subproject. No establishment for other 6 subprojects of year 3.

It is also noted that female employment of local villagers have been implemented in subprojects e.g. Nam Chae, Houay Sa II, Nam Ngaene TP and Houay MakMue. The payment for these female employees is different from male employees due to the different positions and responsibilities; not possible for equal payment for different positions. However, the same position among the female employees with the same position should be paid in the same rate in subprojects.

Public consultation and Information Disclosure

It is reported in the IEE reports of subprojects that 3 public consultations/meetings were carried out for the preparation of this IEE documents. This is to present the project information to the subproject beneficiaries, to district administrations and to the PAFOs and PONREs and also to invite comment from the public in accordance with the EIA Decree. During construction period and operation of subprojects, the villages in and around the subproject area will kept informed of construction activities that are likely to cause potential environmental and social impacts to the local communities. In addition to the consultations for the IEE process, the other consultations and meetings reportedly conducted for other studies.

It is noted that participation and feedbacks of the subproject beneficiaries during the consultations/meetings were recorded and photo documented and included in FS document. To verify the process of public consultations, the monitoring team discussed with the villagers of such meetings/consultations. It is confirmed by villagers that the several consultations were conducted by the projects pre-construction, during the construction and operation periods.

It is also said all processes of project implementation were participated by local people and authorities in subprojects. Besides the AHs, relevant stakeholders have been constantly

encouraged to join activities of the subprojects and well informed of the project information. The Project encourages and prioritizes the engagement of the ethnic minority people, women and other vulnerable people in the project implementation as much as possible.

F. Complaints

No any written complaints received from the beneficiary communities in all subprojects.

1 Introduction

1.1 Background of the Project

The Northern Rural Infrastructure Development Sector Project (NRIDSP) has been implemented in four (4) provinces of Bokeo, Luang Namtha, Phongsaly and Oudomxai since its practical commencement with the fielding of GICs in August 2012. The Project aims at enhancing rural inhabitants' access to and participation in the market economy to improve food security and livelihoods. In order to realize the aims above, the Project is addressing the two fundamental constraints of low agricultural productivity and limited market access through investments in i) rural infrastructure for irrigation and rural access roads; and ii) initiatives to achieve greater commercialization in agriculture by exploiting opportunities in the Lao PDR and neighbouring countries. Investments in rural infrastructure for irrigation and rural access roads include rehabilitating existing irrigation facilities and where appropriate, developing new ones, as well as rehabilitating and upgrading rural access roads from district centre and "kumban" (village cluster) centre to villages.

The NRISDP has four main outputs: (1) production and productivity enhancing rural infrastructure constructed and/or rehabilitated; (2) productivity and beneficial impact enhancing initiatives adopted; (3) capacities of national, provincial and district agencies strengthened to enable a sector development approach; and (4) efficient and effective delivery of Subprojects and Project management. There are 9 Subprojects of year 1; 9 subprojects of year 2 and 8 subprojects of year 3 in 9 districts of three provinces of Bokeo, Luang Namtha and Phongsaly.

Under the investment plans of the Project, about 27 subprojects of rehabilitation of existing irrigation facilities and rural access road will be implemented, which will supply sufficient irrigation water for agricultural area with a target of 2,900 hectares, and improve market accessibility with a target of 155 km(changed from 176 km to 155 km in MTR) of access road. However, only 26 out of 27 subprojects have been implemented.

In addition to the internal monitoring, the Project Administration Manual (PAM) dated October 2010 requires independent monitoring on safeguards to ensure that all recommendations and mitigation measures under the i) Environment Management Plans (EMPs); ii) Ethnic Group Development Plans (EGDPs or IPPs in PAM); iii) Gender Action Plans (GAPs); and iv) Resettlement Plans (RPs), of each Subproject are being implemented in accordance with the plans.

The environmental and social safeguards monitoring for the subprojects have been implemented since 2013 by local independent agency (Faculty of Environmental Sciences; National University of Laos). This includes 3 monitoring missions in 9 subprojects of year 1, 2 missions of 2014 for 18 subprojects and 2 missions of 26 of year 3. The main purpose of second safeguards monitoring mission of year 2015 is to monitor and evaluate the implementation progress of the EMP, EGPs, GAPs, and RAPs in 26 Subprojects. This report summarizes the findings of the second safeguards monitoring of 2015 by the independent monitoring team.

In addition to the PPOs and DCOs, this monitoring were actively participated by the representatives from PONREs and DONREs in subprojects. At the end of the missions, the feedbacks to the PPO managers were given. The purpose of the feedback is to brief the

monitoring outcomes for PPO to take remedial actions for improvement of environmental and social management and implementation.

1.2 Purpose of Monitoring Mission and Report

The purposes of this report are to:

- Meet with the requirement of full implementation of environmental and social safeguards adoption (IEE, EGDPs, RAPs GAPs) for the Project as per TOR for Package 7-3 of year 2015;
- Assess the attainment and sustainability as defined in the EGDPs, GAPs, EMPs and RPs. Particularly, on environmental issues, the SMEs will provide recommendations for any organizational or methodological improvements with an aim to ensuring the sustainability of the government's internal capacity of environmental monitoring;
- Review the actions taken place by the PPOs, DCOs and the contractors based on the recommendations given during the first monitoring mission of 2015 by the safeguards monitoring team;
- Reflect the facts on the progress of the implementation of the environmental and social management plans in 26 subprojects during the second monitoring mission of 2015; and
- Provide the recommendations to the PPOs, DCOs and the Contractors to maintain a good practice on environmental and social management plan.

1.3 Methodologies and Scope of Monitoring

The approaches applied for the second safeguards monitoring of 2015 are similar to methodologies used in previous missions; which include:

- Review of FS reports; particularly the chapters of environmental and social management plans for Subprojects of 26 subprojects provided by GIC. This includes the results of environmental mitigation measures performed, land acquisition and compensation measures, gender action plan implemented, ethnic monority groups and vulnerable people supported and key finding of compliance with the EMP, GAPs, EGDPs and RAPs.

- Review the first safeguards monitoring report of 2015 covered 18 subprojects of year 1 and 2;

- Discussions with GIC team: regular coordination for clarification and advice on the progress of project activities, documents and administration.
- Preparation of monitoring and assessment plan as well as the draft contents of the Safeguards monitoring report. This is to respond to the scope of works outlined in the terms of reference; including the detailed field survey plan for the mission.

- Consultation with relevant stakeholders e.g. PPOs, DCO and village authorities by interviewing and consulting with relevant officers at different levels. The consultation also includes the meeting with affected persons (APs), minority and female groups to hear and understand the facts from them through verbal approach and forms.

- Visits of the subproject sites and observation as well as meeting with site engineers of the construction contractors. All visualized items were recorded and photographed to prove the current situation of sites. All site visits were attended by the representatives from

PPOs, DCOs, PONREs and DONREs. During the site visit, the environmental and social monitoring checklists were used to record the findings.

- Field test of soil, water and plants to investigate the contamination of pesticides/chemical fertilizers in the soil, water and plants (see section 4.4).
- Awareness training on pesticide use, impacts and prevention for the communities in the beneficiary villages
- Review and assessment of implementation progress of instructions given in the previous missions.

2 Project Description

2.1 Construction Progress and subprojects for Monitoring

There are totally twenty six (26) subprojects for monitoring of Package 7-3 of 2015. As said there are 9 subprojects of year 1, 9 subprojects of year 2 and 8 subprojects of year 3 in 9 districts of 3 provinces of Bokeo, Luang Namtha and Phongsaly (see the table 2-1). All the feasibility reports including i) the EMPs; ii) the EGDPs (or IPPs); iii) the GAPs; and iv) the RPs of the eighteen (18) Subprojects above have been completed. The status of the implementation of each subproject as of the end of November 2014 is summarized Table 2-2.

Table 2-1 Monitoring schedule for subprojects

Year	2013		2014		2015		2016	
Month	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Packages of Services for Safeguard Monitoring	**7-1**		**7-2**		**7-3**			
No.of subprojects to be monitored	**9**		**18**		**18 - 26**		**26**	
Year 1 (9 subprojects)	O	O	O	O	O	O	O	O
Year 2 (9 subprojects)	-	-	O	O	O	O	O	O
Year 3 (9 subprojects)	-	-	-	-	-	O	O	O

Note: O = subprojects to be monitored.

The progress of the construction works for subprojects was reported by PPOs, DCOs and contractors in subprojects during the field mission in 2-15 January 2016. It was reported and observed that the construction works in 8 subprojects are varied in subprojects and they are expected to be completed by end of June 2016. The progress of construction works in subprojects is summarized in the Table 2-2.

Table 2-2 Subprojects' progress of construction works

No.	Province	District	Subproject Name	Year	Status for Implementation (as of the December 2015)	
					Bidding	Construction
1	Bokeo	Houayxai	Nam Tin Irrigation	1	-	100%
2			Nam Pouk Irrigation	2	-	100%
3			Nam Chae Irrigation	3	-	10.54%
4		Paktha	Houay Xo Irrigation	1	-	100%
5			Houay Sat Irrigation	2	-	100%
6			Houay Sa II Irrigation	3	-	10.28%
7		Pha Oudom	Nam Haad Right Bank Irrigation	1	-	100%
8			Nam Haad Left Bank Irrigation	2	-	100%
9			Houay Lieng Irrigation	3	-	42.15%
10		Long	Nam Ma Oune Irrigation	1	-	100%

11	Luang Namtha		Nam Bak Irrigation	2	-	100%
12			Houay MakMue Irrigation	3	-	17.48%
13		Namtha	Hong Kong Irrigation	1	-	100%
14			Nam Gnang Irrigation	2	-	100%
15			Nam Ngaene TP Irrigation	3	-	13.13%
16		Sing	Nam Dai (V) and (VII) 1Irrigation	1	-	100%
17			Nam Gna (VI) and Houay Luang Irrigation	2	-	100%
18			Nam Gna (IV) and (V) Irrigation	3	-	11.21%
19	Phongsaly	Boun Tai	Nam Lan Irrigation	1	-	100%
20			Nam Ngaene (Nawai) Irrigation	2	-	100%
21			Nam Ngaene (Namark) Irrigation	3	-	7.85%
22		Nhot Ou	Nam Ou Irrigation	1	-	100%
23			Nam Thae Irrigation	2	-	100%
24			Nam Xang Irrigation	3	-	3.99%
25		Phongsaly	Mongchao-Koamen Irrigation	1	-	100%
26			Koamen-Phonsaek Irrigation	2	-	100%

Sourced: PPOs and DCOs as of December 2015

2.2 Background of Subprojects

1). **Nam Tin Irrigation Subproject**

- **Pre-Construction Information**

Nam Tin Irrigation Subproject is located in the District of Houayxai, Bokeo Province. The scheme is approximately 15 km East of Bokeo Provincial Center as the crow flies and approximately 34 km by road. Nam Tin is an existing reservoir scheme with a total of 8.29x106 m3 of active storage capacity that was commissioned in May 2001. The scheme comprises of a 15 m-high earth dam, 560m in length and 6 m-wide crest. The existing system has two intake gates to control intake flow of water to Right Main Canal (RMC) and to Left Main Canal (LMC), respectively. The right bank command area (450 ha) is further divided into 15 secondary blocks by 15 secondary canals with a total length of 6.6km. The left bank command area (310 ha) is further divided into 8 secondary blocks by 8 secondary canals. The Subproject covers seven villages of Houayxai Noi, Xaichalern, Fai, Nam Pouk, Phonxay, Phonsavang, and Phouvane Tai with total of 1,558 households and a population of 9,084.

- **Completed Construction Works**

Main concrete lining is 1995 m, main canal (earth) 2395 m, secondary canal (concrete lining) is 4207 m, secondary canal (earth) is 8463

2). Nam Pouk Irrigation Subproject

- **Pre-Construction Information**

Nam Pouk Irrigation Subproject is located in the District of Houayxai, Bokeo Province. The proposed Subproject is approximately 15 km east of Bokeo Provincial Center, and can be reached by traveling a distance of approximately 34 km by road. The Subproject will benefit two (2) villages: i) Ban Xaychaleun; and ii) Ban Nam Pouk. The two villages are inhabited by 751 households with a population of 4,580. The scheme is currently benefiting 250 households of the two villages but there are also a few beneficiaries in the villages of Houayxai Noi and Donsavanh.

The Nam Pouk is a small stream with low discharge during the dry season. The existing headwork is a buttress type concrete weir. The head of the WUG reported that the present irrigated area during the wet season is 166.35 ha and very minimal area (4 to 5 ha) during the dry season. Existing main canals totals 1,600m, with 4,010m of secondary canals.

- **Completed Construction Works**

Main completed works are: cleaning and desilting soil from weir basin, replace control gate at intake and sluice gate (4 sets), bank slope protection of the weir basin (lining concrete) of 32 m, MC (concrete lining) of 147 m, MC1 (concrete lining) of 935 m, MC2 (concrete lining) of 475 m, SC canals 4 nos and earth canal improvement of 3,510 m.

3). Nam Chae Irrigation Subproject

The Nam Chae Irrigation Subproject is located in the District of Houayxai, Bokeo Province. The proposed subproject is approximately 15 km East of Bokeo Provincial Center, and can be reached by traveling a distance of approximately 34 km by road. The subproject will benefit two (2) villages: i) Nam Smork; and ii) Nam Pouk. The villages are inhabited by 504 households with a population of 2,490.

The Nam Chae Irrigation Scheme has 2 irrigation headworks, the Nam Smork Weir and Nam Chae Weir. Nam Smork is a bigger stream than Nam Chae. During the dry season both Nam Chae and Houay Smork are with low discharges. The 2 weirs are benefiting about 163 households, in two villages: 1) Nam Pouk Village 135 HHs; and 2) Nam Smork village 28 HHs.

4). Houay Xo Irrigation Subproject

- **Pre-Construction Information**

Houay Xo Irrigation Subproject is located in the District of Paktha, Bokeo Province. It is on the western bank of the Mekong and is only accessible by boat crossing. Direct land access is available only through the Thai border, which is about 37 km from the subproject area. From Paktha District Center, access is through a 35 km boat ride followed by a 10 km -drive along an all-weather dirt road. There are seven (7) existing wooden/stone weirs presently used along the Houay Xo river covering a total of 92 ha in three (3) villages of Ban Dong, Ban Pangsa and Ban Pakxo. Among seven (7) weirs, three (3) weirs cover 34 ha in Ban Dong, two (2) weirs cover 25 ha in Ban Pangsa, and two (2) weirs cover 33 ha in Ban Pakxo in the wet season respectively. The subproject covers three villages of Ban Dong, Ban Pangsa and Ban Pakxo with total of 258 households and a population of 1,182.

- **Completed Construction Works**

Main completed works include: concrete weir, main canal (concrete lining) of 100 m, main canal (earth) of 2,395 m Ban Pakxo,

- Concrete weir, main canal (concrete lining) of 20 m, main canal (earth) of 2,045 m at Ban Pangsa,
- Concrete weir, main canal (concrete lining) of 96 m and main canal (earth) of 2639 m at Ban Dong.

5). Houay Sat Irrigation Subproject

- **Pre-Construction Information:**

The subproject is located in the District of Paktha, Bokeo Province. The subproject will benefit Haad Don Keo village with 152 HHs. It is located on the western bank of the Mekong River. From Paktha District Center, it can be reached through a 27.5 km land drive or 35 to 40 minutes speed

boat ride along the Mekong River. Houay Sat is the stream that provides the main water source for the irrigation. The Sat discharges into the Mekong.

Houay Sat has 6 existing weirs/regulating structures across it: 1) Pakhouaykhan; 2) Fai Houanar; 3) Fai Phouvat; 4) Pakhouay ngat; 5) Napoung; and 6) Hangnar. The weirs/regulating structures are owned and managed by villagers of Haad Don Keo. All the other 5 structures are indigenous wooden cross regulating structures constructed and maintained by the water users. Existing main canals are unlined earth canals totaling 4.29 km. The village of Haad Don Keo is located on the banks of the Mekong. There is an existing track from the village to Phouvat weir totaling 5 km. The existing irrigation system irrigates some 59 ha in the wet season and 20 ha in the dry with a rainfed area of 27 ha.

- **Completed Construction Works**

Main works are:

- Phouvat weir: rehabilitation of weir- completed, MC1 (1,700 m) and structures-completed

- Napoung weir: rehabilitation of Naphong weir and MC2 (2550 m).

- Road from farm to market: rehabilitation of access road from farm to market (825 m)

6). Houay Sa II Irrigation Subproject

The proposed Subproject is located in Paktha District, Bokeo Province. The subproject will benefit Ban Haadsa. The village is located on the western bank of the Mekong River. From Paktha District Center, the village can be reached through a 25 km land drive on difficult road or 30-minute speed boat ride across the Mekong River.

There are 3 existing weirs in Houay Sa: 1) Pang Deua Weir, upstream; 2) Veco Weir, midstream; and 3) Nakang Weir, downstream. Pang Deua, a stone weir with an open intake (no gate) and earth main canal 2,300m long was constructed by the original villagers of Ban Haadsa more than 50 years ago when they moved to this location. Veco is a stone masonry concrete weir with an open intake (no gate) and a 2,200m earth main canal, constructed by an NGO (VECO) in 2008. Nakang is a stone weir with an open intake (no gate) and a 2,000m earth main canal was also constructed by the original villagers of Ban Haadsa more than 50 years ago.

7). Nam Haad Right Bank Irrigation Subproject

- **Pre-Construction Information**

The subproject is located in Phaoudom district; Bokeo province. The Subproject involves the replacement of a temporary wooden structure (weir) with a concrete reservoir wall of approximately 5 m high to retain wet season flows within a small reservoir.

The subproject will involve the relocation and construction of the main delivery canal and associated water management structures together with the construction of secondary canals in the incremental areas. The subproject beneficiaries reside in the four villages of Phonexay, Pha Oudom, Thinh Keo, and Phiengkham with approximately 1.5 km separating the most westerly village Phonexay from the most easterly, Phiengkham. The subproject will impact a total of 617 households and 3,303 persons in four villages.

- **Completed Construction Works**

Main completed works are: Nam Haad Concrete Weir, main canal (concrete lining) of 2,725 m, main canal (earth) of 2,000 m.

8). Nam Haad Left Bank Irrigation Subproject

- **Pre-Construction Information**

Nam Haad Left Bank Irrigation Subproject is located in the District of Pha Oudom, Bokeo Province. The scheme is located east of Bokeo Provincial Center, at a distance of approximately 84 km by road. Most of the villagers originated from Bokeo with a few migrants from nearby provinces.

Nam Haad Left Bank existing irrigation system was constructed with funding from the Government in 1995/96. It is approximately 1.5 km from the Nam Haad Right Bank Subproject from Year 1 of the NRI Project. The Nam Haad Left Bank is divided into two groups: i) Nam Haad Left Irrigation (Pung Xieng Group) of about 25ha; and ii) Pung Hin Group with water supply from Nam Kha Irrigation System covering a total area of about 423 ha. The Subproject beneficiaries reside in eleven (11) villages of Pha Oudom District, Bokeo Province. The subproject beneficiaries are composed of 1,389 households and a population of 7,849. The existing irrigation system irrigates some 450 ha in the wet season and 100 ha in the dry.

- **Completed Construction Works**

Main completed works are: Nam Haad (weir) downstream projection, LMC(1,821 m) (concrete lining 950 m and earth 900 m), canal structures of 13 nos, Nam Kha (weir) control intake and sluice gate, MC(3375 m), SC (350 m), canal structures of 48 nos.

9). Houay Lieng Irrigation Subproject

Houay Lieng Irrigation Subproject is located in Pha Oudom District, Bokeo Province. The scheme is situated east of the Bokeo Provincial Center, travelling a distance of approximately 84 km by road. Most of the villagers originated from Bokeo with a few migrants from nearby provinces. The subproject beneficiaries are residents of 8 villages in Pha Oudom District, Bokeo Province.

The existing Houay Lieng Irrigation System was constructed by the Government. The scheme is divided into two sub-systems: 1) Houay Lieng 1 Irrigation (Weir No. 1 upstream) total area coverage of about 213 ha (RMC 155 Ha and LMC 58 ha); and 2) Houay Lieng 2 (Weir No. 2 at downstream of Houay Lieng River) covering a total area of about 57 ha.

Houay Lieng Weir 1 was constructed in 2001 with 2 intakes and 2 earth main canals, LMC 2.65 km long and RMC 0.95 km long. The LMC supplies irrigation water to an area of about 155 has, and RMC supplies water to an area about 58 has. The intake gates are stuck and can't be lifted due to sediment accumulation and these have serious leaks. Houay Lieng Weir 2 was constructed in 2008 with an open intake (no gate) and a 2,650m long main canal at the right side irrigating about 57 has.

10). Nam Ma OuneIrrigation Subproject

- **Pre-Construction Information**

This subproject is located in the District of Long, Luang Namtha Province. The scheme is approximately 42 km as the crow flies at an approximate bearing of 285 degrees to the northwest of Luang Namtha Provincial capital. By road the scheme is 77 km from the provincial capital and 24 km from the district capital of Long. Nam Ma Ouneis an existing weir irrigation system with an existing reinforced concrete weir of 24 m crest length and 2.3 m in height which was commissioned in 2003. It is located on the Ma OuneRiver at the confluence with Ma Yen River. Existing main canal length is 2, 000 m. Existing command area is 105 ha in the wet season. The dimension of the existing earth main canal is 0.70 m of the bottom width, 1.30 m of the top width and 1.2 m of the height. The main canal appears to be in good condition. According the beneficiary farmers, maintenance of the canals is carried out twice per year through cleaning and clearance

of vegetation. The subproject covers the village of Ban Thad with 67 households and a population of 315 people.

- **Completed Construction Works**

Main completed works are: repairing intake gates (2 nos), main canal (concrete lining) of 1,286 m, main canal (earth) of 2,646 m and left main canal (earth) 300 m.

11). Nam Bak Irrigation Subproject

- **Pre-Construction Information**

The Nambak Irrigation Subproject is located in Long District, Luang Namtha Province. The scheme is approximately 24 km from Long District and about 76 km from Luang Namtha Provincial Capital by road. The subproject benefits the 4 villages of Phayaluang, Khok Hin, Nambak, Phokham and Silimoun. The villages have a total of 411 households and population of 2,102.

The Nam Bak Scheme is a sort of integrated scheme with six weirs diverting water from the Nam Bak Noi, Nam Bak Nyai and Nam Ma Rivers. The weirs support the irrigation water supply for a compact/homogenous command area of 217 hectares. The scheme diverts water from three rivers, Nam Bak Noi, Nam Bak Nyai and Nam Ma through a series of six weirs (referred to as Weirs 1, 2, 3, 4, 5 and 6), two of which are concrete (weirs 2 & 3) and the other 4 are indigenous weirs made of bamboo, wood and stones. Concrete weirs were constructed for weirs 1, 2 and 3 by funds from the EU and ACF (NGO) in 2005 with labor and local materials participation from the villages. The existing scheme irrigates a wet season command area of 217 ha.

- **Completed Construction Works**

Main completed works are:
- Head work1, MC1 lining of 950 m and structures of 13 nos.
- Head work 2, MC2 lining of 706 m, earth canal of 400 m and structures of 10 nos
- Head work 3, MC3 lining of 425 m, structures of 14 nos.
- Head work 4, MC4 of 1000 m (600 m lining and earth 400 m).
- Head work 5 (intake structure only), MC lining of 230 m.
- Head work 6, MC6 lining of 400 m, 4SC (SC1, SC2, SC3, SC4)(earth canal), structures of 9 nos.

12). Houay MakMue Irrigation Subproject

The Houay Makmue Irrigation Subproject is located in Long District, Luang Namtha Province. The scheme is located approximately 15 - 20 km from Long District and about 85 - 90 km from Luang Namtha Provincial Capital through Road No. 17b. The subproject will benefit 5 villages namely: Sivilay; Denkang; Jakhamtanh; Houay Mor; and Jakhamping. The villages have a total of 377 households and population of 2,117.

Based on initial pre-engineering investigation, Houay Makmue Subproject will involve construction/improvement of 8 weirs and main canals: 1) Houay Kod 1; 2) Houay Kod 2; 3) Nam Ma; 4) Houay Luang 1; 5) Houay Luang 2; 6) Houay Fai weir; 7) Houay Makmue 1; and 8) Houay Makmue 2. The present irrigated area of the 8 weirs during the wet season is 150.47 hectares. Weirs Nam Ma and Houay Kod 1 are concrete weirs while the others are non-permanent stone/wooden weirs. These constructed by farmers with basically no water control and regulation structures. The main canal of Houay Kod 1 is 0.8 km, Houay Kod 2 is 3.25 km, Nam Ma is 0.88 km, Houay Luang1 is 0.57 km, Houay Luang2 is 1.26 km, Houay Fai is 0.37 Km, Houay Makmue1 is 0.47 km and Houay Makmue2 is 0.18 km.

13). Hong Kong Irrigation Subproject

- **Pre-Construction Information**

Hong Kong Subproject is located in the District of Luang Namtha, Luang Namtha Province. The scheme is approximately 4 km at an approximate heading of 314 degrees northwest of Luang Namtha Provincial capital by road (Figure 2-1). Hong Kong is an existing scheme that diverts water from the Nam Ngaene river to Hong Kong channel with four existing weirs on Hong Kong channel; The subproject covers three villages of B. Nam Gnaene, B. Khone, and B. Luang with total of 936 households and a population of 5,196. Hong Kong is an irrigation canal covering a total of 155 ha.

- **Completed Construction Works**

Main completed works are:
- Hongkong flume canal improvement: installation of control gate (2 sets), extension of concrete.
- Kang Ban weir: construction of new concrete weir with stoplog.
- Khampom weir: repair of intake structure, etc with stoplog.
- Houay Louang weir: repair of intake structure, etc with stoplog.
- Janor weir: repair of intake structure, etc with stoplog.
- Nam Ngaene river bank protection (stone masonry) of 120 m

14). Nam Gnang Irrigation Subproject

- **Pre-Construction Information**

The Nam Gnang Irrigation Subproject is located in the District of Namtha, Luang Namtha Province. The scheme is about 4 km at Northwest of Luang Namtha Provincial Capital by road. The subproject covers the (8) villages of Nam Ngaene, Khone, Luang , HuaKua, Thong Ome, Vieng Neua, Vieng Tai and Nam Chang with about 1,900 HHs and a population of 10,189.

Nam Gnang is an existing scheme that diverts water from the Nam Gnang River with supplemental water coming from a Diversion Canal at the left side of the upstream Nam Ngaen Weir. It has a wet season command area about 350 ha and about 450 beneficiary HHs.

The Nam Gnang Weir is a buttress type concrete weir with a crest length of 45m and 2m in height. The weir basin is seriously silted, limiting the flow of water to the intake at the left side of the weir. The main canal is also silted with eroded sides and irregular in shape and depth.

- **Completed Construction Works**

Main completed works are: head work of Nam Ngaene, MC of 1,190 m, LMC 2,250 m.

15). Nam Gnaene Thongpaene Irrigation Subproject

The proposed Nam Ngaene Thongpaene Irrigation Subproject is located in the District of Namtha, Luang Namtha Province. The scheme is about 4km southwest of Luang Namtha Provincial Capital by road. Nam Ngaene Thongpaene is an existing scheme that diverts water from the Nam Ngaene River to irrigate the right side of irrigation area of Nam Ngaene. The existing Nam Ngaene Thongpaene Weir is a stone masonry weir (W = 48.00m, H = 1.70m) with an open intake (no gate) at the right bank and two (2) stop log type sluice gates, originally constructed by the government in 1992, then repaired by EU in 1995. The main canal (MC) of the scheme is an earth canal with a length of about 2,600 meters (m). There are 6 earth secondary canals (SC1 about 700m; SC2 about 1,000m; SC3 about 1,600m; SC4 about 1,100m; SC5 about 1,300m; and SC6 about 1,000m). There are no turnout gates along the SCs and no farm ditches from these canals to distribute irrigation water to farms.

16). Nam Dai Irrigation Subproject

- **Pre-Construction Information**

This subproject is Located in Sing district, Luang Namtha province. It is comprised of three discrete investments that involve two irrigation rehabilitations and the upgrading of one rural access road. The two irrigation schemes - Nam Dai V and VI are existing schemes that currently provide wet season irrigation (finishing water) to128 ha. With the rehabilitation, an additional 29 ha can be irrigated. The investment involves the replacement of two existing temporary weirs with permanent concrete structures together with associated delivery canals. In addition, the Subproject will rehabilitate 2.8 km of gravel-surfaced access road to facilitate delivery of production inputs. This Subproject will benefit to 3 villages as: Namkeo Luang, Siri Huang and Yang Phieng with total 311 households and population of 1,496 people.

- **Completed Construction Works**

Main completed works are:
- Nam Dai (V) concrete weir, main canal (concrete lining) of 1,810 m) and main canal (earth work) of 305 m.
- Nam Dai(IV) concrete weir, main canal (concrete lining) of 1,525 m and main canal (earth) 0 m.

17). Nam Gna VI-HouayLuang Irrigation Subproject

- **Pre-Construction Information**

The Nam Gna VI - Houay Luang Irrigation Subproject is located in the District of Sing, Luang Namtha Province. The scheme is approximately 4 km from Sing district center and 64 Km from Luang Namtha provincial center and 12 Km to Lao-China border Checkpoint.

The subproject covers the seven (7) villages of Chome, Houay Luang, Xiengmoun, Namai, Huakhua, Xieng-Inn and Xieng-Yeun. There are 750 HHs and about 846 families in the 7 villages. Total population is 3,892 people comprising of 1,934 females and 1,958 male.

The existing Nam Gna 6 Irrigation Scheme consists of a concrete weir with a 12 m crest length. The weir basin is seriously silted limiting the flow of water to the intake at the left side of the weir. The main canal is silted, eroded and irregular in shape and depth, and there are no water control and regulation structures. This scheme has a command area of about 224 hectares.

Houay Luang is an earth dam of 8 m height and an 18 m spillway. The reported design storage capacity is about 220,000 m^3, but the reservoir is presently seriously silted and may not have the same capacity. There is no data given on the dead storage of the Dam. Nam Yaluang is reported to have a command area of 182 hectares.

- **Completed Construction Works**

Main completed works are:
- Nam Gna VI: head work, MC (lining of 443 m)-12% completed, RCM (1,600 m)-completed (lining of 1,000 m and earth of 600 m)-completed, LMC (1,140 m)-completed, RSC (1,150 m)-not yet started.
- Houay Luang: Head work-completed, MC (225 m)-completed, LMC (1,600 m) (concrete lining of 1,000 m and earth=725 m)-completed and RSC (577 m) completed concreted lining of 750 m of RSC.

18). Nam Gna IV and V Irrigation Subproject

The Nam Gna (IV) & (V) Irrigation Subproject is located in Sing District, Luang Namtha Province. The scheme is approximately 2 km from Sing district center, 64 Km from Luang Namtha provincial center and 12 Km to the Lao-China Border Checkpoint.

The subproject covers the two (2) villages of Nongkham and Nakham. There are 261 HHs living in the 2 villages. Total population is 1,187 people comprised of 602 females and 585 males. The HHs living in the villages are dominated by Lao-Tai Ethno-Linguistic Group at 258 Households (Leu Ethnic) with only 3 HHs belonging to the Mone-Khmer Ethno-Linguistic Group.

The existing Nam Gna (IV) Irrigation Scheme is a Buttress type concrete weir (W=20 m, H = 1.2 M, and L = 6 m), constructed by the government in CY2006-2007. During flood occurrence, flood waters overflow at the river bank and erode the soil at that location. Heavy siltation had formed an island with dimension of 25m x 50m x 1.5m at the reservoir basin. Nam Gna (IV) has an earth main canal with a total length about 0.84 km and 3 secondary canals: a) SC1 at 0.35km; b) SC2 at 1.50km; and c) SC3 at 1.35km. There are no water control and regulation structures constructed.

Nam Gna (V) is a traditional weir constructed of wood, bamboo and sand bags, approximately 30m wide and 1.50m high. The main canal is 1.36 km with no water control and regulations structures.

19). Nam Lan Irrigation Subproject

- **Pre-Construction Information**

This subproject is located in the district of Bountai, Phongsaly Province. The scheme is approximately 37 km as the crow flies at an approximate bearing of 199 degrees to the south - west of Phongsaly's current provincial capital. By road the scheme is 92 km from the provincial capital and 4.5 km from the district capital of Bountai. It is 48 km away from the China border. The existing Nam Lan scheme is a weir irrigation system with a total command area of 34 ha covered by a main canal of 2,750 m long. The concrete weir is 1.8 m in height, with a crest length of 43 m. The weir was first commissioned in 2008. Thus, Nam Lan irrigation system will have a total command area of 82 ha, some main canal sections have already been excavated by the farmers. The subproject covers only one village of B. Nawai with 165 households and a population of 822.

- **Completed Construction Works:**

Main completed works are: repairing of intake gages of 2 nos, main canal (concrete lining) of 1,266 m, main canal (earth) of 2,649 m and left main canal (earth) of 300 m.

20). Nam Ngene Irrigation Subproject

- **Pre-Construction Information**

Nam Ngene Irrigation subproject is located in the district of Bountai, Phongsaly province. The scheme is approximately 37 km as the crow flies at an approximate bearing of 199 degrees, south-west of Phongsaly's Provincial Capital.

The proposed subproject will benefit the 4 villages of Bountai, Nonbounkang, Phothong and Nawai. (Ban Nawai is a beneficiary of Nam Lan Irrigation System – Year 1 NRI subproject).

The existing Nam Ngene scheme consists of a concrete weir and two (2) main canals: 1) 3.62 km RMC; and 2) 2.25 LMC. The concrete weir was constructed out of Lao government (GOL) funds in 2008, although the canal system is reported to have been in use for several decades with indigenous/temporary weirs (before the construction of the concrete weir by the government). The present irrigation service area of the system is reported at 117 ha, benefiting about 213 HHs.

- **Completed Construction Works**

Main works are: head work, LMC (1720 m)-860m, earth canal of 860 m, RMC canal lining of 1700m, RSC1 and RSC.

21). Nam Ngene (Namark) Irrigation Subproject

Nam Ngene (Ban Namark) and Nam Hin Irrigation Subproject is located in the District of Bountai, Phongsaly Province. It will cover two small adjacent schemes – Namark Weir and Nam Hin Weir. It covers 4 villages in Bountai District - Namark, Namkhun May, Aneng and Muchi.

The Namark Weir located in Namark village was a stone masonry weir constructed by EU in 2002, then improved into a concrete weir by the government (GOL) in 2005, with a width of 27.00m and height of 1.70m. There is one (1) intake at the right bank, one (1) main canal (MC) and two (2) sluice gates.

The Nam Hin Weir located in Aneng village, is a concrete weir, constructed by the EU in 2002. The Weir is 0.70m high and 18.00m long with one (1) stop log type intake gate and three (3) stop log type sluice gates. The earth main canal is about 3,550m long, some portions of which are damaged/and covered with earth due to land slide. The scheme does not have secondary canals, turn out and farm ditches.

22). Nam Ou Irrigation Subproject

- **Pre-Construction Information**

This subproject is an existing weir type scheme with an existing reinforced concrete weir with 48 m crest length and 3 m in height. It was commissioned in 2000 and is currently in good condition. The system has one intake gate at the left bank followed by MC with 1,715 m long, is then further divided in to two (2) main canals, RMC with 2,603 m long and LMC with 3,622 m long. The total command area is 440 ha consisting of 117 ha of the right bank command area and 263 ha of the left bank command area. The subproject covers six villages of B. Loum, B. Kad, B. Tai, B. Theung, B. Phouxangand B. Somxay in Nhot-Ou district in Phongsaly province, with a total of 844 households and a population of 4,314 people.

- **Completed Construction Works**

Main completed works are: repairing intake gates of 2 nos, main canal (concrete lining) of 1,286 m, LMC main canal (earth) of 4,200 m, RMC main canal of 2,641 m, dredging of existing concrete canal of 1,150 m and repair of secondary canal (earth) of 3,677 m.

23). Nam Thae Irrigation Subproject

- **Pre-Construction Information**

Nam Thae irrigation Subproject is located in the Nhot Ou District, at a distance of about 21 Km north east of the District, and 177 km from Phongsaly Provincial Capital through an all-weather laterite and asphalt road passable by all types of vehicles.

The subproject will benefit 5 villages in the area namely: 1) Ban Don Ngeng; 2) Ban Sen Inmay; 3) Ban Navone; 4) Ban Nong Ngai; and 5) Ban Bortai. The five (5) villages comprise of 416 Households, 545 families and a population of 2,211.

The subproject is a scheme with an existing reinforced concrete weir 40 m in length and 3 m in height funded by the government. Existing main canal length is approximately 6,400 m. Presently, the storage basin of the weir is filled with sand, the sluice gate is broken and cannot be operated, portions of the main canal are seriously silted and with leakages, and damaged turnouts.

- **Completed Construction Works**

Completed works are: head work, LMC (1720 m)-canal lining 860 m and earth canal, RMC canal lining of 1,700 m, RSC1 and RSC2.

24). Nam Xang Irrigation Subproject

The Nam Xang irrigation subproject is located in the Nhot Ou District (Figure 2), at a distance of about 22 Km North East of Nhot Ou District Center and 177 km from Phongsaly Provincial Capital through an all-weather laterite and asphalt road passable by all types of vehicles.

The Subproject will benefit 4 villages, Xiengkhone, Don Ngeng, Navone and Nong Ngai. Don Ngeng, Navone and Nong Ngai are also beneficiary villages of Nam Thae, a Year 2 NRI Subproject. There are 374 HHs in the four (4) villages. The total population is 1,974 people, mostly of the Lao-Tai Ethno-Linguistic Group with 15 HHs and 88 people of the Tibeto-Chinese Linguistic Group.

The Nam Xang irrigation subproject is a scheme with an existing reinforced concrete weir 21.00 m long and 1.30m high, constructed by the government. The existing irrigation scheme has an approximately 960m Main Canal (MC) which branches into a Left Main Canal (LMC) with a length of 3,500m and a 1,060m Right Main Canal (RMC).

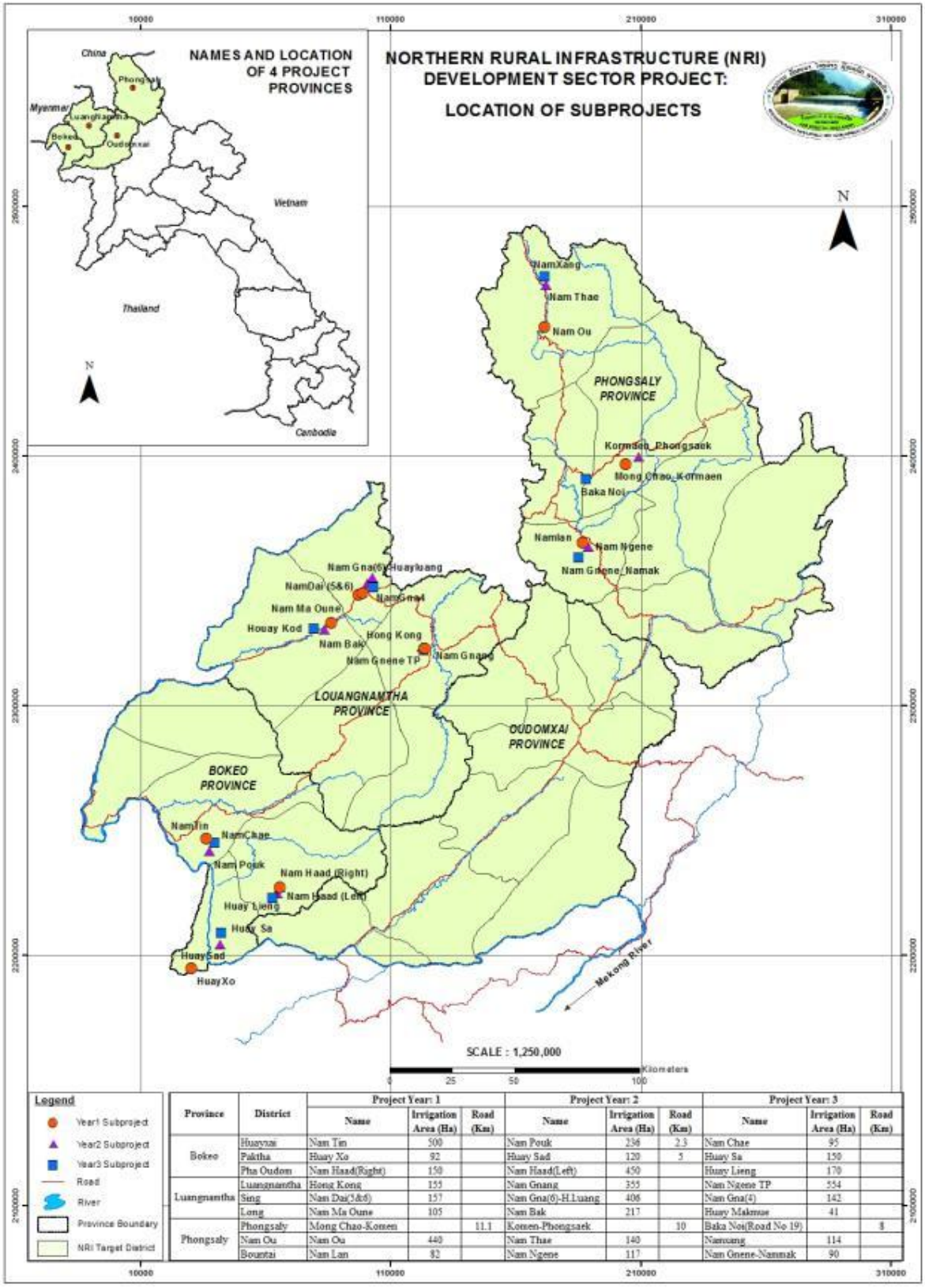
25). Mong Chao-Koman Road Subproject

This subproject is located in Phongsaly district. The aim of the Subproject is to rehabilitate approximately 13.5 km long road; which comprises of a combination of gravel and sealed surfaces. The gravel-surfaced road (7.8 km in length) will be 4.5 m in width (including two, 0.5 m shoulders) with surface and longitudinal drainage structures as required. The sealed surface (5.7 km in length) will be undertaken where the alignment passes through villages and in sections with steeper gradients as well as in areas with identified problems. It will have a 3.5 m wide double bitumen surface treatment (DBST) to minimize the maintenance requirements and maintain functionality of the alignment given the more extreme climatic conditions experienced in the north. The road continues on to Phongsaek en route through Phagnasy. This latter section is not part of the Subproject. The project will serve with improved road for 8 villages with 488 households and 2,174 residents. Six of these villages are located alongside the road with the remaining two, Namleng and Kodaeng, relying on access tracks to the road of approximately 3 km distance.

26). Kormaen-Phongsaek Road Subproject

The proposed subproject, Kormaen-Phongsaek Road, is a continuation of the Year 1 Mongchao-Kormaen Road Rehabilitation Subproject. The start of the proposed subproject road is located at Kormaen village, which is some 14 km by road from Phongsaly district/provincial capital, where the first section of the year 1 subproject road ends. The Kormaen-Phongsaek subproject road continues for a further 10.3 km and terminates at Phongsaek village school which lies in a northeasterly direction from the starting point.

The road services two villages of Phayasy (Km 4+900) and Phongsaek (Km 9+700) of 133 households, 148 families and population of 645.



Province	District	Project Year: 1			Project Year: 2			Project Year: 3		
		Name	Irrigation Area (Ha)	Road (Km)	Name	Irrigation Area (Ha)	Road (Km)	Name	Irrigation Area (Ha)	Road (Km)
Bokeo	Huayxai	Nam Tin	500		Nam Pouk	236	2.3	Nam Chae	95	
	Paktha	Huay Xo	92		Huay Sad	120	5	Huay Sa	150	
	Pha Oudom	Nam Haad(Right)	150		Nam Haad(Left)	450		Huay Lieng	170	
Luangnamtha	Luangnamtha	Hong Kong	155		Nan Gnang	355		Nam Ngene TP	554	
	Sing	Nam Dai(5&6)	157		Nam Gna(6)-H.Luang	406		Nam Gna(4)	142	
	Long	Nam Ma Oune	105		Nam Bak	217		Huay Makmae	41	
Phongsaly	Phongsaly	Mong Chao-Komen		11.1	Komen-Phongsaek		10	Baka Noi(Road No 19)		8
	Nam Ou	Nam Ou	440		Nam Thae	140		Namxang	114	
	Boumtai	Nam Lan	82		Nam Ngene	117		Nam Gnene-Nammak	90	

Figure 2-1 Map of the project location and Subproject sites of year 1, 2 and 3

3 Project Organization for Environmental and Social Safeguards and Responsibilities

3.1 Institutional Arrangement of Project

To ensure inter-agency cooperation at the national level, a National Steering Committee (NSC) has been established. The NSC will meet annually or as required to review overall implementation progress, approve annual work- plans and budgets, and provide overall policy guidance. The National Project Management Office (NPMO) provides secretariat services to NSC. Provincial Steering Committees (PSCs) have been established to ensure inter-agency coordination at provincial level. The PSCs are chaired by provincial vice governors with equivalent representation to that for the NSC, including governors from the participating districts. The PSCs meet bi-annually or as required to review implementation progress and to ensure adequate levels of coordination between key agencies for project coordination. Subproject Investment Reports (SIRs) shall be approved by PSCs after obtaining the necessary concurrence of ADB for social and environmental safeguards. The PPO will provide secretariat services to PSCs.

The Ministry of Agriculture and Forestry (MAF) is the executing agency (EA) for the Project with the responsibility for overall project coordination and management transferred to its Department of Planning and Cooperation (DOPC) who has established the NPMO for day-to-day coordination and management of the Project. The implementing agencies at the provincial level are the Provincial Agriculture and Forestry Offices (PAFOs). Provincial Project Offices (PPOs) have been established in each PAFO to be responsible for financial management at provincial level, and coordination and management of implementation of Subprojects. To assist the implementation of the Project at the district level, District Coordination Offices (DCOs) have been established within District Agriculture and Forestry Offices (DAFOs) to mainly coordinate and supervise Subproject activities.

3.2 Organizational Structure for the Environmental and Social Safeguards

Besides the Steering Committees at provincial and district levels established in 2010, the Committees with different roles for grievance have been formed at levels (provincial, district and village/community) during 2011-2012 for all Subprojects. The key roles of the committees are to coordinate and mitigate the negative impacts on environment, land acquisition and compensation, socio-economic, culture and livelihood of the communities; which would be caused by Subproject activities. This is to ensure the compliance with ADB policy and relevant Lao PDR's regulations regarding the environmental and social safeguards.

The structure of the committees is varied in terms of number and representative sectors in each province. However, members of committee are representatives from line departments and district offices responsible for environmental and social safeguards e.g. department/ office of natural resources and environment at provinces and districts, Lao Women Union (LWU), Lao Front for National Construction (LFNC) and district cabinet offices and others. A project Environmental Management Office (EMO) or its equivalent within the PPO with the assistance of the DCO have been established in coordination with line offices; in particularly with environmental sector. This is to ensure long-term institutional capacity building. It is recommended that the staff of the EMO be drawn from the permanent full-time staff of the executing agency.

Similarly, the committees and DCO at district level have also been established; particularly the grievance committee that has the roles to coordinate with provincial committee advise the village

committees and supervise the implementation of safeguards plans and support community development activities.

At village/community level, the grievance committees have been set up by district governor to ensure that all the concerned matters regarding the complaint on land acquisition and resettlement, engagement of the ethnic minority groups are basically resolved at village level.

Committees of WUGs have been set up in each subproject to maintain operational mechanism. The operation system will be managed by the beneficiaries and funded by beneficiaries' contribution through water user fees collected. This is consistent with Lao PDR Irrigation Management and Transfer Strategies recently developed. This is to ensure the sustainable use of the provided structures in the sustainable way. The committees at the village/community level comprises of the representatives from village office, village security, village defence, Lao Youth, LWU and LFNC.

3.3 Role and Responsibility of Environmental and Social Management Team

The PPO and DCO as well as EMO are designated to play important roles for environmental and social management and monitoring for the executive agency. The role of these offices is ensure that environmental and social impacts are appropriately prevented and mitigated in conformity with the approved EMP, GAPs, EGDPs and RAPs. These offices also have the role to ensure that good engineering practices are exercised for the environment and social protection. Main responsibilities of EMO established within the PPO are to ensure the mitigation measure and monitoring programs are carried out regularly, to identify problems and develop plans for corrective actions. Routine reporting will be maintained by the DCO and PPO for the NPMO, MAF and ADB as part of its routine reporting responsibilities in compliance with the ADB requirements.

A safeguards officer of the EMO established within the PPO shall be responsible for safeguards monitoring (including grievance mechanisms) to ensure that the following required policies, procedures and plans are addressed:

- Resettlement (including land acquisition and compensation);
- EMP and environmental monitoring implementation, supervise the Contractor to implement the EMP Compliance with the Contractual Specifications;
- The implementation of Indigenous peoples specific actions and the achievement of their expected outcomes during Subproject preparation, implementation and operation; and
- The closer follow up of gender action plan.

With their responsibilities, PONREs and DONREs have been actively encouraged to involve in the safeguards monitoring and evaluation. They have also carried out their own monitoring in some subprojects with support from the PPO and DCO in quarterly or bi-annual basis. Such implementation is also part of the mandates of PONRE and DONRE. The encouragement of NRI Project for the PONRE and DONRE has strengthened the capacity of MONRE through different ways. This includes engagement of PONRE and DONRE staff during the safeguards monitoring missions of year 1 and 2 and their involvement in the IEE process for subprojects.

4 Results of Environmental Safeguards Monitoring

4.1 Environmental Permits/Clearance and Progress of Environmental Safeguards

It is obligatory requirement that all development projects in Lao PDR are subject to environmental assessment and management planning according to the Decree on Environmental Impact Assessment, April 2010. The Decree describes investment projects into two categories; Category 1 - for small scale projects that require an IEE, and category 2 - for large scale investments requiring an environmental impact assessment (EIA). For irrigation projects, those with a command area of between100 - 2,000 ha come under category 1, while those with a command area greater than 2,000 ha come under Category 2. The corresponding category in the ADB's classification system is B, which requires an IEE.

Second safeguards monitoring mission of 2015 was undertaken during 2-15 January 2016. The scope of inspection covered water quality, waste management, hazardous waste management, erosion and sediment control and dust & noise. The details of monitoring outcomes for the environmental compliance and status of each subproject during the site visit can be summarized in the section 4.2.

With above-mentioned requirements, the IEE for 18 subprojects of year 1 and 2 were approved. For the subprojects of year 3, the IEE reports were submitted to PONREs and 3 out of 8 subprojects were also approved and certified. Pending IEE certificates are 3 subprojects in Bokeo (Nam Chae, Houay Lieng and Nam SaII subprojects) and other 2 subprojects in Phongsaly (Nam Ngene Namark and Nam Xang subprojects). During the monitoring, the discussion with PPOs and PONREs of 2 provinces taken pace regarding the IEE certificates issuance. It was confirmed by PPOs and PONREs to proceed soon.

4.2 Environmental Compliance and Key findings

The main environmental impacts were foreseen at stages of all subprojects implementation, particularly during the construction period and the mitigation measures were proposed in the IEE and EMP for the subprojects. The main environmental concerns for subprojects and taken into account for the monitoring are: general waste management, soil erosion and sediment control, hazardous material and waste management, terrestrial and aquatic resources protection, dust and noise nuisance management and water quality.

In addition to the fundamental water quality parameters, the study of pesticides and chemical fertilizers for water, soil and plants was also covered in this mission.

As said above, construction of 18 subprojects of year 1 and 2 were already completed and they are now on operation. There are no anticipated environmental impacts from operation of these subprojects. Therefore, during the second monitoring of 2015 the full inspections took place at 8 subprojects where the constructions works are being undertaken and potential environmental impacts would be in place.

Key findings of environmental outstanding issues observed during the mission in 26 subprojects are summarized as following:

4.2.1 Soil erosion, silt and sediment deposition

As said the 18 subprojects are in operation and no erosion and/or sediment deposit caused by implementation of these subprojects. The siltation and sediment deposition was found in the basin of the reservoirs eroded from upstream area during last wet season.

It was noted that some earth works were taken place on sites of 8 subprojects of year 3 subprojects for rehabilitation of the canals, desilting from the reservoir and diversion works for improving and constructing the weirs. Some of these activities would potentially cause sediment transport; particularly the desilting and diversion works. However, the impact seems to be less due to the construction works to undertaken during the dry season. Therefore, the soil erosion and silt deposition would be minor. The subprojects that would potentially subject to erosion and sediment transport during the wet season are Nam Xang, Houay Sa II, Houay MakMue and Nam Gna IV and V. Nevertheless potential impact would be lessened if the construction and/or rehabilitation works and stabilization were completed as plan; before wet season.

Recommendation was given to the PPOs and DCOs concerning the stabilization and site rehabilitation of the sites upon the completion of the rehabilitation and construction works.

		
Rehabilitation works at Nam Xang Irrigation subprojects; 13 Jan 2016	Construction of Houay Sa II Weir structure; 5 Jan 2016	Rehabilitation of Nam Gna IV and V subproject; 9 Jan 2016

Figure 4-1 Photos of sensitive areas of erosion and sediment transport

With the natural hazard occurred at the Nam Bak Irrigation subproject of year 2 last year, the scheme was damaged and a lot of deposition of sediment. The scheme is not now in operational condition. It is reported that the Project has plan to rehabilitate the site.

4.2.2 Hazardous/chemical waste and material

It was observed and reported that the diesel and other hazardous materials are delivered to the construction sites of subprojects day to day or whenever required as most of the sites are close to the supplying source. However, 3 drums of diesel were placed at the temporary construction camps at Nam Xang subproject because the construction site is quite far from the supplying source. However, no leakage or spillage of hazardous material and waste was found on the ground at the construction sites and/or camp areas. In general the issues associated with hazardous material and waste seems to be minor issues and less potential to cause impact to surrounding environment due to the good control of chemicals/hazardous materials taken by the Contractors.

4.2.3 Dust and noise nuisance

The dust and noise nuisance was monitored through visualizing and interview with the local villagers close to the construction sites. Based on the consultations and discussion with the villagers, it is confirmed that they have no concerns on dust and noise issues potentially caused by the rehabilitation/construction activities and transportations for subprojects. It was noted that there were only few trucks and heavy machine working on sites; those heavy machines were mainly based on sites. It is also found that most of the construction sites are located quite far from residential areas.

4.2.4 Waste management

Waste management for most the construction sites and workers' camps were quite well managed; comparing to previous missions. It was observed that the waste was cleaned and kept in the pits on site. This would be due to the better understanding of the contractors on environmental obligation and compliance. However, improved waste management on sites at Houay MakMue subproject is required; particularly the construction waste.

4.2.5 Disturbance of water flows

Most of the disturbance of water flow is caused by temporary diversion of streams for the rehabilitation and/or construction of weir structures of subprojects. The streams were diverted at Nam Gna (IV) and V, Houay MakMue, Nam Chae and Houay Sa II. Such impact of diversion would not cause significant impact to the downstream aquatic resources and local villagers because the diversions take place in short distance and re-diverting into the stream upon the completion of construction works. Inevitably, the temporary impact on water quality of stream during the period of diversion works.

It was found that there were no other construction activities that would cause negative impacts on water flow of streams in the subprojects areas.

4.2.6 Use of private land for storage and work depots

It was noted that the private land; mostly rice paddy, are utilized for temporary workers' camps, storage and work depots in some subprojects (Nam Chae, Nam Xang, Nam Gnaene TP, Nam Gna IV&V and Houay Lieng). While in other subprojects are common/village land (Nam Ngene Namark, Houay Sa II and Houay MakMue).

In addition, some private and common land parcels were used for temporary aggregate stock piles or spoils in most of subprojects. It was confirmed by the village authorities and DCOs that such uses of plots of land are agreed and approved by the land owners and/or village authorities. The Contractors also agreed to rehabilitate the sites upon the completion of the rehabilitation/ construction works of subprojects (before cultivation season).

With this concern, The PPOs, DCO, village authorities and the Contractors were recommended to have good rehabilitation and cleaning of the sites to avoid consequent complaints from local villagers and impacts.

		
Temporary storage and depot at Nam Ngaene TP subproject; 8 Jan 2016	Construction of Nam Xang subproject; 13 Jan 2016	Temporary structures on agriculture land of private land at Nam Xang subproject; 13 Jan 2016

Figure 4-2 Photos of temporary structures in private land in subprojects

4.2.7 Aquatic and Terrestrial Biology

As reported, the baseline data of aquatic resources study was conducted during the first mission of 2014 for 18 subprojects of year 1 and 2. It is assumed that no additional potential impacts during the operation of the subprojects; excepting the obstruction of fish passage in some subprojects. For 8 subprojects of year 3, the base line data of the aquatic resources will be collected during the first mission of year 2016. It was noted that some subprojects of year 3 will be combined the rehabilitation and/or construction of existing weirs and new weirs (Houay Sa II, Nam Chae, Nam Gna V and Houay MakMue). With the construction of the new structures would slightly affect the fish migration. However, it is reported by the villagers that the fish diversity and population in the streams of subprojects are less and decreased for a decade. Reportedly, the fish migration would more possible during the wet season with high flow than during the dry season with low flow with limitation for fish migration. No fishing activities by the workers in the subprojects were reported or observed during the site visit; excepting the fishing net found at Houay MakMue construction site.

Fish conservation has been practiced in some subproject areas; including Nam Tin, Houay Xo, Nam Ma Oun, Houay Luang, Nam Ou and Nam Lan. It is recommended that the fish conservation zone would be also introduced and promoted for subprojects where possible e.g. Nam Xang, Nam Ngene and Nam Gna due to the potential of water availability at upstream, year-round water flow and surrounding environment.

Concerning the terrestrial resources, most of the rehabilitation and construction works of 8 subprojects are mainly taken place in the agricultural land areas. It was found that the abundance of the forest resources; including wild animals in the vicinity of subprojects have been disturbed and decreased. However, some forest resources is still available in the vicinity of subprojects of Nam Xang, Houay MakMue and Houay Sa II and evidence of hunting equipment and hunted wild animals were observed at the camps of Nam Xang and Houay MakMue subprojects. These include bird trapping nets, traps, dried wild animals. With this concern, the advice was given to the site engineers of subprojects and DCOs and PPOs to compliance with the EMP requirements.

		
Hunted wild animal found at the camp of Nam Xang subproject; 13 Jan 2016	Bird trapping net found at construction sites of Houay MakMue subproject; 10 Jan 2016	Fishing net found at Houay MakMue subproject; 10 Jan 2016

Figure 4-3 Photos of hunted wild animals and equipment for hunting in subprojects

4.2.8 Health and Safety

During the site visits at subprojects of year 3, the discussions on health and safety issues of the workers on site and local villages were undertaken through the discussion with villagers and interview with site engineer. It was confirmed by the site engineers of subprojects that the first aids/medicine boxes are available on sites. It was also reported that so far no serious injury or

health issues have been happened. Report by the villagers also confirmed that they do not have any concerns of health and safety from subprojects.

4.3 Water Quality Monitirong

4.4.1. Fundamental Parameters

The baseline data for water quality of 8 subprojects of year 3 was collected at upstream and downstream of the subprojects. The coordinate points of sampling sites are identified in the Table 4-1. In addition to these subprojects, the water quality monitoring of 18 subprojects of year 1 and 2 was also conducted. As said, no sampling for Mongchao-Komaen and Komaen-Phongsaek for all missions.

There are 8 parameters for water quality monitoring as proposed in the EMP as indicated in the EMP. Few parameters were tested on sites and others analysed in the lab. Monitored parameters are: temperature, PH, DO, TDS, TSS, COD, BOD and total coliform group. The methods and process used for the sampling and analysis are the same approaches to the previous missions.

To claim whether or not the testing results are still within the standard limits, proficient standards of those 8 parameters are used. However, only standard taken from Lao law seems to be not enough because some parameters are not mentioned in the law. Other reliable source is, therefore, taken such as from US EPA or from university papers.

Generally, it has been found that every testing result of all parameters in the up and downstream stations of each river show minor difference even though that of those parameters of some downstream stations gives higher values. The results of the water quality analysis are shown in the Tables 4-3 and Annex 1. The explanations of detail are described in the table 4-2.

		
Water sampling and testing at upstream of Nam Ngnaene TP subproject; 8 Jan 2016	Water sampling and testing at upstream of the Houay Luang subproject; 9 Jan 2016	Water sampling and testing at downstream of Nam Gna VI and V; 9 Jan 2016
		
Water sampling and testing at downstream of Nam Ma-Oun subproject; 10 Jan 2016	Water sampling and testing at downstream of Houay Lieng subproject; 4Jan 2016	Water sampling and testing at upstream of Houay Sa II subproject; 5 Jan 2016

Figure 4-4 Photos of water samplings in subprojects

Table 4-1 Water sampling locations

No	Location of water sampling	Coordinate and Projection		
		Easting	Northing	Projection
1	NH1 (Nam Haad)-Up	693351	2223088	WGS 84; Zone 47 N
2	NH2 Nam Haad)-Down	689598	2222683	WGS 84; Zone 47 N
3	MO1 (Nam Ma Oune)-up	709924	2329292	WGS 84; Zone 47 N
4	MO2-down	708194	2328302	WGS 84; Zone 47 N
5	D1 (Nam Dai)-up	719544	2340920	WGS 84; Zone 47 N
6	D2-down	721617	2343597	WGS 84; Zone 47 N
7	NO1 (Nam Ou)-up	790312	2451006	WGS 84; Zone 47 N
8	NO2 (Nam Ou)-Down	787268	2446466	WGS 84; Zone 47 N
9	NL1 (Nam Lan)-up	807251	2364602	WGS 84; Zone 47 N
10	NL2 (Nam Lan)-up	809263	2365188	WGS 84; Zone 47 N
11	NT1 (Nam Tin)-up	663063	2241552	WGS 84; Zone 47 N
12	NT2 (Nam Tin)-Down	662300	2235289	WGS 84; Zone 47 N
13	HX1 (Houay Xo)-up	659223	2189266	WGS 84; Zone 47 N
14	HX2 (Houay Xo)-down	664805	2191449	WGS 84; Zone 47 N
15	NY1 (Nam Gnaene)-up	747341	2320662	WGS 84; Zone 47 N
16	NY2 (Nam Gnaene)-down	749630	2317655	WGS 84; Zone 47 N
17	NGN1(Nam Gna)-up	724834	2348503	WGS 84; Zone 47 N
18	NGN2(Nam Gna)-down	723763	2348075	WGS 84; Zone 47 N
19	NB1 (Nam Bak)-up	707441	2326753	WGS 84; Zone 47 N
20	NB2 (Nam Bak)-down	705100	2327200	WGS 84; Zone 47 N
21	NS1 (Houay Sat)-up	670332	2199399	WGS 84; Zone 47 N
22	NS2(Houay Sat)-down	667766	2199456	WGS 84; Zone 47 N
23	NP1 (Nam Pouk)-up	664805	2236348	WGS 84; Zone 47 N
24	NP2(Nam Pouk)-down	662300	2235289	WGS 84; Zone 47 N
25	NGN1 (Nam Ngene)-up	811908	2363616	WGS 84; Zone 47 N
26	NGN2 (Nam Ngene)-down	808447	2368019	WGS 84; Zone 47 N
27	NTH1 (Nam Thae)-up	795432	2467742	WGS 84; Zone 47 N
28	NTH2 (Nam Thae)-down	789426	2466442	WGS 84; Zone 47 N
29	HL 1(Houalieng)-up	690555	2218519	WGS 84; Zone 47 N
30	HL 2(Houalieng)-down	689966	2218716	WGS 84; Zone 47 N
31	NS 1(Houay Sa II)-up	689223	2218931	WGS 84; Zone 47 N
32	NS 2 (Houay Sa II)-down	689963	2218725	WGS 84; Zone 47 N
33	NC 1 (Nam Chae)-up	665322	2258253	WGS 84; Zone 47 N
34	NC 2 (Nam Chae)-down	665622	2258195	WGS 84; Zone 47 N
35	HM 1 (Houay MakMue)-up	697522	2322430	WGS 84; Zone 47 N
36	HM 2 (Houay MakMue)-down	702762	2325564	WGS 84; Zone 47 N
37	NX1 (Nam Xang)-up	797414	2465152	WGS 84; Zone 47 N
38	NX 2(Nam Xang)-down	789142	2463577	WGS 84; Zone 47 N

Table 4-2 : Interpretation of testing and analysis results

Station/river name	Result interpretation
Nam Haad	For Nam Haad (both up and downstream), almost all parameters tested are with the standard limits except for BOD5 at downstream show 1.3 and 0.73mg/L higher than the standard limit for both up and down stream sampling station, respectively and TSS of Nam Haad up stream sample which is 21.5 mg/L (11.5mg/L higher than that of the standard which is 10mg/L). The flow of the water on that day was so slow even more the water level was quite shallow and slowly flowing. Previous results of water testing in these two stations indicated over standard limits of COD while this latest analysis shows an over standard limit of BOD5. This could claim that this river retains high level of organic matters. However, for total-coliform group, it is very hard to indicate whether the concentration of total-coliform group in the water is above or still within the standard limit. By this it means that the standard states below 5000 MPN/100ml while the detected value is found to be more than 2300 MPN/100 ml. It is not known whether the detected value goes over 5000 MPN/100 ml or not as it only says more than 2300 MPN/100 ml and this also happens to all stations of all rivers (this will not be mentioned over again in the rest of other stations to avoid repetition). Fortunately, the water from these rivers is mainly used for agricultural purposes not for drinking.

Houay Sa	For Houay Sa (both up and down), it has been seen that COD seems to be a little bit over the standard level which is 0.88 and 0.5 mg/L for up and down stream sampling station, respectively. TSS results indicate that the water is clear and safe if compared to the standard (in table ….). However, even though BOD of both stations are 1.41 and 1.51 mg/L (up and down stream, respectively) which are very close to one another, the 1.51 mg/L is considered 0.01 mg/L over the standard limit.
Houay Xo	Like many sites, total coliform group and TSS are considered safe. There is a concern of the quality of the water regarding to COD and BOD because they seem to be quite high when compared to the standard. To be precise, the COD is 5.5 mg/L and 3.21 mg/L for up and down stream, respectively, which is about 0.5 mg/L over the standard for upstream sample while that of the downstream is still considered safe if the indicated standard is below 5 mg/L. In addition, BOD results also go over the limit. It shows 2.23 mg/L and 1.89 mg/L for up and downstream, respectively, while the standard is less than1.5 mg/L.
Houay Sat	It is found that the BOD and COD water testing result of Houay Sat is found to be higher than that of the standard. It is about 1.83 and 0.01mg/L, respectively. It indicates that high concentration of organic matter in the water. The result of the test seems to be similar to the previous testing (in the past) For example, the last testing it was found that BOD and COD concentration at this river showed higher concentration when compared to that of the standard limits. To be more precise, BOD level is 7.42 mg/L and 7.45 mg/L while COD is 6.25 mg/L and 5.12 mg/L at up and downstream, respectively.
Nam Chae	Similar to Houay Liang, the results of testing water quality of Nam Chae show that BOD level is about 1.78 and 2.29 mg/L for up and downstream, respectively. The upstream water seem to be cleaner than that of downstream. In addition, COD of the downstream is about 1.26 mg/L higher than that of standard as well.
Nam Tin	COD in both stations (up and downstream) is found to be over the standard limit and more important than that COD in upstream seems to be higher than that in downstream. To be exact, COD level in up and downstream water samples is about 6.26 and 5.62 mg/L, respectively. The level of COD in upstream water sample is about 0.64 mg/L higher than that in downstream water sample. However, they are all over the standard limit which is only less than5 mg/L. Even more, TSS in downstream water sample is also found higher than the standard allocated (about 10 mg/L higher). This could be said that the downstream water is more turbid than the upstream water.
Nam Pouk	It is found that TSS level for its up and downstream is significant different. The TSS found is 2.5 and 105 mg/L for up and downstream, respectively. This means that the TSS level of the downstream is over the standard limit, which is about 95 mg/L higher. Additionally, COD and BOD for Nam Pouk upstream station are found to be higher than that of standard. The COD and BOD of the upstream station are about 4.11 and 0.23 mg/L, respectively, higher than that of standard (less than5.0 and less than1.5 mg/L,

	respectively). For COD of Nam Pouk downstream station is also found to be higher than that of limit (0.88 mg/L higher) while its BOD is within the limit.
Nam Ma Oune	For Nam Ma Oune (both up and downstream), only COD is found to be over the standard limit for both up and down stream stations. It is about 1.38 mg/L and 2.21 mg/L higher than the standard limit for both up and down stream sampling station, respectively. This indicates high presence of organic matter.
Nam Bak	Apart from the 3 parameters, total coliform group, TSS and BOD, only COD tested is found to be higher than the standard limit. It is about 2.21 and 1.45 mg/L over the standard of less than5 mg/L.
Nam Gna	Nam Gna water seem to be quite turbid and this cause high concentration of suspended solid which is corresponding to the TSS testing which is about 11.0 and 184 mg/L for up and downstream station (it is 1 and 174 mg/L higher than the standard of 10mg/L). Its turbid possibly causes height in COD and BOD as well. It is about 2 and 15.87 mg/L higher than that of COD standard for up and downstream station. It is quite opposite that the level of BOD of upstream station shows higher than that of downstream station. This can be seen that the upstream BOD is about 1.65 mg/L (0.65 mg/L higher than the standard) while the downstream is about 1.2 mg/L (0.3 mg/L below the standard).
Houay MakMue	Like the quality of many water samples from different sites, only COD testing is found to be over the standard limit. It is found 8.54 mg/L of this site and it is about 3.54 mg/L over the standard. High concentration of organic matter can be the reason for this.
Houay Lieng	For Nam Lieng, only BOD testing is found to be over the limit for both up and downstream station. It is about 2.52 and 4.27 mg/L so it is about 1.02 and 2.77 mg/L higher than that of standard for both up and downstream, respectively.
Nam Ngaene	Only COD testing is found to be higher than the standard for upstream water sample (6.64 mg/L which is about 1.64 mg/L higher than that of standard) while all parameters, TSS, COD and BOD, of downstream station are found to be well over the standard limits. It is about 32.0, 16.96 and 3.04 mg/L, respectively and when compared to the standard limits, it is about 22, 11.96 and 1.45 mg/L, respectively higher than the standard limits. It can be said that all along Nam Ngaene TP river there must be some activities causing more contamination.
Nam Dai	In general, Nam Dai water quality seems to have only problem with COD of both up and downstream. The COD detected is 6.26 mg/L for both up and downstream water sample, which is about 1.26 mg/L higher than the limit. This means that the water quality in this river seems cleaned if interpreted from the standard given.

Nam Lan	The testing results of water quality of Nam Lan show acceptable results except for TSS and COD (only in downstream water sample) which seem to be higher than the allocated standard. For upstream station it is 2 mg/L and 4.74 mg/L and 1.36 mg/L (TSS, COD and BOD, respectively) while for downstream station it is 2, 5.69 and 0.2mg/L, respectively
Nam Ngene	It is found that all parameters of Nam Ngene upstream water sample are found safe when compared to standard limits. However, COD and BOD level of downstream water sample are found higher than the limits. It is about 5.05 and 0.05 mg/L, respectively, higher than the limit (less than5.0 and less than1.5 mg/L, respectively). From the results obtained, the water quality is quite clean.
Nam Thae	When compared to the standard given, the water in Nam Thea of both up and downstream is considered quite dirty. To be more precise, the TSS and COD of both up and downstream are 20 and 40 mg/L (TSS of both up and downstream, respectively) and 7.02 and 7.59 mg/L (COD of both up and downstream, respectively). Even though the upstream water sample shows cleaner than that of downstream water sample in regard of TSS and COD, they both are consider dirty. However, it is quite questionable to say that water in upstream station is dirtier than that of downstream station in terms of BOD. BOD in upstream is about 0.79 mg/L and 0.06 mg/L higher than that in downstream station and of standard limit.
Nam Xang	For Nam Xang water quality, only COD and BOD seem to be a problem. COD of both up and downstream is found to be 5.12 and 5.69 mg/L, respectively, which is about 0.12 and 0.69 mg/L over the standard limit. Additionally, it seem illogic that the BOD level of the water sample in upstream station appears to be higher than that of downstream station. It is about 1.92 mg/L while the downstream level is 0.2 mg/L. Even more, the upstream BOD shows higher in level when compared to the standard limit (0.42 mg/L higher).
Nam Ou	For both up and downstream of Nam Ou, there is no sign of over concentration when compared to the standard limits. This can be claimed that for the purpose of its utility and standard limits of the only four parameters tested, it is quite clean and safe.

Table 4-3 Water analysis results

Surface Water Sampling stations		Field parameters				Parameters analyzed in the lab				Standard
		Temp	PH	TDS	DO	TSS	COD	BOD	Total-Coliform group	
		°C		mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100ml	
1	NH1 (Nam Haad)-Up	21.3	7.2	197	5.2	21.5	4.55	2.23	>2300	• **PH:** 5-9. (Water Resource and Environmental Agency, 2009C) • **Temperature:** 13°C-34°C (US EPA, 2012) • **TDS:** 500 (SMCLs [1]) (The California Department of Public Health in Water Quality Division, 2010) • **TSS**: 10 (US EPA, 2003) • **DO:** 6 (Water Resource and Environmental Agency, 2009C) • **COD**: 5 (Water Resource and Environmental Agency, 2009C) • **BOD**: 1.5 (Water Resource and Environmental Agency, 2009C)
2	NH2 Nam Haad)-Down	20.1	7.4	218	6.4	8.0	4.17	2.81	>2300	
3	MO1 (Nam Ma Oune)-up	23.2	6.2	183	4.9	6.0	6.38	0.49	>2300	
4	MO2-down	23.5	6.5	175	5.1	5.0	7.21	0.58	>2300	
5	D1 (Nam Dai)-up	22.2	7.3	98	6.2	6.0	6.26	0.30	>2300	
6	D2-down	23.0	7.2	102	6.8	7.0	6.26	0.87	>2300	
7	NO1 (Nam Ou)-up	21.5	6.3	122	5.4	3.0	3.98	0.42	>2300	
8	NO2 (Nam Ou)-Down	21.8	6.7	176	4.9	2.0	4.55	1.31	>2300	
9	NL1 (Nam Lan)-up	18.3	7.7	197	5.5	20.0	4.74	1.65	>2300	
10	NL2 (Nam Lan)-up	18.2	7.9	183	6.1	2.0	4.74	1.36	>2300	
11	NT1 (Nam Tin)-up	20.4	6.4	73	4.6	10.0	6.26	1.36	>2300	
12	NT2 (Nam Tin)-Down	20.8	7.4	108	5.3	20.0	5.69	1.27	>2300	
13	HX1 (Houay Xo)-up	21.4	7.7	316	6.3	less than2	3.21	1.89	>2300	
14	HX2 (Houay Xo)-down	22.1	8	297	5.9	5.5	5.5	2.23	>2300	
15	NY1 (Nam Gnaene)-up	22.3	8.1	147	4.5	32.0	16.96	3.04	>2300	
16	NY2 (Nam Gnaene)-down	22.1	8.4	131	5.0	3.0	6.64	0.29	>2300	
17	NGN1(Nam Gna)-up	23.6	7.9	129	6.1	11.0	7.0	1.65	>2300	

[1] Secondary maximum contaminant levels

18	NGN2(Nam Gna)-down	23.2	7.4	154	6.9	184.0	20.87	1.20	>2300	• **Total Coliform group**: 5000 (Water Resource and Environmental Agency, 2009C)
19	NB1 (Nam Bak)-up	22.2	7.5	138	5.2	4.0	6.45	0.74	>2300	
20	NB2 (Nam Bak)-down	22.7	7.9	129	4.8	6.0	7.21	0.59	>2300	
21	NS1 (Houay Sat)-up	22.0	6.8	182	6.3	8.5	6.83	1.51	>2300	
22	NS2(Houay Sat)-down	24.1	7.1	139	6.4	9.4	6.7	1.64	>2300	
23	NP1 (Nam Pouk)-up	19.3	6.3	145	5.4	2.5	9.11	1.73	>2300	
24	NP2(Nam Pouk)-down	19.5	6.9	175	4.8	105.0	5.88	0.93	>2300	
25	NGN1 (Nam Ngene)-up	16.4	7.5	187	4.5	7.0	4.74	1.07	>2300	
26	NGN2 (Nam Ngene)-down	18.2	7.2	198	4.3	6.0	10.05	1.55	>2300	
27	NTH1 (Nam Thae)-up	19.3	6.9	192	6.2	20.0	7.02	1.56	>2300	
28	NTH2 (Nam Thae)-down	20.1	6.4	212	6.8	40.0	7.59	1.36	>2300	
29	HL 1(Houalieng)-up	19.5	7.3	177	4.5	9.5	4.17	2.52	>2300	
30	HL 2(Houalieng)-down	20.1	7.2	165	4.9	9.0	4.93	4.27	>2300	
31	NS 1(Houay Sa II)-up	19.8	6.9	96	6.3	less than2	5.88	1.41	>2300	
32	NS 2 (Houay Sa II)-down	21.0	6.7	101	4.5	21.0	3.41	2.82	>2300	
33	NC 1 (Nam Chae)-up	23.6	8.1	87	6.6	less than2	6.26	3.79	>2300	
34	NC 2 (Nam Chae)-down	22.8	7.7	98	6.1	less than2	4.93	3.28	>2300	
35	HM 1 (Houay MakMue)-up	21.8	8.3	129	4.1	6.0	8.54	1.20	>2300	
36	HM 2 (Houay MakMue)-down	22.1	7.6	145	4.4	6.3	7.8	1.30	>2300	
37	NX1 (Nam Xang)-up	19.4	6.3	156	5.3	less than2	5.69	1.92	>2300	
38	NX 2(Nam Xang)-down	18.8	6.8	123	4.8	2.0	5.69	0.2	>2300	

4.4 Agro-Chemical Study

With the concerns of intensified chemical fertilizers and pesticides use in the irrigation command area of subprojects, the agro-chemical study was conducted during the mission 2 of year 2015; with support from Plant Protection Center of Agricultrue Department; Ministry of Agriculture and Forestry. The tests were conducted with GT test kits by the technical team of the Center. Such test kits can use for detection of Organophosphate and Carbmate groups.

The samples of soil, water and plants were collected in 7 subprojects of Luang Namtha and Phongsaly provinces. These include Nam Lan (Ban Nawai), Nam Ngene (Ban Namark), Nam Gna VII&Houay Luang (Ban Nakham), Nam Gna IV&V (Ban Namai), Nam Ma-Oun (Ban That), Nam Bak (Ban Nam Bak) and Houay MakMue (Ban Sivilay). The selection of these sampling locations considered the areas with intensive use of pesticides/chemical fertilizers e.g. banana plantations and intensive agricultural land of villagers with intensified agro-chemical use. However, the study was not taken place in Bokeo due to the schedule and availability of technical team of Center. It is planned to conduct such study for Bokeo province during the first mission of 2016l.

The scope of the tests covered 5 water samples, 18 soil samples and 18 plants (long bean, vegetables and banana) in the irrigation command areas and banana plantations in 6 subprojects in Luang Namtha and Phongsaly. In addition to testing of samples for pesticides and chemical fertilizer, the awareness trainings and discussions were conducted with villages, DCOs, PPOs, DONREs and PONREs in 6 subprojects.

After the samples collected on sites, the tests were taken place at the village meeting hall so that the villagers, DCOs, PPOs, DONREs and PONREs can involve and being demonstrated. At the end of each test with results, all the participants were invited to see the results for better understanding and more awareness of the impact of chemical fertilizers/pesticides use for their health and surrounding environment. The details of the agro-chemical study are attached in the Annex 2.

4.4.1. Result of Soil Test

As said, there are 18 samples were collected in 6 subprojects; 2-3 samples for each subprojects and 10 plots per sample. The samples were collected in the banana plantation areas and irrigated cropping areas of villagers. The results show that 8 out of 18 samples no indication of contamination detection, 7 samples with low detection (considered as low risk), but other 3 samples with high detection (high risk). The high contamination of pesticide in the soil was collected in the banana plantation at Silimon village (close to Nam Kham village of Nam Gna IV and V subproject), Ban That (Nam Ma-Oune subproject), Nam Bak (Nam Bak subproject). These soil samples with high pesticide contamination were collected in the banana plantations with age more than 5 years old. Details of the test result in each site are presented in the table 4-4.

Table 4-4 Soil test results

No	Sample No	**Subproject name**	Village	District	Province	No detection	Low detection	Hihg detection
1	Banana 1	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		
2	Banana 2	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		
3	Banana 3	Nam Gna IV &V	Silimon	Sing	Luang Namtha			✓

4	Pamkin 1	Nam Gna IV &V	Silimon	Sing	Luang Namtha	✓		
5	Banana	Nam Gna IV &V	Nakham	Sing	Luang Namtha		✓	
6	Banana	Nam Ma-Oun	That	Long	Luang Namtha			✓
7	Ginger	Nam Bak	Nam Bak	Long	Luang Namtha		✓	
8	Banana	Nam Bak	Nam Bak	Long	Luang Namtha			✓
9	Banana	Houay MakMue	Houay Mo	Long	Luang Namtha	✓		
10	Banana	Houay MakMue	Chakhampi	Long	Luang Namtha	✓		
11	Bean 1	Nam Lan	Nawai	Bountai	Phongsaly		✓	
12	Bean 2	Nam Lan	Nawai	Bountai	Phongsaly	✓		
13	Bean 3	Nam Lan	Nawai	Bountai	Phongsaly	✓		
14	Bean 4	Nam Lan	Nawai	Bountai	Phongsaly	✓		
15	Pumkin 1	Nam Ngene Namrk	Namark	Bountai	Phongsaly		✓	
16	Pumkin 2	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
17	Bean 1	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
18	Bean 2	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
Number of samples						**8**	**7**	**3**
Percentage (%)						**44.44**	**38.89**	**16.67**

4.4.2 Result of plant/crop Test

The samples of different plants, crops and vegetables were collected for test. These samples were collected from the old banana plantations, current banana plantations, irrigated cropping areas. The samples include green banana, long bean, vegetables and ginger. Totally there are 18 samples were collected in 6 subprojects areas.

The results show 7 out of 18 plant and crop samples with no detection, 7 samples show low contamination of agro-chemicals (low risk) and 4 samples with high detection (high risk). High contamination of plants and crops is found in the banana at Ban That (Nam Ma-Oun subproject), ginger (taken from old banana plantation at Ban Nam Bak (Nam Bak subproject), 2 samples of green onion from Ban Namark (Nam Ngene Namark subproject). The details of the test results of the plants and crops are summarized in the table 4-5.

Table 4-5 Plant and crop test results

No	Sample No	Subproject name	Village	District	Province	No detection	Low detection	Hihg detection
1	Vegetable (Coriander)	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		

2	Vegetable	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		
3	Banana	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		
4	Vegetable	Nam Gna IV&V	Silimon	Sing	Luang Namtha		✓	
5	Vegetable	Nam Gna IV&V	Silimon	Sing	Luang Namtha		✓	
6	Banana	Nam Ma-Oun	That	Long	Luang Namtha			✓
7	Ginger (in an old banana plantation	Nam Bak	Nam Bak	Long	Luang Namtha			✓
8	Vegetable	Nam Lan	Nawai	Bountai	Luang Namtha	✓		
9	Bean 1	Nam Lan	Nawai	Bountai	Luang Namtha	✓		
10	Bean 2	Nam Lan	Nawai	Bountai	Luang Namtha	✓		
11	Bean 3	Nam Lan	Nawai	Bountai	Phongsaly		✓	
12	Bean 4	Nam Lan	Nawai	Bountai	Phongsaly	✓		
13	Bean 1	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
14	Bean 2	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
15	Vegetable 1	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
16	Vegetable 2	Nam Ngene Namark	Namark	Bountai	Phongsaly		✓	
17	Green onion 1	Nam Ngene Namark	Namark	Bountai	Phongsaly			✓
18	Green onion 2	Nam Ngene Namark	Namark	Bountai	Phongsaly			✓
Number of samples						7	7	4
Percentage (%)						38.89	38.89	22.22

4.4.3 Result of Water test

Five (5) water samples for agro-chemical test were collected in sufarce water of streams in 3 subprojects; namely Houay Luang, Nam Gna and Nam Ma-Oun. The samples were collected at downstream areas of subprojects; where the pesticides and chemical fertilizers would potentially transport to.

The same testing kit for soil and plant was used for water test. The results of tests indicated no detection for all water samples. It is assumed that the pesticide and chemical fertilizer is transported by the river flow in the streams or deposited in the riverbed.

Table 4-6 Water test results

No	Sample No		Village	District	Province	No detection	Low detection	Hihg detection
1	Houay Luang 1	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		
2	Houay Luang 2	Nam Gna6-Houay Luang	Namai	Sing	Luang Namtha	✓		
3	Houay Luang 3	Nam Gna 6-Houay Luang	Namai	Sing	Luang Namtha	✓		
4	Nam Gna 1	Nam Gna6-Houay Luang	Silimon	Sing	Luang Namtha	✓		
5	Nam Ma-Oun	Nam Ma-Oun	That	Long	Luang Namtha	✓		
Number of samples						**5**	**0**	**0**
Percentage (%)						**100**	**0**	**0**

4.4.4. Awareness Raising on Pesticide-Chemical Fertilizer

Apart from the sample testing and demonstration for the stakeholders, the awareness raising activities were conducted during the meeting with the stakeholders. The activities include power point presentation, group discussion and interview of persons who work for banana plantation. The awareness raising activities were participated by villagers, village authorities, DCOs, DONREs, PPOs and PONREs.

It was said by the participants that they got better understanding and awareness of the impact of agro-chemical use after they involved the activities through integrated approach of testing, demonstration and presentation of relevant issues. It is confirmed that they have more concerns about pesticide impacts after seeing the evidence of test results. It was also confirmed that they were previously trained by the agencies, but no demonstration or test show.

Demonstration and testing of samples at Ban Nakham (Nam Gna 6-Houay Luang subproject); 9 Jan 2016

Sample of soil, plants, crop and water for testing and demonstration at Ban Nakham (Nam Gna 6-Houay-Luang subproject); 9 Jan 2016

Demonstration and testing of samples at Ban Nam Bak (Nam Bak subproject); 10 Jan 2016

		
Demonstration and testing of samples at Ban Nawai (Nam Lan subproject); 12 Jan 2016	Demonstration and testing of samples at Ban Namai (Nam Gna IV&V subproject); 9 Jan 2016	Soil sampling at Ban Nakham (Nam Gna IV&V subproject); 9 Jan 2016

Figure 4-5 Photos of sampling, demonstration and testing of soil, water and plant samples

4.5 Complaints Concerning Environmental Issues

During the consultations with the stakeholders the discussions on complaints concerning environmental issues; which potentially be caused by subproject activities, were conduct. This is to get the feedback from communities concerning the environmental impacts from implementation of subprojects. It was reported and confirmed by villagers and village authorities that no environmental concerns or impacts on sites from the construction activities of the subprojects. Instead, they have more concern on the impact of the pesticides/chemical fertilizers in the soil and plants to their health.

5 Results of Social Safeguards Monitoring

5.1 Land Acquisition, Resettlement and Commpensation (LARC)

Relevant reports of subprojects concerning the social safeguards were reviewed; particularly for 8 subprojects of year 3. The proper documentation and implementation processes of social safeguards were properly prepared. The EGP, EGPs, GAPs, and RAPs were studied and prepared for all 26 subprojects. It is noted that only few of these have some minor impacts; mainly related to land acquisition at earlier stage of the subproject implementation.

As said there were few temporary structures relocated in the subprojects of year 1, but no displacement of structures in year 2 and 3. All foreseen impacts were consulted and mitigated through grievance process required by Lao regulation and ADB requirements.

As reported in the previous safeguards monitoring reports that all the affected land areas of year 1 and 2 were less than5% of AHs' total productive land areas.

Based on the review of FS reports of 8 subprojects of year 3, it is reported that there are only 3 subprojects that will result in loss of agricultural land and trees due to rehabilitation works of these subprojects. These include Nam Gna IV and V, Houay MarkMeu and Nam Chae irrigation subprojects. The details as followings:

- **Nam Gna IV&V**: Loss of agricultural land of about 330 sqm owned by 3 AHs for whom this would represent a loss of 0.3% of their total productive land. There are no severely AHs losing more than 10% of their productive land. Loss of 12 trees owned by one of the 3 AHs losing 2.7% of their total trees they own. Thus a land acquisition and compensation budget has been planned with a total of rounded KN 2.4 million mainly based on values of affected assets but no allowance.
- **Houay MakMue**: Loss of agricultural land of about 1,500 sqm owned by 2 AHs for whom this would represent a loss of 2.2% of their total productive land. There are no severely AHs losing more than 10% of their productive land. Loss of 105 trees owned by the same 2 AHs losing 2.6% of their total trees they own. Thus the estimated cost for land acquisition and compensation budget has been planned with a total of rounded KN 42 million mainly based on values of affected assets but no allowances.

  Besides, the 2 AHs said in the FS report, it is reported during the meeting and discussion with the village authorities and villagers of Ban Sivilay that there are 3 plots of agricultural land owned by 3 households (namely: Mr. Onh, Mr. Yiapaeo and Mr. Phoumtheth) will be affected additionally due to new design. However, the PPO, DCO and consultant confirmed to review and revised the design to avoid such impact.
- **Nam Chae**: Loss of agricultural land of about 1,920 sqm owned by 4 AHs for whom this would represent a loss of 2.5% of their total productive land. There is one severely AH losing more than 10% of his productive land. Loss of 50 trees owned by one of the 4 AHs losing 3.3% of their total trees they own. A land acquisition and compensation budget has been planned with a total of rounded KN 35 million mainly based on values of affected assets but no allowances.

Totally about 3750 sqm of agricultural land owned by 9 households and 167 trees owned by 4 households within 3 subprojects will be potentially affected. However, 8 of these 9 AHs loss less than2.7% of their total productive land and only 1 AH would loss more than 10% of his total productive land at Nam Chae subproject. None of these owners are female-headed households. However, no loss of temporary and permanent structures reportedly will be affected.

With such losses, the AHs were willing to voluntarily donate for the Project of such affected land areas and no request of compensation by cash and this is confirmed by the AHs in 3 subprojects during the consultation with the villagers.

The land acquisition and compensation methodologies applied are the same for all subprojects through the proper procedures and mitigation in accordance with the ADB policy and relevant laws of Lao PDR on resettlement and compensation. However, the paper work for voluntary donation would be required; signed by land owner and DCO.

It is reported that no loss of agricultural land or assets are affected for other 5 subprojects of year 3. This is also confirmed by the village authorities and villagers.

5.2 Ethnic Group Development Plan (EGDPs)

A. Overview of Subproject's EGDPs

As reported in the social impact assessment (Annex 7 of FS reports) of the subprojects that the beneficiaries are composed of different groups of minority people (proportion/percentages and number of households) as summarized in the Table 5-1. It was proposed in the FS reports concerning the potential impacts to the indigenous people from subproject's activities and the development plans for them are prepared. It is also the aim of the project to support the improvement of livelihood of minority people. Social impact assessment (SIA) report also mentioned that the ethnic groups in the subprojects were strongly encouraged to involve in the process of the assessment and implementation. These include their participation in consultations; including group discussions and project implementation activities e.g. community development programs and membership of WUGs.

Table 5-1 Composition of ethnicity in subprojects

No.	Province	District	Subproject Name	Ethnic minority
1	Bokeo	Houayxai	Nam Tin Irrigation	236 HHs (Mon-Khmer), 501 HHs (Hmong-lu Mien) and 1 HH (Chino-Tibet) out of total 1588 HHs
2			Nam Pouk	338 HHs in Xay Chalern are all of the Hmong-lu Mien, 413 HHs in Nam Pouk are all of the Lao-Tai
3			Nam Chae	The 91 HHs in Nam Smork are Khmu (Mone-Khmer), 413 HHs in Nam Pouk are Leu (Lao-Tai)
4		Paktha	Houay Xo Irrigation	100% of Lao-Tai (Pangsa and Dong villages) and Mixed with Mong-Lu Mien (Xo village)
5			Houay Sat Irrigation	152 HHs in Ban Hat Don Keo are all of the Lao-Tai Ethno-Linguistic Group
6			Houay Sa II	63% Lao-Tai, 28% Mone-Khmer, 8% Hmong-lu Mien and 1% Tibeto-Chinese
7		Pha Oudom	Nam Haad Right Bank Irrigation	63% Mon-Khmer (31% are poor), Others are Lao-Tai
8			Nam Haad Left Bank Irrigation	Lao- Tai (46%), Mone-Khmer (43%) and Hmong-lu Mien (11%)
9			Houay Lieng Irrigation	68% Mone-Khmer, 32% Lao- Tai (Leu)
10	Luang Namtha	Long	Nam Ma OuneIrrigation	2 HHs of minority groups, 1- Mon-Khmer and 1- Chino-Tibet; Others are Lao-Tai
11			Houay MakMue	Akha-51%, Leu-25% and Hmong-24%.

12			Nam Bak Irrigation	53% Lao-Tai, 25% Mone-Khmer and 22% Tibeto-Chinese.
13		Namtha	Hong Kong Irrigation	4% Hmong-lu mien, 2% Mon-Khmer and others are Lao-Tai
14			Nam Gnang Irrigation	86% Lao-Tai, 14% Mone-Khmer (8%), Hmong-lu Mien (4%), and 1% Tibeto-Chinese
15			Nam Ngaene TP	86% Lao-Tai, 14% are: 6% Mone-Khmer; 8% Hmong-lu Mien; and less than 1% of Tibeto-Chinese.
16		Sing	Nam Dai (V) and (VI) Irrigation	No ethnic minority in 3 villages (No EGDP required)
17			Nam Gna6-Houay Luang Irrigation	52% Lao-Tai; 11% Mone-Khmer; 36% Tibeto-Chinese; less than1% of the Hmong-lu Mien
18			Nam Gna IV&V Irrigation	99% Leu and 1% Mone-Khmer
19	Phong-Saly	Boun Tai	Nam Lan Irrigation	Only HH of Mon-Khmer others are Lao-Tai
20			Nam Ngaene Irrigation	Leu under the dominant Lao-Tai Ethno-Linguistic Group, Khmu of the Mone-Khmer Linguistic Group, Hmong of the Hmong – lu Mien Group, and Phounoi of the Tibeto-Chinese Group
21			Nam Ngene Namark Irrigation	Leu-22%, Hmong– 27%, and Akha 24% and Phunoi-27%
22		Nhot Ou	Nam Ou Irrigation	4 HHs of Mon-Khmer and 215 HHs of Chino-Tibet and others are Lao-Tai
23			Nam Thae Irrigation	85% Lao-Tai; and 15% Tibeto-Chinese
24			Nam Xang Irrigation	Lao-Tai - 96% and 4% Tibeto-Chinese
25		Phongsaly	Ban Mong Chao – Kormaen Road	7 villages are Phounoi and 1 village Akha (sub-group of Tibeto-Chinese)
26			Kormaen-Phongsaek Road	100% Phunoi

B. Key Findings of EGDP Implementation of Subprojects:

The implementation activities of EDGP for 18 subprojects of year 1 and 2 were reported in the previous monitoring reports. No additional potential impacts reported or observed during the mission 2 of 2015 from these subprojects.

The information associated with ethnic minority for 8 subprojects of year 3 is attached to the FS reports of subprojects Annex 7. The proportions of 4 main ethnic groups are comprised of 65.92% (2321HHs) of Lao-Tai Ethno-Linguistic Group, 3.27% (115 HHs) of Tibeto-Chinese group, 26.92% (948HHs) of Mone-Khmers group and 3.89% (137 HHs) Hmong-lu Mien group. For the baseline information of subprojects of years 1 and 2 already outlined in previous reports.

From the discussion with villagers in the villages of subprojects of year 3, it was confirmed that the ethnic minority people were encouraged and prioritized to participate in the implementation activities of year 3 subprojects. These include the participation of minority people in the consultations/meetings, trainings and support programs e.g. pilot agriculture productions e.g. SRI and improvement of contract farming system in subprojects.

Main outputs of the Project implementation of all subprojects are that the ethnic group of people get benefits from the improved infrastructures of years 1 and 2. These include the use of improved irrigation systems, improved access road from Mongchao-Phongsaek, access to agriculture land

by the improved access roads along the irrigation canals, access to marketing, improved knowledge of agriculture practice, better understanding of gender and ethnic minority issues. In addition, the different ethnic minority groups become the members in the organizational structures of WUGs, grievance committees at villages.

5.3 Gender Action Plans (GAPs)

A. Review on GAP

A Gender Action Plan was developed for each subproject based on the Project-Wide Gender Action Plan. The principles of the Gender Action Plan (GAP) are: (i) equality of project benefits and opportunity sharing between men and women; (ii) systematic approach to reduce gender inequalities in the project areas; (iii) targeted approach for women of ethnic minorities, (iv) collection of gender disaggregated data including benefit monitoring and evaluation; and (v) increased representation of women in decision-making bodies at all levels.

The main concern of the plan is the promotion of the involvement of women in subproject activities and their representation in the village administration committees/units and village organizations. It was recommended the subprojects aim to get a) 30% women representation in the WUG/FPG and participation in subproject management committees; b) at least 30% women attendance in subproject consultation forums, meetings, trainings and study tours; c) development of programs to ease the burdens of women; c) Women assigned in financial related WUG/FPG positions; and d) coordination with local education offices for programs to improve the literacy/numeracy programs.

The Project also tries to consider and improve the following aspects for women:

- Women are not proportionally represented in the leadership of the village administration; accepting for the LWU;
- Prominent role in the safekeeping of money, marketing and household basic chores;
- More responsibilities in household activities and performs agricultural production works;
- The capacity building for women and gender training is needed to promote community awareness on the importance of participation of women in the community development;
- Female group discussions were conducted during the SIA study; and
- In some subprojects, the percentage of the female-headed households is high (see the Table 5-2) and they are poor and need more supports on GAP and community development plan

Table 5-2 Information of female-headed households and poverty status of subprojects

No.	Province	District	Subproject Name	Percentage of female-head households (%)	Percentage of poor FHHs
1	Bokeo	Houayxai	Nam Tin Irriation	5% of 1558 HHs	41% of FHHs are poor
2			Nam Pouk Irrigation	42 FHHs in 2 villages	38% FHHs are poor
3			Nam Chae Irrigation	23 FHHs	17% are poor
4		Paktha	Houay Xo Irrigation	3% of total HHs	2 FHHs are poor
5			Houay Sat Irrigation	15 FHHs	1 poor FHH

6			Houay Sa II Irrigation	25 FHHs or 7% of total HHs	16% are poor
7		Pha Oudom	Nam Haad Right Bank Irrigation	8% of 618 HHs	62% of FHHs are poor
8			Nam Haad Left Bank Irrigation	100 FHHs or 7% of total HHs	53% HHs are poor
9			Houay Lieng Irrigation	8% FHHs	64% rice deficits
10	Luang Namtha	Long	Nam Ma OuneIrrigation	2.6% of 67 HHs	1 FHHs is poor
11			Nam Bak Irrigation	9 FHHs	5 poor FHHs
12			Houay MakMue Irrigation	12 FHHs	50% are insufficient with rice
13		Namtha	Hong Kong Irrigation	27% of 488 HHs	27% of FHHs are poor
14			Nam Gnang Irrigation	169 Of total FHHs,	No poor FHH
15			Nam Ngaene TP Irrigation	64 FHH	36% are rice deficits
16		Sing	Nam Dai (V) and (VI) Irrigation	7.1% of 311 HHs	32% of FHHs are poor
17			Nam Gna (IV)&(V) Irrigation	12 FHHs	17% are s poor
18			Nam Gna-Houay Luang Irrigation	6% of total HHs	33% are poor
19	Phong-Saly	Boun Tai	Nam Lan Irrigation	3.3% of 165 HHs	100% Rice sufficient
20			Nam Ngaene Irrigation	38 FHHs	7 are very poor
21			Nam Ngene (Namark) Irrigation	6 FHHs	5 HHs are poor
22		Nhot Ou	Nam Ou Irrigation	2% of 844 HHs	15% of FHHs are poor
23			Nam Thae Irrigation	8 FHHs	No poor FHH
24			Nam Xang Irrigation	7 FHHs	3 FHHs with deficit
25		Phongsaly	Mong Chao – Koman Road	26% of 488 HHss	44% of FHHs are poor
26			Kormaen-Phongsaek Road	12 FHHs	2 FHHs are poor

The baseline data of the female population reported in the FS reports of 8 subprojects of year 3 is 10134 people (49%) out of 20648 total populations. It is indicated that the literacy rates of women with age of 18 years old and above in the villages are lower than men; excepting in Nam Chae subproject where the literacy of women is 71% and 70% for male population. With the project target, 30% of representative in the executive committees shall be women and at least 30% of participants in the meetings or consultation workshops shall be women.

B. Progress of the GAPs

It was confirmed and noted that more than 30% of executive committees; particularly WUGs in all subprojects of year 1 and 2 are women and committees of some year 3 subprojects are also established with more than 30% of female members. The details of the percentage of women in the WUG committees are presented in the table 5-3.

It was also confirmed by village authorities and villages that the women are strongly encouraged to participate in consultations/meetings; including the trainings. This is to promote the women in the project implementation and benefits. With discussion with the villagers in subproject it is noted that the villagers have more understanding on gender equality after they were trained with the

gender issues-related training conducted by the Project. Key findings for GAPs from the second safeguards monitoring of 2015 are that:

- Proportion of women appointed as a member of the WUG committees in all subprojects of year 1 and 2 reach more than 30%. It is noted that all subprojects achieved the target more than 30% of the WUG members shall be female. Detail of the female members in the WUGs is shown in the table 5-3.

- WUG committees for Houay Lieng and Houay Sa II subprojects of year 3 were established with 6 female members. However, the target is not met as only 22% for Houay Sa II and 25% for Houay Lieng. It is confirmed that the women were promoted to involve more, but they voluntarily no to involve. To meet with the requirement, the PPO and DCO should promote more involvement of women to the committees. However, it is said that the committees for other subprojects are on the process.

- The implementations of project activities have well promoted the participation of the women; particularly in the public consultations, training, meeting and the decision making.

- Training on socio-economic data evaluation of project was undertaken during mid May 2015 in pilot subprojects (one pilot subproject per province). Reportedly there are 39% of female participants for Bokeo, 30% in Luang Namtha and 28% for Phongsaly.

- Trainings on gender and indigenous people issues for local people in the subprojects.

- The encouragement of female employment in the village are promoted to engage in the project implementation (for subprojects being constructed). 5 Women have been employed to work in subprojects of year 3; particularly as cook position totally 5 people. These include 1 female cook for Nam Ngaene TP, 1 female cook for Houay MakMue, 2 female cook for Houay Sa II and 1 female cook for Nam Chae subprojects. These female cooks are local residents of beneficiary villages close to the construction sites.

Table 5-3 Information of female members in the WUG committees in subprojects

No.	Province	District	Subproject Name	Total WUG committee	% of women in WUG	Year
1	Bokeo	Houayxai	Nam Tin Irriation	44	41%	1
2			Nam Pouk Irrigation	9	33%	2
3			Nam Chae Irrigation	Not yet established		3
4		Paktha	Houay Xo Irrigation	20	40%	1
5			Houay Sat Irrigation	7	43%	2
6			Houay Sa II Irrigation	9	22%	3
7		Pha Oudom	Nam Haad Right Bank Irrigation	9	44%	1
8			Nam Haad Left Bank Irrigation	13	31%	2
9			Houay Lieng Irrigation	16	25%	3
10	Luang Namtha	Long	Nam Ma Oune Irrigation	7	43%	1
11			Nam Bak Irrigation	7	43%	2
12			Houay MakMue Irrigation	Not yet established		3
13		Namtha	Hong Kong Irrigation	28	43%	1
14			Nam Gnang Irrigation	7	43%	2
15			Nam Ngaene TP	Not yet established		3
16		Sing	Nam Dai (V) and (VI) Irrigation	14	57%	1

17			Nam Gna-Houay Luang Irrigation	14	43%	2
18			Nam Gna (VI)&(V) Irrigation	Not yet established		3
19	Phong-Saly	Boun Tai	Nam Lan Irrigation	8	37%	1
20			Nam Ngene Irrigation	8	37%	2
21			Nam Ngene (Namark) Irrigation	Not yet established		3
22		Nhot Ou	Nam Ou Irrigation	24	37%	1
23			Nam Thae Irrigation	8	37%	2
24			Nam Xang Irrigation	Not yet established		3
25		Phongsaly	Mong Chao – Koman Road	31	32%	1
26			Kormaen-Phongsaek Road	16	37%	2

		
Interview with 2 female cooks at Houay Sa II subproject; 6 Jan 2016	Interview with female cook at Nam Ngaene TP subproject; 8 Jan 2016	Interview with female cook at Nam Chae subproject; 6Jan 2016

Figure 5-1 Photos of interview of the female employees on sites

5.4 Employment

No employment for 18 subprojects of year 1 and 2 as the construction works of these subprojects were completed. For subprojects of year 3, there are approximately 50 people in 6 subprojects of year 3. 5 out of these 50 employees are women; in the position of cook and/or house maid. There is no report of local employment for Nam Xang and Nam Ngaene TP subprojects. It is reported that the payments the female employees are varied in subprojects and positions. It is noted that the payment among the female employees are also different in subprojects despite the same or similar position. It is therefore the PPOs and DCOs should take into account the similar payment for the same position. In addition, it is also noted that the paper document for employment should be also required to ensure the fair payment for the workers; especially female workers.

In general, the number of the local workers is less even though the local people are reportedly encouraged and asked to work with the Contractors in subprojects. This is due to the facts that: a). villagers are not willing to be workers for the construction activities of subprojects, b). limited requirement of unskilled labour for construction works; c). lower wage than their daily agriculture/crop production (tea collecting and selling or growing rice or other crops can provide more money than labouring), d) the positions available are not permanent; e). People think that the construction work must be hard for them and need some skills; comparing to their daily agricultural practice or working in their farms.

5.5 Public Consultation and Information Disclosure

With the review of project documents, the public consultations and meetings were undertaken at different stages of subproject implementation of all 26 subprojects. It was also confirmed that the dissemination of project-relevant information to the local villagers through the presentations, data collection, consultations and discussions. This is to make sure that people in the beneficiary communities are informed and their understanding concerning the project implementation plans; including potential impacts, mitigation measures and benefits. It is also confirmed by the villagers that the consultations considered the participation of women, minority ethnic groups and vulnerable people in the subproject areas.

5.6 Complaints

During the monitoring mission, the discussions with the beneficiary communities in villages of subprojects were undertaken to discuss concerning the complaints related to subproject implementation. It was confirmed by villagers and village authorities that no any complaints raised by the villagers regarding social issues.

6 Capacity Building for the PPOs and DCOs on Environmental and Social Safeguards

Capacity building is part of the Project support program for enabling the authorities at different levels to gain the knowledge and practical experiences on socio-economic development. The aim of the capacity building is not only for the government bodies, but communities or group of people to make sure that the skills and experiences they got can be extended to improve their daily living condition in the future.

As said, the Project has continuously supported the capacity building to PPOs and DCOs as well as the PONREs and DONREs for knowledge and skill of environmental management and monitoring. This includes the engagement in IEE processes, Consultations, safeguards monitoring missions. In each safeguard monitoring mission the representatives of PPOs, DCOs, PONREs and DONREs are also demonstrated and trained of environmental and social safeguards monitoring, water sampling and testing. During the second mission of 2015, the representatives of DCOs, PPOs, DONREs and PONREs were also trained and demonstrated of sampling of soil, water and plant for testing and getting better understanding of agro-chemical issues.

In addition, the PPOs, DCOs, DCOs, PONREs and DONREs have been involved in the independent safeguards monitoring in each mission. Moreover, the trainings activities associated with environmental and social safeguards have been implemented in different topics. This includes gender, hygiene and proper chemical use. With the engagements in the different activities of environmental and social safeguards, some capacity of representatives of PONREs, DONREs, PPOs and DCOs would have been improved.

7 Conclusion, Recommendation and Follow up Actions

7.1 Conclusion

This report is to present the results of second monitoring mission of 2015; which undertaken during 2-15 January 2015. Site visits were undertaken in all 26 subprojects of year 1, 2 and 3. However, the consultations were only taken with the beneficiaries in 8 subprojects of year 3. It was noted that 18 subprojects of year 1 and 2 were completed and other 8 subprojects are being constructed.

Based on the site visit and discussion with the stakeholders, there are no significant environmental and social issues observed on sites and reported by communities. The issues observed and reported are minor and mitigable.

The key findings on environmental and social issues observed and reported during the mission and results of the public consultation are summarized as following:

A. Environmental Safeguards Issues:

- **IEE of permits:** IEE certificates for 18 subprojects of year 1 and 2 were approved. For the subprojects of year 3, the IEE reports were submitted to PONREs and 3 out of 8 subprojects were also approved and certified. Pending IEE certificates are 3 subprojects in Bokeo (Nam Chae, Houay Lieng and Nam SaII subprojects) and other 2 subprojects in Phongsaly (Nam Ngene Namark and Nam Xang subprojects). During the monitoring, the discussion with PPOs and PONREs of 2 provinces made regarding the IEE certificates issuance.

- **Erosion and Sediment deposit**: It was noted that some earth works were taken place on sites of 8 subprojects of year 3 subprojects. Some of these activities would potentially cause sediment transport; particularly the desilting and diversion works. However, the impact would be less as the construction works are planned to complete before wet season. Therefore, the soil erosion and silt deposition would be minimal. The subprojects that would potentially subject to erosion and sediment transport during the wet season are Nam Xang, Houay Sa II, Houay MakMue and Nam Gna IV and V due to stockpiling of spoil, steep slope of spoil and high terrain of the location. Nevertheless, potential impact would be lessened if the construction and/or rehabilitation works and site stabilization were completed as plan; before wet season. Recommendation was given to the PPOs and DCOs concerning the site rehabilitation and stabilisation. The recommendation was given to the PPOs for this regards.

- **General Waste Management**: Waste management for most the construction sites and workers' camps were quite well managed comparing to previous missions. It is observed that the waste was cleaned and kept in the pits on site. This would be due to the better understanding of the contractors on environmental obligation and compliance. However, improved waste management on sites at Houay MakMue subproject is required; particularly the construction waste. Recommendation was given to the PPO for action.

- **Disturbance of water flows**

  Most of the disturbance of water flow was caused by temporary diversion of stream for the rehabilitation and/or construction of weir structures. The streams were diverted at Nam Gna (IV) and V, Houay MakMue, Nam Chae and Houay Sa II. Such impact of diversion

will not cause significant impact to the downstream aquatic resources and local villagers because the diversions take place in short distance and re-diverting into the stream upon the completion of construction works. Inevitably, the temporary impact on water quality of stream during the few hours of diversion works.

- **Water Quality**: The results of the water quality testing and analysis of basic parameters show that the condition of the water quality in streams where the subprojects existed is still in good condition. Some variance between upstream and downstream are occurred, but no significant values of parameters found in comparison to the surface water quality standard of Lao PDR. The variance of the water quality parameters between upstream and downstream of subprojects would be not much affected by the construction activities of the subprojects, instead mainly influenced by other activities at upstream within the watershed/catchment e.g. agricultural activities.

- **Pesticide/chemical fertilizer contamination:**
  The samples of soil, water and plants were collected in 7 subprojects of Luang Namtha and Phongsaly provinces; Nam Lan, Nam Ngene, Nam Gna VII-Houay Luang, Nam Gna IV&V, Nam Ma-Oun, Nam Bak and Houay MakMue. The tests consist of 6 water samples, 18 soil samples and 18 plants.
  The results show that 3 out of 18 samples detect high contamination (high risk) of pesticide in the soil. These contaminated soil samples were collected in the banana plantation at at Silimon village (close to Nam Kham village of Nam Gna IV and V subproject), Ban That (Nam Ma-Oune subproject), Nam Bak (Nam Bak subproject). For the plant samples, 4 samples with high detection (high risk) of pesticide was found in the banana at Nam Ma-Oune, ginger taken from old banana plantation at Nam Bak (Nam Bak subproject), onion from Nam Ngene Namark. However, no detection of contamination for 5 water samples.

- **Terrestrial and Aquatic Resources**:

  For 8 subprojects of year 3, the base line data of the aquatic resources will be collected during the first mission of year 2016. It was observed and reported during the mission that no fishing activities taken place by the workers in the subprojects; but the fishing net found at Houay MakMue construction site; which would be used for fishing.

  Fish conservation has been practiced in some subproject areas; including Nam Tin, Houay Xo, Nam Ma Oun, Houay Luang, Nam Ou and Nam Lan. It is recommended that the fish conservation zone would be also introduced and promoted for subprojects where possible e.g. Nam Xang, Nam Ngene and Nam Gna due to the potential of water availability at upstream, year-round water flow and surrounding environment.

  Concerning the terrestrial resources, most of the rehabilitation and construction works of 8 subprojects are mainly taken place in the agricultural land areas. It was found that the abundance of the forest resources; including wild animals in the vicinity of subprojects had been disturbed and decreased. During the site visit, hunted wild animals and hunting equipments were found at the camps of Nam Xang and Houay MakMue subprojects. These include bird trapping net, traps, dried wild animal. With this concern, the advice was given to the site engineers of subprojects and DCOs and PPOs to compliance with the EMP requirements.

B. Social Safeguards Issues:

The key findings for social safeguards for the second mission of year 2015 can be summarized as following:

- **Affected Households**: As reported in the previous report that the 2 AHs Mongchao and 1 AH at Komaen were compensated with the new plots of land with satisfaction of AHs. During the second mission of year 2015, it was confirmed by these 3 AHs that they do not have additional concerns or requests to the project. They are happy with the compensation.

- **Land acquisition and asset loss:** based on the review of FS reports**,** totally about 3750 sqm of agricultural land owned by 9 households and 167 trees owned by 4 households within 3 subprojects of year 3 will be potentially affected. 8 of these 9 AHs loss less than2.7% of their total productive land and only 1 AH would loss more than 10% of his total productive land at Nam Chae subproject. None of these owners are female-headed households. No loss of temporary and permanent structures reportedly will be affected.

  In addition to 2 AHs said in the FS report of Houay MakMue, it was said during the meeting with the village authorities and villagers of Ban Sivilay that there are 3 additional plots of agricultural land owned by 3 households (namely: Mr. Onh, Mr. Yiapaeo and Mr. Phoumtheth) will be affected due to new design. However, the PPO, DCO and consultant confirmed to review and revised the design to avoid such additional impact.

- **GAP Implementation:** It is noted that percentage of female members for WUGs of year 1 and 2 subprojects are more than 30% as required. However, 2 established WUGs of year 3 subprojects are only 22% for Houay Sa II and 25% for Houay Lieng. WUGs of other 6 subprojects of year 3 have not been established.
  It is also noted that female employment of local villagers have been implemented in subprojects e.g. Nam Chae, Houay Sa II, Nam Ngaene TP and Houay MakMue. The payment for these female employees is different from male employees due to the different positions and responsibilities; not possible for equal payment for different positions. However, the same position among the male and female employees should be paid in the same rate in subprojects.

7.2 Recommendation

Based on the information and evidences obtained from the second safeguards monitoring of 2015, the team would recommend following issues to improve the future implementation of the Subprojects; particularly subprojects of year 3:

- **Land acquisition and asset loss:** It is recommended that the PPO and DCO of Nam Chae subproject should review and recheck the land loss more than 10% of 1 AH. To minimize such impact, the subproject should provide some ssistance for the AH.

  It is also recommended that the PPO and DCO of Houay MakMue should recheck and survey the alignment again for sub-canal of MC8 because the current designed alignment will affect the agricultural land of 3 households; which were not included in the FS report. These include the land of Mr. Onh, Mr. Yiapaeo and Mr. Phoumtheth. It was recommended by these 3 owners that the alignment should follow the existing canal instead of new alignment.

- **Voluntary donation of land:** it is recommended that the PPOs and/or DCOs should provide the evidence or letter of donation signed by land owner and local authorities. This

is to prove that these affected pieces of land voluntarily donated and also identifying which are additional affected land or donated land.

- **Employment:** It is recommended that local employment of the local people should be documented e.g. contract document. This is to ensure the proper and fair employment; particularly women. It is also good to have similar or equal payment for the same position in the subprojects.

- **GAP**: It is already compliance with requirement for 18 subprojects of year 1 and 2 with more than 30% of women in the WUG committees of 18 subprojects. However, 2 subprojects of year 2 are only 22% and 25%; which less than 30% as required. It is therefore recommended to increase the number of female member in the committees of these 2 subprojects (Houay Sa II and Houay Lieng). Other remaining 6 subprojects of year 3 should also consider on this concern.

- **General Waste Management**: It is recommended that the PPOs and DCOs of Houay MakMue should supervise the Contractor to pay more attention on better waste management on site; particularly construction waste- regular cleaning of the construction sites is required.

- **Terrestrial and aquatic resources protection**: It is recommended that all workers should be trained or informed of no hunting of wild animal and fishing on sites. The evidences were observed and found at the subprojects of Nam Xang and Houay MakMue.

7.3 Follow up Actions of Monitoring Team

First safeguards monitoring Mission of 2016 will be undertaken at the end of April 2015. The key issues to be monitored and evaluated will be:

- Regular water quality monitoring of 24 subprojects of year 1, 2 and 3 for fundamental parameters.

- Agro-chemical study for subprojects in Bokeo province; which will be carried out by Plant Protection Center; Department of Agriculture, Ministry of Agriculture and Forestry.

- Site Reinstatement/rehabilitation of 8 subprojects.

- Waste management on sites; particularly at Houay MakMue subproject.

- Establishment of WUG committees in 6 subprojects of year 3 and increased percentage of female members in the established WUG committees of 2 subprojects (Houay Sa II and Houay Lieng).

- Site visit of 26 subprojects; particularly site inspection of 8 subprojects of year 3 for EMP, GAP, EDGP and LARC implementation based on the instructions and/or recommendations given during the site visit of second monitoring mission of 2015.

- Updated design of the sub-irrigation canal of MC8 at Houay MakMue subproject and the

- Voluntary donation document
- Documentation of local employment between the Contractor and local employees; particularly women.
- Consultation with potential AHs in subprojects, village authorities, WUGs, DCOs and PPOs.

Annex 1 Water Quality Analysis Result

Annex 2 Agro-chemical Study Report

Annex 3 Minutes of Meeting and Photos of Activities During the Mission

Annex 4 Registration

Annex 1 Water Quality Analysis Result

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Water Analysis report:

Vientiane Capital City
Nam PaPa Nakhonluang
Chinaimo Water Treatment Plant Laboratory
Tel.: 312564 or Mobile 2204693

Sampling Place: NRI

Testing Date: 9-31/01/2016

N.	Description of analysis	Units	N.1	N.2	N.3	N.4	N.5	N.6	N.7	N.8	Surface Water Quality s standard of WREA
	Sampling Name		NH1	NH2	MO1	MO2	D1	D2	MO1	MO2	
1.	Temperature of water	°C	21.3	20.1	23.2	23.5	22.2	23.0	21.5	21.8	N°
2.	pH	-	7.2	7.4	6.2	6.5	7.3	7.2	6.3	6.7	5~9
3.	TDS	mg/l	197	218	183	175	98	102	122	176	
4.	TSS	mg/l	21.5	8.0	6.0	5.0	6.0	7.0	3	2	-
5.	Dissolved Oxygen (DO)	mg/l	5.2	6.4	4.9	5.1	6.2	6.8	5.4	4.9	6.0
6.	(BOD_5)	mg/l	2.23	2.81	0.49	0.58	0.30	0.87	0.42	1.31	1.5
7.	(COD_{Mn})	mg/l	4.55	4.17	6.38	7.21	6.26	6.26	3.98	4.55	
8.	Total coliform group	MPN/ 100ml	>230	>230	>230	>230	>230	>230	>230	>230	5000

Remarks:. # ແຫຼ່ງ ຈັບນ້ຳນະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ຫັ ມີນາດດະຖາ ບັງຄັບໃຊ້.

Chief Chinaimo Laboratory :

Mrs Khonesavanh K

Chief Chinaimo WTP:

ເວີນ ແສງດາລາ

Gengral Manager NPNL:

ວຽງຫວາຍ ວັນນະລາດ

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Water Analysis report:

Vientiane Capital City
Nam PaPa Nakhonluang
Chinaimo Water Treatment Plant Laboratory
Tel.: 312564 or Mobile 2204693

Sampling Place: NRI

Testing Date: 9-31/8/2016

N.	Description of analysis	Units	N.9	N.10	N.11	N.12	N.13	N.14	N.15	N.16	Surface Water Quality s standard of WREA
	Sampling Name		NL1	NL2	NT1	NT2	HX1	HX2	NY1	NY2	
1.	Temperature of water	°C	18.3	18.2	20.4	20.8	21.4	22.1	22.3	22.1	N°
2.	pH	-	7.7	7.9	6.4	7.4	7.7	8	8.1	8.4	5~9
3.	TDS	mg/l	197	183	73	108	316	297	147	131	
4.	TSS	mg/l	20	2	10	20	<2	5.5	32	3	-
5.	Dissolved Oxygen (DO)	mg/l	5.5	6.1	4.6	5.3	6.3	5.9	4.5	5	6.0
6.	(BOD_5)	mg/l	1.65	1.36	1.36	1.27	1.89	2.23	3.04	0.29	1.5
7.	(COD_{Mn})	mg/l	4.74	4.74	6.26	5.69	3.21	5.5	16.96	6.64	
8.	Total coliform group	MPN/ 100ml	>230	>230	>230	>230	>230	>230	>230	>230	5000

Remarks:. # ແຫຼ່ງ ຈັບນ້ຳນະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ຫັ ມີນາດດະຖາ ບັງຄັບໃຊ້.

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Water Analysis report:

Vientiane Capital City
Nam PaPa Nakhonluang
Chinaimo Water Treatment Plant Laboratory
Tel.: 312564 or Mobile 2204693

Sampling Place: NRI

Testing Date: 9-31/01/2016

N.	Description of analysis	Units	N.17	N.18	N.19	N.20	N.21	N.22	N.23	N.24	Surface Water Quality s standard of WREA
	Sampling Name		NGN1	NGN2	NB1	NB2	NS1	NS2	NP1	NP2	
1.	Temperature of water	°C	23.6	23.2	22.2	22.7	22	24.1	19.3	19.5	N°
2.	pH	-	7.9	7.4	7.5	7.9	6.8	7.1	6.3	6.9	5~9
3.	TDS	mg/l	129	154	138	129	182	139	145	175	
4.	TSS	mg/l	11	184	4	6	8.5	9.4	2.5	105	-
5.	Dissolved Oxygen (DO)	mg/l	6.1	6.9	5.2	4.8	6.3	6.4	5.4	4.8	6.0
6.	(BOD_5)	mg/l	1.65	1.2	0.74	0.59	1.51	1.64	1.73	0.93	1.5
7.	(COD_{Mn})	mg/l	7	20.87	6.45	7.21	6.83	6.7	9.11	5.88	
8.	Total coliform group	MPN/ 100ml	>230	>230	>230	>230	>230	>230	>230	>230	5000

Remarks:. # ແຫຼ່ງ ຈັດຫາມະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ທັ ມີນາດຕະຖານ ບັງຄັບໃຊ້.

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Vientiane Capital City
Nam PaPa Nakhonluang
Chinaimo Water Treatment Plant Laboratory
Tel.: 312564 or Mobile 2204693

Sampling Place: NRI

Testing Date: 9-31/01/2016

N.	Description of analysis	Units	N.25	N.26	N.27	N.28	N.29	N.30	N.31	N.32	Surface Water Quality s standard of WREA
	Sampling Name		NNG1	NNG2	NTH1	NTH2	HL 1	HL 2	NSII 1	NSII 2	
1.	Temperature of water	°C	16.4	18.2	19.3	20.1	19.5	20.1	19.8	21	N°
2.	pH	-	7.5	7.2	6.9	6.4	7.3	7.2	6.9	6.7	5~9
3.	TDS	mg/l	187	198	192	212	177	165	96	101	
4.	TSS	mg/l	7	6	20	40	4.5	9	<2	21	-
5.	Dissolved Oxygen (DO)	mg/l	4.5	4.3	6.2	6.8	9.5	4.9	6.3	4.5	6.0
6.	(BOD_5)	mg/l	1.07	1.55	1.56	1.36	2.52	4.27	1.41	2.82	1.5
7.	(COD_{Mn})	mg/l	4.74	10.05	7.02	7.59	4.17	4.93	5.88	3.41	
8.	Total coliform group	MPN/ 100ml	>230	>230	>230	>230	>230	>230	>230	>230	5000

Remarks:. # ແຫຼ່ງ ຈັດຫາມະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ທັ ມີນາດຕະຖານ ບັງຄັບໃຊ້.

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Water Analysis report:

Vientiane Capital City
Nam PaPa Nakhonluang
Chinaimo Water Treatment Plant Laboratory
Tel.: 312564 or Mobile 2204693

Sampling Place: NRI

Testing Date: 9-31/01/2016

N.	Description of analysis	Units	N.33	N.34	N.35	N.36	N.37	N.38	Surface Water Quality s standard of WREA
	Sampling Name		NC 1	NC 1	HM 1	HM 2	NX1	NX2	
1.	Temperature of water	°C	23.6	22.8	21.8	22.1	19.4	18.8	N'
2.	pH	-	8.1	7.7	8.3	7.6	6.3	6.8	5~9
3.	TDS	mg/l	87	98	129	145	156	123	
4.	TSS	mg/l	<2	<2	6	6.3	<2	2	-
5.	Dissolved Oxygen (DO)	mg/l	6.6	6.1	4.1	4.4	5.3	4.8	6.0
6.	(BOD_5)	mg/l	3.79	3.28	1.2	1.3	1.92	0.2	1.5
7.	(COD_{Mn})	mg/l	6.26	4.93	8.54	7.8	5.69	5.69	
8.	Total coliform group	MPN/ 100ml	>230	>230	>230	>230	>230	>230	5000

Remarks:. # ແຫຼ່ງ ຈົ່ມຫ້ຳນະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ທັ ມີມາດຕະຖານ ບັງຄັບໃຊ້.

Chief Chinaimo Laboratory :

Mrs Khonesavanh K

Chief Chinaimo WTP:

General Manager NPNL:

ລັດວິສາຫະກິດ ນ້ຳປະປາລາວ

ວຽງຫວາຍ ວັນນະລາດ

Lao's People Democratic Republic
Peace Indepedence Democracy Unity Properity

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Ministry of Agriculture and Forestry
Department of Agriculture
Plant Protection Center

Attention: The Independent Environmental and Social Safeguards Monitoring Team for Northern Rural Infrastructure Development Project

Subject: Result reporting on the inspection of pesticide residues in agricultural soil, water and crops/plants and the awareness raising on pesticide in two northern provinces (Laoungnamtha and Phongsaly provinces.

- According to the proposal of the Independent Environmental and Social Safeguard Monitoring Team of Northern Rural Infrastructure Development Project (Borkeo, Laoungnamtha and Phongsaly provinces), dated on 05/01/2016
- According to the agreement of committee of Plant Protection Center, dated 07/01/2016.

The Unit of pesiticide and plant analysis would like to report that: we conducted an analysed the pesticide residues in agricultural soil, water and crops/plant and awareness raising about pesticide used within the project areas. The detail is explained as the following.

1. Objective

- To monitor and test for pesticide residues in agricultural soil, water and crops/plants.
- To raise awareness of the farmers on pesticide use.

2. Participants

1. Plant Protection Center, Department of Agriculture
2. The Independent Environmental and Social Safeugards Monitoring Team of the NRI Project
3. Department of Agriculture and Forestry of Luang Namtha province
4. Department of Agriculture and Forestry of Phongsaly Province
5. Department of Natural Resource and Environment of Luang Namtha province
6. Department of Natural Resource and Environment of Phongsaly Province
7. Agriculture and Forestry Office of Sing district
8. Agriculture and Forestry Office of Long district
9. Agriculture and Forestry Office of Bounthai district

10. Natural Resource and Environment Office of Sing district
11. Natural Resource and Environment Office of Long district
12. Natural Resource and Environment Office of Bounthai district
13. Farmers of Na Mai village, Sing district, Luang Namtha Province
14. Farmers of Na Kham village, Sing district, Luang Namtha Province
15. Farmers of Yangphieng village, Sing district, Luang Namtha Province
16. Farmers of Nam Bak village, Long district, Luang Namtha Province t
17. Farmers of Sivilay village, Long district, Luang Namtha Province
18. Farmers of Nawai village, Bounthai district, Phongsaly province
19. Farmer of Namark village, Boundthai district, Phongsaly province

3. Testing areas

1. Na Mai, Namkham, Sivilay and Yangphieng villages, Sing district Luang Namtha province.
2. That, Nam Bak, Nawai, Chakhamping and Sivilay villages, Long district, Luang Namtha province.
3. Nawai and Namark villages, Bounthai district, Phongsaly province.

4. Schedule

From 07/01/2016-12/01/2016

5. workplan of Activities

Date	Activities	Location	Subproject
07/01/2016	Travelling to Luang Namtha province	Sing district, Luang Namtha province	
08/01/2016	Testing for pesticide residues in agricultural soil, water and crops/plants and raising awareness on pesticide to the farmers	Na Mai, Na Kham and Yangphieng villages, Sing district, Luang Namtha province	Nam Gna6-Houay Luang and Nam Gna IV&V subprojects
09/01/2016	Testing for pesticide residues in agricultural soil, water and crops/plants and raising awareness on pesticide to the farmers	That, Nam Bak, Chakhamping and Sivilay villages, Long district, Luang Namtha province	Nam Ma-Oun, Nam Bak and Houay MakMue subprojects
11/01/2016	Travelling to Phongsaly province	Bounthai district, Phongsaly province	Nam Lan subproject
12/01/2016	Testing for pesticide residues in agricultural soil, water and crops/plants and raising awareness on pesticide to the farmers	Nawai and Namark villages, Bounthai district, Phongsaly province	Nam Lan and Nam Ngene (Namark) subprojects

6. Tools and materials

6.1 Raising awareness on pesticide to farmers

1. Relevant documents
2. LCD
3. Others

6.2 Testing on pesticide residues in agricultural soil, water and crops/plants

1. Reagents for GT test kits
2. GT test kits
3. Protecting gears
4. Others

7. Methods

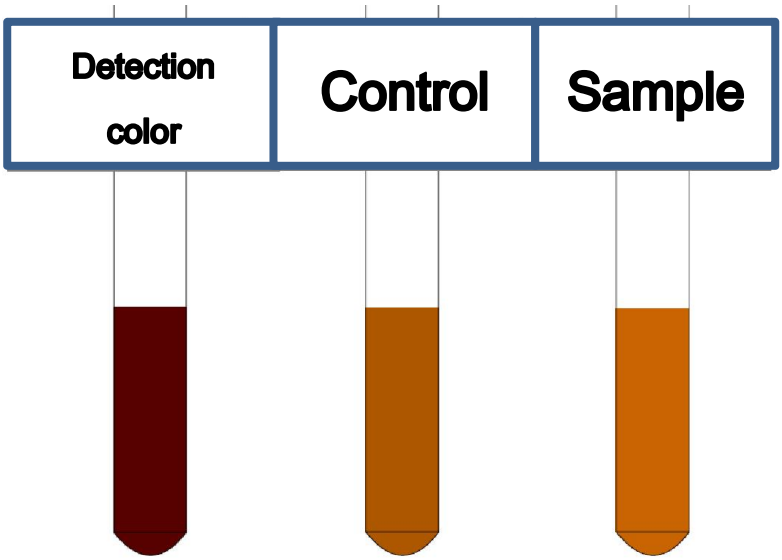
7.1 Raising awareness on pesticide to farmers

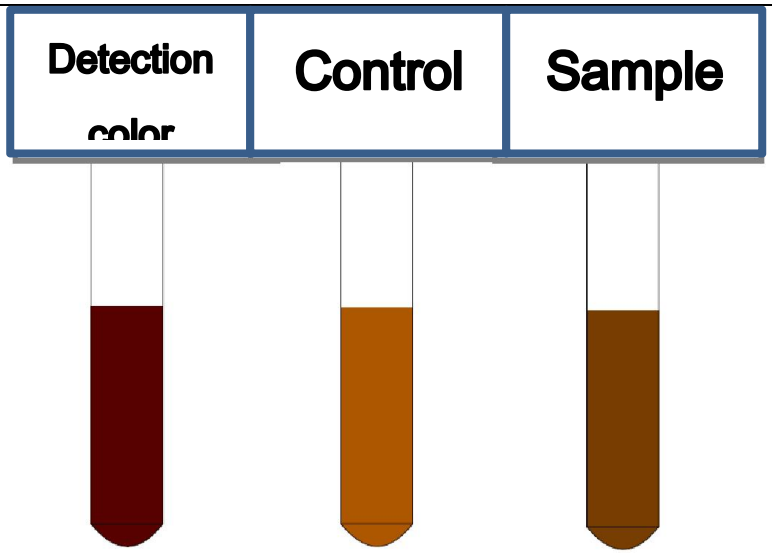
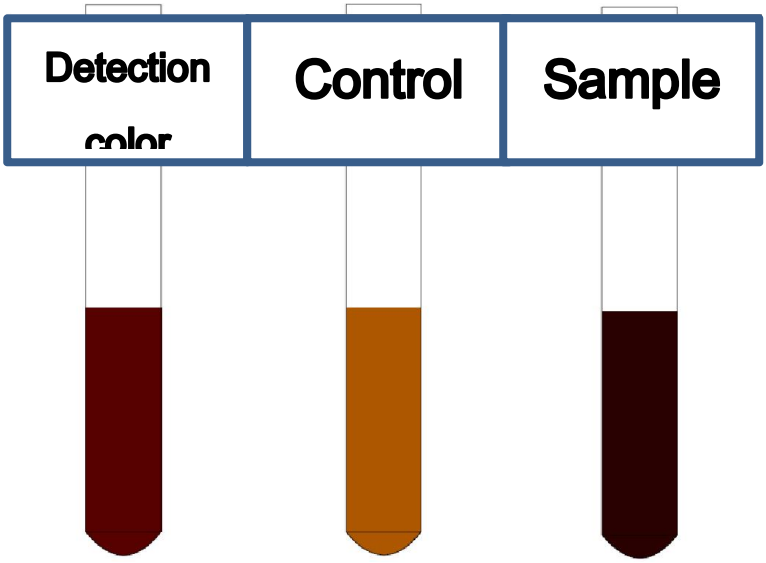
- Coordinating and gathering the head of the villages and villagers from the target villages with the involvement of PPOs, DCOs, PONREs and DONREs.
- Introducing knowledge about pesticide using and its effects to the farmers
- Having discussing sessions

7.2 Testing for pesticide residues in agricultural soil, water and crops/plants

- Collecting agricultural soil, water and crops/plants samples for testing for pesticide residues
- Testing for pesticide residue in agricultural soil, water and crops/plants (GT test kits are used for the test which can detect 2 pesticide groups, organophosphate and carbamate)

- Reading results from GT test kits

Color comparision	Detection level
1. The color in the sample test tube is lighter or similar to that of the control test tube.	 No pesticide residue in the sample (0%)
2. The color in the sample test tube shows darker color than that of the control.	

	 Low concentration of pesticide residue found in the sample (within safty limit) (<50%)
3. The color in the sampe test tube is as dark as or darker than that of the control test tube.	 High concentration of pesticide residue is found in the sample test tube (Over safty limit) (≥50%)

- Reporting on the results of the test on pesticide residue in agricultural soil, water and crops/plants.

8. Results

8.1 Raising awareness on pesticide to farmers

This raising awareness on pesticide to farmers includes 258 people. There are 7 villages (Yangphieng, Nam Kham, Na Mai, Sivilay, Nam Bak, Nawai and Namark villages), 3 districts (Sing, Long and Bounthai districts) in two provinces (Luang Namtha and Phongsaly provinces).

The contents of the activities include the meaning of pesticide, pest groups, pest species, the impacts from pest, prevention and pest clearing principles, pest prevention techniques, pesticide use techniques, pesticide buying techniques, pesticide label reading techniques, pesticide fate, degrading process of pesticide, impacts of pesticide

use, pesticide use impact preventing knowhow, protective gears, the 10 important step information suggested when using pesticide (attached in appendix).

Table 1: Showing the number of participants in raising awareness activities

No	Village	Subproject	District	Province	Number
1	Yangphieng	Nam Dai IV&V	Sing district	Luang Namtha	22
2	Na Kham	Nam Gna (IV&V)			50
3	Na Mai	Nam Gna6-Houay Luang			26
4	Sivilay	Houay MakMue	Long district		27
5	Nam Bak	Nam Bak			50
6	Nawai	Nam Lan	Bounthai district	Phongsaly	50
7	Namark	Nam Ngene (Namark)			78
Total					258

Note: The name list is attached

8.2 Testing for pesticide residue in agricultural soil, water and crops/plants.

There are in total of 41 samples including 18, 5 and 18 samples for agricultural soil, water and crops/plants, respectively, from 9 villages (Namai, Silimon, Na Kham, That, Nam Bak, Houay Mor, Chakhamping, Nawai and Namark villages) in 3 districts (Sing, Long and Bounthai districts) of the 2 provinces (Luang Namtha and Phongsaly provinces). The results are explained as the following:

The presticide residue in 8 agricultural soil samples (44.44%) are not found while 7 (38.89%) of them are found to be contaminated with the pesticide even thought its concentration is within the safety limit (<50%). The 3 (16.67%) samples are detected with high concentration of pesticide residue, meaning that such concentration is not scientifically within the safety limit (≥50%). The detail can be found in table 2.

The presticide residue in 5 agricultural water samples (100%) are not found. The detail can be found in table 3.

The presticide residue in 7 crops/plants samples (38.89%) are not found while 7 (38.89%) of them are found to be contaminated with the pesticide even thought its concentration is within the safety limit (<50%). The 4 (22.22%) samples are detected with high concentration of pesticide residue, meaning that such concentration is not scientifically within the safety limit (≥50%). The detail can be found in table 4.

When all results of 41 samples are combined, it is found that the presticide residue in 20 samples (48.78%) are not found while 14 (34.15%) of them are found to be contaminated with the pesticide even thought its concentration is within the safety limit (<50%). The 7 (17.07%) samples are detected with high concentration of pesticide residue, meaning that such concentration is not scientifically within the safety limit (≥50%). The detail can be found in table 5.

Table 2: results of soil testing

NO	Sample name	Village	Subproject	District	Province	No Detection	within safty limit	over safty limit
1	Soil (Site 1) (Banana Plantation area)	Na Mai	Nam Gna 6-Houay Luang	Sing	Lung Namtha	✓		
2	Soil (Site) (Banana Plantation area)	Na Mai	Nam Gna 6-Houay Luang	Sing	Lung Namtha	✓		
3	Soil (Banana Plantation area)	Silimon	Nam Gna IV&V	Sing	Lung Namtha			✓
4	Soil (Pumpkin Plantation area)	Silimon	Nam Gna IV&V	Sing	Lung Namtha	✓		
5	Soil (Banana Plantation area)	Na Kham	Nam Gna IV&V	Sing	Lung Namtha		✓	
6	Soil (Banana Plantation area)	That	Nam Ma-Oun	Long	Lung Namtha			✓
7	Soil (Ginger Plantation area)	Nam Bak	Nam Bak	Long	Lung Namtha		✓	
8	Soil (Banana Plantation area)	Nam Bak	Nam Bak	Long	Lung Namtha			✓
9	Soil (Banana Plantation area)	Houay Mor	Houay MakMue	Long	Lung Namtha	✓		
10	Soil (Banana Plantation area)	Chakhamping	Haouay MakMue	Long	Lung Namtha	✓		
11	Soil (site 1) (Pea Plantation area)	Nawai	Nam Lan	Bounthai	Phongsaly		✓	
12	Soil (site 2) (Pea Plantation area)	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
13	Soil (site 3) (Pea Plantation area)	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
14	Soil (site 4) (Pea Plantation area)	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
15	Soil (site 1) (Pumpkin Plantation area)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
16	Soil (site 2) (Pumpkin Plantation area)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	

17	Soil (site 1) (Pea Plantation area)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
18	Soil (site 2) (Pea Plantation area)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
	Total (samples)					**8**	**7**	**3**
	Percentage (%)					**44.44**	**38.89**	**16.67**

Table 3: Showing results of water testing

NO	Sample name	Village	Subproject	District	Province	No Detection	within safty limit	over safty limit
1	Nam Houay River (Houay Louang river bank site 1)	Na Mai	Nam Gna 6-Houay Luang	Sing	Luang Namtha	✓		
2	Nam Houay River (Houay Louang river bank site 2)	Na Mai	Nam Gna 6-Houay Luang	Sing	Luang Namtha	✓		
3	Nam Houay River (Houay Louang river middle site)	Na Mai	Nam Gna 6-Houay Luang	Sing	Luang Namtha	✓		
4	Nam Houay River (Houay Ya Neua village site)	Na Kham	Nam Gna IV&V	Sing	Luang Namtha	✓		
5	Nam Houay River (Houay Pa Sarng river)	That	Nam Ma-Oun	Long	Luang Namtha	✓		
	Total (samples)					**5**	**0**	**0**
	Percentage (%)					**100**	**0**	**0**

Table 4: Showing results of crops/plants testing

NO	Sample name	Village	Subproject	District	Province	No Detection	within safty limit	over safty limit
1	Coriander	Na Mai	Nam Gna 6-Houay Luang	Sing	Luang Namtha	✓		
2	Fern	Na Mai	Nam Gna 6-Houay Luang	Sing	Luang Namtha	✓		
3	Musa *sapientum* (Banana) (Kouay Nam)	Na Mai	Nam Gna 6-Houay Luang	Sing	Luang Namtha	✓		
4	Did Darm	Silimon	Nam Gna IV&V	Sing	Luang Namtha		✓	
5	Indian Mustard	Silimon		Sing	Luang Namtha		✓	
6	Musa *sapientum* (Banana) (Kouay Nam) (Taken in Chinese plantation area)	That	Nam Ma-Oun	Long	Luang Namtha			✓
7	Ginger (Taken in old banana plantation area)	Nam Bak	Nam Bak	Long	Luang Namtha			✓
8	Chinese mustard	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
9	Pea (site 1)	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
10	Pea (site 2)	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
11	Pea (site 3)	Nawai	Nam Lan	Bounthai	Phongsaly		✓	
12	Freeze pea	Nawai	Nam Lan	Bounthai	Phongsaly	✓		
13	(Pea (site 1)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
14	Pea (site 2)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
15	Chinese flower cabbage (site 1)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
16	Chinese flower cabbage (site 2)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly		✓	
17	Spring onion (site 1)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly			✓
18	Spring onion (site 2)	Namark	Nam Ngene (Namark)	Bounthai	Phongsaly			✓
	Total (samples)					**7**	**7**	**4**
	Percentage (%)					**38.89**	**38.89**	**22.22**

Table 5: Showing results of the testing of all samples from agricultural soil, water and crops/plants

NO	Sample name	Village	District	Province	No Detection	Detection within safty limit	Detection with over safty limit
1	Soil (Site 1) (Banana Plantation area)	Na Mai	Sing	Luang Namtha	✓		
2	Soil (Site) (Banana Plantation area)	Na Mai	Sing	Luang Namtha	✓		
3	Soil (Banana Plantation area)	Silimon	Sing	Luang Namtha			✓
4	Soil (Pumpkin Plantation area)	Silimon	Sing	Luang Namtha	✓		
5	Soil (Banana Plantation area)	Na Kham	Sing	Luang Namtha		✓	
6	Soil (Banana Plantation area)	That	Long	Luang Namtha			✓
7	Soil (Ginger Plantation area)	Nam Bak	Long	Luang Namtha		✓	
8	Soil (Banana Plantation area)	Nam Bak	Long	Luang Namtha			✓
9	Soil (Banana Plantation area)	Houay Mor	Long	Loungnamtha	✓		
10	Soil (Banana Plantation area)	Chakhamping	Long	Loungnamtha	✓		
11	Soil (site 1) (Pea Plantation area)	Nawai	Bounthai	Phongsaly		✓	
12	Soil (site 2) (Pea Plantation area)	Nawai	Bounthai	Phongsaly	✓		
13	Soil (site 3) (Pea Plantation area)	Nawai	Bounthai	Phongsaly	✓		
14	Soil (site 4) (Pea Plantation area)	Nawai	Bounthai	Phongsaly	✓		

15	Soil (site 1) (Pumpkin Plantation area)	Namark	Bounthai	Phongsaly		✓	
16	Soil (site 2) (Pumpkin Plantation area)	Namark	Bounthai	Phongsaly		✓	
17	Soil (site 1) (Pea Plantation area)	Namark	Bounthai	Phongsaly		✓	
18	Soil (site 2) (Pea Plantation area)	Namark	Bounthai	Phongsaly		✓	
19	Nam Houay River (Houay Louang river bank site 1)	Na Mai	Sing	Luang Namtha	✓		
20	Nam Houay River (Houay Louang river bank site 2)	Na Mai	Sing	Luang Namtha	✓		
21	Nam Houay River (Houay Louang river middle site)	Na Mai	Sing	Luang Namtha	✓		
22	Nam Houay River (Houay Ya Neua village site)	Na Kham	Sing	Luang Namtha	✓		
23	Nam Houay River (Houay Pa Sarng river)	That	Long	Luang Namtha	✓		
24	Coriander	Na Mai	Sing	Luang Namtha	✓		
25	Fern	Na Mai	Sing	Luang Namtha	✓		
26	Musa *sapientum* (Banana) (Kouay Nam)	Na Mai	Sing	Luang Namtha	✓		
27	Did Darm	Silimon	Sing	Luang Namtha		✓	
28	ຜັກກາດຂົ້ວ Indian Mustard	Silimon	Sing	Luang Namtha		✓	
29	Musa *sapientum* (Banana) (Kouay Nam)	That	Long	Luang Namtha			✓

	(Taken in Chinese plantation area)						
30	Ginger (Taken in former Chinese plantation area)	Nam Bak	Long	Luang Namtha			✓
31	Chinese mustard	Nawai	Bounthai	Phongsaly	✓		
32	Pea (site 1)	Nawai	Bounthai	Phongsaly	✓		
33	Pea (site 2)	Nawai	Bounthai	Phongsaly	✓		
34	Pea (site 3)	Nawai	Bounthai	Phongsaly		✓	
35	Freeze pea	Nawai	Bounthai	Phongsaly	✓		
36	Pea (site 1)	Namark	Bounthai	Phongsaly		✓	
37	Pea (site 2)	Namark	Bounthai	Phongsaly		✓	
38	Chinese flower cabbage (site 1)	Namark	Bounthai	Phongsaly		✓	
39	Chinese flower cabbage (site 2)	Namark	Bounthai	Phongsaly		✓	
40	Spring onion (site 1)	Namark	Bounthai	Phongsaly			✓
41	Spring onion (site 2)	Namark	Bounthai	Phongsaly			✓
Total (samples)					**20**	**14**	**7**
Percentage (%)					**48.78**	**34.15**	**17.07**

9. Recommendation to the villagers in the communities for minimizing presticide reduce

9.1 Wash the pesticide off from vegetables and fruits with water several times before cooking.

9.2 Vegatables and fruits with skins which can be peel off are supposed to be washed with waster before being peeled.

9.3 Vegetables boiling in water and draining before eating could help reduce the concentration of such.

9.4 Use pesticide only when really needed.

9.5 Empty pesticide containers must not be reused fro food or water containing.

9.6 Pesticide is toxic and it must be stored in a specific safety place and kept away from food supply and children.

9.7 Like consumers, the crops/plantsr will have to take extra carefull when using pesticide by ensuring what types to be correctly use to the its purposes, the right quantity to use and when to use before harvesting and supplying.

9.8 Concerning of short or long term impacts on human and environment when using pesticide must be seriously taken by comparing its benefits and impacts in return because chemicals used in pesticide can be completely self degraded while other might be but take a while or even persistant but seep in crops/plants or soil. It is, therefore, highly recommended that the user should fully understand the nature of such chemicals and its potential impacts and how to avoid such impacts by possibly follow attentively the instruction on the labels.

Therefore, this is reported for your information.

Sincerely yours,

Vientiane Capital, date:……

Division of Pesticide and Crops/plants Analysis

Reporter

Annex 3 Minutes of Meeting and Photos of Activities During the Mission

Summary of Independent Safeguards Monitoring	
1. Name of Reporter: Kanya Souksakoun; Environment Specialist	
2. Field work Team members	
• Mr. Souphab Koungvichit	Safeguards Team Leader
• Mr. Kanya Souksakoun	Environment Specialist
• Mrs. Ampai Darasouk	Resettlement and Social Specialist

3. Purpose of the Field Work:

Objectives

The main objectives of second safeguards monitoring of 2015 are to:

1. Visit and observe the progress of each subproject implementation for the environment and social in accordance with ADB policy of 26 subprojects of year 1,2 and 3;
2. Conduct ground truth of spatial change impact and progress of subproject implementations in terms of environmental compliance, compensation, resettlement;
3. Take photos for evidence of the occurrence and progress;
4. Conduct water sampling and testing;
5. Pesticide and chemical fertilizer contamination study for soil, water and plants;
6. Identify any potential significant land/asset/ cultural impacts
7. Meet with PPO, DCO, village authorities, WUGs and villagers to discuss on the progress of safeguards implementation;
8. Check the actions carried out by the Contractors, PPOs and DCOs based on the comments given during the first missions of 2015.

Methodology

- Conducting filed observation to identify key issues and remediation which have been taken place within the Subprojects with the checklists;
- Meeting with construction contractor representatives to discuss EMP implementation;
- Collecting soil, water and plants samples for pesticide contamination testing;
- Water sampling and testing for field parameters and sample delivery to the lab for analysis;
- Presentation of agro-chemical use impacts and prevention for communities;
- Biodiversity observation (e.g. vegetation disturbance, aquatic environment, etc.);
- Physical environmental observation (Hydrology, erosion, air emission, etc.);
- Consultations and meeting with stakeholders, Group discussion and Interview with some AHs;
- Meeting with PPO, DCO and village authorities to hear the progress of subprojects' activities and implementation of EMP, RAP, GAP and EDGP;
- Feedback and proposed mitigations to the senior management of PPOs and their solutions on raised issues.

Participants

The participants were composed of the technical staff of PPOs, DCOs, DONREs and PONREs.
The participants from the village's authority (including Village heads, and Lao Women's Union and water use group member) in 26 subprojects: Total participants of 497 attended during the field visit, among which approximately 152 are female participants or 30.5%.

Table of Participants from village level

Province	Total No. Participants	Male
Phongsaly	95	11
Luang Numtha	253	91
Bokeo	149	50
Toal	**497**	**152**

Table Participants from PCO & DCO

Province	PPO	DCO	Female
Phongsaly	3	8	3
Luang Numtha	3	8	4
Bokeo	3	9	4
Toal	9	25	15

4. Detailed Activities (including Venue and Participants)

3 Jan 2016:

Meeting with PPO and DCO of Bokeo Province

- Overview on the purpose of second safeguards monitoring mission of year 2015 and activities to be undertaken in Bokeo Province;
- Discuss on the progress of the construction works of subprojects in Phongsaly province;
- The progress of EMP, GAP and EGDP implementation of first mission of 2015
- Discussion on the communities development programs in subprojects; and
- Water and soil quality monitoring.

Meeting with PPO, DCO, Village Authorities and villagers

The meeting was taken place in Sibounheuang villages; Phaoudom district

- Overview of the second safeguards monitoring, objective and team introduction;
- Discussion on the construction activities and potential impacts as well as mitigation measures;
- EMP, RAP, EDGP and GAP implemented by PPO and DCO;
- Discussion on the concerns of villagers; and
- It was confirmed in the meeting that no environmental and social issues raised.

Meeting with PPO and DCO and villagers at Sibounheang; 4 Jan 2016

Meeting with PPO and DCO and villagers at Sibounheang; 4 Jan 2016

Site visit at Houay Lieng subproject with PPO, DCO and site engineer; 4 Jan 2016

5 Jan 2016

Meeting with PPO, DCO and Villagers of Haadsa village of Paktha district

- Overview of the second safeguards monitoring of 2015, objective and team introduction;
- Discussion on the issues related to the construction activities for the subproject;
- Progress of EMP, EDGP and GAP implementation for the subproject;
- The village authority and WUGs briefed on the subproject activities and it is confirmed that no any concerns raised by the villagers;
- It is requested that removal of material from the rice paddy is required upon the completion of the construction work;
- People in the village are very happy with the implementation of the project and the progress of the work.

	
Meeting with PPO, DCO and villagers at Haadsa village; dated 5 Jan 2016	Site visit at the construction site with PPO, DCO and village authority at Houay Sa II subproject; dated 5 Jan 2016

6-7 Jan 2016:

Meeting with PPO, DCO and villagers at Nam Smork village; Houayxai district

The discussion during the meeting are outlined in the followings:

- overview of the second safeguards Monitoring Mission of 2015, objective and team introduction;
- Discussion on the progress of the construction works of Nam Chae;
- Progress of EMP, GAP, LARC and EDGP implementation;
- It was told that so far no concerns/complaints raised by the villagers of 2 villages. The land loss of AHs were voluntarily donated owners;
- No formal complaints letters received by the district and provincial committees from subproject regarding social and environmental concerns.

  Meeting with PPO for feedback
- Upon the completion of the mission in Bokeo Province, the team met with PPO management level and representative of PONRE to give the feedbacks and suggestions concerning the key finds during the mission. The recommended issues are followings:

- Evidence of voluntary donation of land loss signed by the PPO/DCO;
- Rehabilitation of construction site is strongly recommended to ensure no spoil left on the rice paddy field of villagers and minimizing the erosion and sediment transport;
- Maintain good waste management on site;
- Proper documentation of local employment and fair payment;
- More participation of women in the WUG committee; and
- IEE certificates from PONRE.

		
Meeting with PPO, DCO and villagers at Nam Smork village; 6 Jan 2016	Site visit at the construction site with PPO, DCO and village authority at Nam Chae subproject; 6 Jan 2016	Feedback with PPO, DCO and PONRE after monitoring mission in Bokeo;6 Jan 2016

<u>8 Jan 2016:</u>

<u>Meeting PPO, DCO and villagers of villages at Nam Ngaene village</u>

The discussion during the meeting are outlined in the followings:

- Overview of the second safeguards monitoring of 2015, objective and team introduction;
- The monitoring team asked questions related to the construction activities and environmental and social impacts from Nam Ngaene TP subproject to the villagers;
- The village chief briefed on the project activities and the concerns from villagers raised;
- It was reported that the farmers are concerns about the water use conflict; and
- No other concerns raised by villagers.

	
Meeting with PPO, DCO and villagers at Nam Ngaene village; dated 8 Jan 2016	Site visit at Nam Ngaene TP subproject; dated 8 Jan 2016

9 Jan 2016:

Meeting with PPO, DCO DONRE, PONRE and villagers at Ban Nakham for Nam Gna6-Houay Luang subproject:

The discussion during the meeting are outlined in the followings:

- overview of the second safeguards monitoring mission of 2015, objective and team introduction;
- Discussion on the implementation of EMP, EDGP and GAP implementation;
- Presentation of agro-chemical use impact and mitigation;
- Demonstration of soil, water and plant testing;
- In general the communities still maintain strong support for the project and no any severe complaints received by the village authorities**.**

Meeting with PPO, DCO DONRE, PONRE and villagers at Ban Namai for Nam Gna(VI)&(V) subproject:

The discussion during the meeting are outlined in the followings:

- Overview of the second safeguards monitoring mission, objective and team introduction;
- Discussion on the implementation of EMP, LARC, EDGP and GAP;
- Potential impacts from construction activities to the villagers and surrounding environment;
- Presentation of agro-chemical use impact and mitigation;
- Demonstration of soil, water and plant testing;
- In general the communities still maintain strong support for the project and no any severe complaints received by the village authorities.
-
- The Community development programs in villages mainly on dry season crops cultivation have been well implemented;
- It was reported that the pilot contract farming system was practiced with supported from PPO and DCO
- It was told that so far no concerns/complaints raised by the villagers for both Nam Lan . However, the concern was raised for Nam Ngaen regarding the poor waste management at work camp;
- No formal complaints letters received by the district and provincial committees from 2 Subprojects regarding social and environmental concerns;

		
Meeting with PPO, DCO and villagers at Nakham village; 9 Jan 206	Demonstration of agro-chemical contamination testing; 9 Jan 2016	Meeting with PPO, DCO and villagers at Namai village; 9 Jan 206

10-11 Jan 2016:

Meeting with PPO, DCO, PONRE, DONRE, villagers at Nam Bak village-Nam Bak subproject:

The discussion during the meeting are outlined in the followings:

- Overview and introduction of the second safeguards monitoring of 2015, objective and team introduction;
- Discussion on the implementation of EMP, LARC, EDGP and GAP;
- Water use concern;
- Presentation of agro-chemical use impact and prevention;
- Demonstration of soil, water and plant testing;
- It is requested by the villagers to rehabilitate the scheme; which damage by flood.

Meeting with PPO, DCO, PONRE, DONRE, villagers at Sivilay village-Houay MakMue subproject:

The discussion during the meeting are outlined in the followings:

- Overview and introduction of the second safeguards monitoring of 2015, objective, and team introduction
- Discussion on the implementation of EMP, LARC, EDGP and GAP;
- Potential impacts from construction activities to the villagers and surrounding environment;
- Presentation of agro-chemical use impact and prevention;
- Demonstration of soil, water and plant testing;

It is raised by the villagers during the meeting that there are 3 additional affected households due to change of the irrigation alignment;
No any other complaints or concerns to the subproject activities raised by villagers.

Meeting with PPO and PONRE for feedback:

Upon the completion of the mission in Luang Namtha province, the team met with PPO management level and representative of PONRE to give the feedbacks and suggestions concerning the key findings during the mission. The recommended issues are followings:

- Evidence of voluntary donation of land loss signed by the PPO/DCO;
- Proper documentation of local employment and fair payment;
- And waste management for Houay MaKMue subproject;
- Review of design for Houay MakMue; sub-canal of MC8 to avoid the impact to 3 more households;
- Discussion o the result of soil, water and plant testing result;
- Rehabilitation of construction site is strongly recommend to ensure no spoil left on the rice paddy field of villagers and minimizing the erosion and sediment transport; and
- Instruction to the workers at Houay MakMue for no wild animal hunting.

		
Meeting with PPO, DCO and villagers at Nam Bak village; 10 Jan 206	Meeting with PPO, DCO and villagers at Sivilay village; 10 Jan 2016	Feedback for the PPO and PONRE at PPO office; 11 Jan 2016

<u>12 Jan 2016:</u>

<u>Meeting with PPO, DCO, DONRE, PONRE and villagers at Ban Nawai for Hongkong subproject.</u>

The discussion during the meeting are outlined in the followings:

- Overview of the second safeguards monitoring mission, objective and team introduction;
- Discussion on water use from Nam Lan and Nam Ngene subprojects of year 1 and 2;
- Presentation of pesticide and chemical fertilizer use impact and prevention;
- Demonstration of soil, water and plant testing;
- No other concerns/complaints raised by the villagers of Nawai.

<u>Meeting with PPO, DCO, DONRE, PONRE and village authorities at Ban Namark for Nam Ngene Namark subproject.</u>

- Overview of the second safeguards monitoring mission, objective and team introduction;
- Discussion on implementation of EMP, LARC, EDGP and GAP;
- Potential impacts from construction activities to the villagers and surrounding environment;
- Presentation of agro-chemical use impact and prevention;
- Demonstration of soil, water and plant testing;
- It is confirmed by the villagers that there is no concern on social and environmental issues from construction activities;
- No any complaints or concerns to the subproject activities raised by villagers

		
Meeting with PPO, DCO and villagers at Namark village; 12 Jan 206	Meeting with PPO, DCO and villagers at Nawai village; 12 Jan 2016	Site visit at Nam Ngene (Namark) subproject ; 12 Jan 2016

13 Jan 2015:

Meeting with PPO, DCO, PONRE, DONRE and villagers at Dong Gneng village; Nhot Ou district

- Overview of the second safeguards monitoring mission, objective and team introduction;
- Discussion on the potential impacts from construction activities of Nam Xang subprojects and operation nam Thae subproject;
- Progress of EMP, LARC, EDGP and GAP implementation;
- Discussion on water use for Nam Thae subproject;
- It is confirmed by the villagers that there is no concerns on social and environmental issues from construction activities.

	
Meeting with PPO, DCO and villagers at Don Gneng village; 13 Jan 206	Site visit at Nam Xang subproject; 13 Jan 2016

14 Jan 2015:

Meeting with PPO, DCO, DONRE and PONRE and villagers at Mongchao and komaen villages.

- Discussion with the village authorities and 3 AHs from Mongchao and Komaen villages regarding the compensation;
- It was confirmed by the AHs that they are happy with the compensation with the new land and no more additional request from the Project.

Meeting with PPO and PONRE for feedback:

Upon the completion of the mission in Phongsaly province, the team met with PPO management level and representative of PONRE to give the feedbacks and suggestions concerning the key findings during the mission. The recommended issues are followings:

- Maintain good waste management on sites;
- Wild animal hunting prohibition; particularly for Nam Xang subproject;
- Spoil management on construction site;
- Permission from land owner prior taking material of contractor along the Nam Xang river;
- Rehabilitation of construction site is strongly recommended to ensure no spoil left on the rice paddy field of villagers and minimizing the erosion and sediment transport;
- IEE certificates from PONRE.

	
Meeting with PPO, DCO and villagers at Mongchao village; dated 14 Jan 2016	Meeting for feedback with PPO, DCO, PONRE and DONRE in Phongsaly district; dated 14 Jan 2016

5. Achievements

1. Completed second monitoring and site visit 26 subprojects in 9 districts of 3 provinces for observation;
2. Public consultation with villagers and village authorities;
3. The field trip was well supported by PPO, PONRE, DCO and DONRE from each provinces, districts and villages authorities;
4. The team was well supported with good answers, document and well organized for the consultations, meetings in all villages and site visits in transparent way;
5. Meetings with PPOs, DCOs, PONREs, DONREs, village authorities, WUGs, AHs as well as villagers in subprojects;
6. Completed water sampling and testing in subprojects in districts of 3 Provinces;
7. Soil, water and crop/plant sampling and testing for agro-chemical analysis in 6 subprojects;
8. Provision of feedback to the PPOs at the end of mission in each province to follow up for further improvement and actions.

Annex 4 Registration

Lao People's Democratic Republic
MINISTRY OF AGRICULTURE AND FORESTRY
DEPARTMENT OF PLANNING

NORTHERN RURAL INFRASTRUCTURE DEVELOPMENT SECTOR
PROJECT ADB Grant NO. 0235-LAO (SF)

Unit 7, Ne Rhu Road, Ban Phonexay, Xaysettha District, Vientiane Capital,
Lao PDR Telefax: +856 21 990 249 Email: npmo.nri@gmail.com

ຫົວຂໍ້: ກອງປະຊຸມ ປຶກສາຫາລືກ່ຽວກັບ ແຜນການ - ງົບປະມານ.

ໂຄງການຍ່ອຍ: ປ 1, 2, 3 ..... ສະຖານທີ່: ຫ້ອງປະຊຸມ ..... ເມືອງ: ຫຼວງພະບາງ ..... ແຂວງ: ຫຼວງພະບາງ ..... ຄັ້ງວັນທີ: 12.1.2016.

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາເຊັນ (√) ຫຼື ຂຽນຊື່ເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່�อยู่ສຳລັບການຕິດຕໍ່ພົວພັນ
					ຊົນເຜົ່າຕາມໝວດພາສາລາວ-ໄຕ	ຊົນເຜົ່າຕາມໝວດພາສາມົ້ງ-ອີເລີນຽນ	ຊົນເຜົ່າຕາມໝວດພາສາມອນ-ຂະແມ	ຊົນເຜົ່າຕາມໝວດພາສາຈີນ-ທິເບດ	
1	ທ. ພາສິດ ສັນທະສ	ຊ	ຊຽວກວດ	NRI 11201			✓		98101971
2	ທ. ຄຸນວຸດ ສຸລິຍະ	—	ວິຊາການ	NRI/DCO	✓				020 28160592
3	ທ. ຄຳສະຫວັນ ພະນະເພດ	—	ຫົວໜ້າ ສວນ	NRI/DCO	✓				020 22845733
4	ນ. ນາມ ສຸວິລັດ	ຍິງ	ວິຊາການ	ພຊຂ				✓	54478887
5	ທ. ກນິດາ ສາກະເດ	ຊາຍ	ວິຊາການ	FES				✓	22333328
6	ນ. ອ່ຳໄພ ດ່ວງ ສຸດາ	ຍິງ	—	—	✓				22326830
7	ນ. ອຸ່ນເຮືອນ ທະລາ.	—	ປກ.	ຄັ້ນ ຄອ ແຍ	✓				22934250.
8	ທ. ບຸນ ວິໄລ ດວງ	ຊ	ເຄຊ ຄຸ	ນ.ບ.ອ	✓				22933882
9	ຄຳ ຫຼ້ງ.	—		ຄ/ຂ	✓				22934564

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາຕີກ (√) ຫຼື ຂຽນຊື່ເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ພົວພັນ
					ຊົນເຜົ່າຕາມໝວດພາສາລາວ-ໄຕ	ຊົນເຜົ່າຕາມໝວດພາສາມົ້ງ-ອິວມຽນ	ຊົນເຜົ່າຕາມໝວດພາສາມອນ-ຂະແມ	ຊົນເຜົ່າຕາມໝວດພາສາຈີນ-ຕິເບດ	
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	ຄຳ[illegible]	ຊ		ຂມ.ໆ					54038045
	[illegible]	-ຊ-		ຂມ.ໆ					
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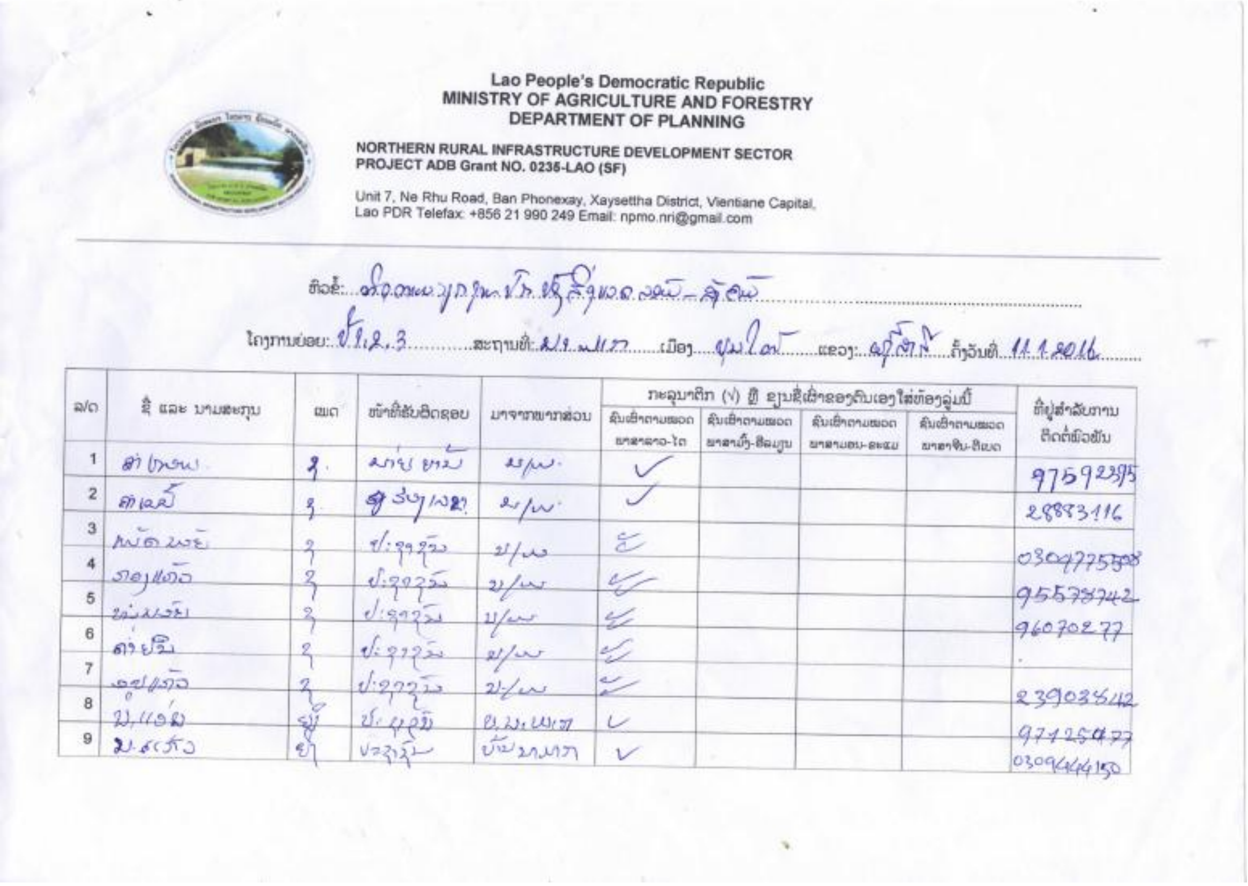
	ຮີ.ທອງ[illegible]	ຊ.	ເລຂາພັກ[illegible]	ຊ/ສ.					9712344

ຢັ້ງຢືນຈາກ

ນາຍບ້ານ ບ້ານ ອູ່ເໜືອ ເມືອງຍອດອູ

ຄຸມແສງ ພູມປັນຍາ
Koumseng PHOUMPANYA



Lao People's Democratic Republic
MINISTRY OF AGRICULTURE AND FORESTRY
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NORTHERN RURAL INFRASTRUCTURE DEVELOPMENT SECTOR
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Lao PDR Telefax: +856 21 990 249 Email: npmo.nri@gmail.com

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ໂຄງການຍ່ອຍ: ປ1.2.3 ສະຖານທີ່: [illegible] ເມືອງ: ບຸນໃຕ້ ແຂວງ: ຜົ້ງສາລີ ຄັ້ງວັນທີ 11.1.2016

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາຕີກ (√) ຫຼື ຂຽນຊື່ເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ພົວພັນ
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2	ຄຳ[illegible]	ຊ.	ຮອງ/ເລຂາ	ຂມ/ພ.	✓				28883116
3	[illegible]	ຊ	ປ:ຊາວຊົນ	ຂ/ພ	✓				0304775508
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7	[illegible]	ຊ	ປ:ຊາວຊົນ	ຂ/ພ	✓				23903842
8	ນ.[illegible]	ຍິງ	ປະ.[illegible]	[illegible]	✓				97125477
9	ນ.[illegible]	ຍິງ	ປະຊາຊົນ	[illegible]	✓				0309444150

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາເຄີກ (√) ຫຼື ຂຽນຊື່ທ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່�อยู่ສຳລັບການຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
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	ທ. ຄຳນ	ຊ	ປ/ຊ	ຂ/ພ	✓				.	ຄ່ານ
	ທ ເພັດທະວົງ	ຊ	ປ/ຊ	ຂ/ພ	✓				23914577	
	ທ ຄ່ານັ	ຊ	ປ/ຊ	ຂ.ພ	✓				25976254.0	
	ທ ຄ່ານ	ຊ	ປ/ຊ	ຂ.ພ	✓				030 4225501	
	ທ. ທຸ້ມ	ຊ	ປ/ຊ	ຂ.ພ	✓				98863699	
	ທ. ທຸ້ມ	ຊ	ປ/ຊ	ຂ.ພ	✓				93171988	
	ທ. ຈອນ	ຊ	ປ/ຊ	ຂ.ພ	✓				91599314	
	ທ. ສີ	ຊ	ປ/ຊ	ຂ.ພ	✓				030 4957665	
	ທ ຫ	ຊ	ປ/ຊ	ຂ.ພ	✓				—	
	ທ ຄຳ	ຊ	ປ/ຊ	✓	✓				29356910	
	ທ ເພັດ	✓	ການບັນ	ຫນ້າວຽກ	ພະນັກ				22280453	
	ທ ຄ່ານ	✓	ຮຽນ	✓	✓					ຄ່ານ
	ທ ຄ	✓	ປ/ຊ	ການ	✓				29994250	
	ທ ອັນ	ຊ	ປ/ຊ	ການ	✓				23907148	
	ທ ອ	ຊ	ປ/ຊ	ການ	✓					✓
	ທ ວ	ຍ	ປ/ຊ	ການ	✓					
	ທ ປ	ຊ	ປ/ຊ	ການ	✓				23906424	
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ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາເຄີກ (√) ຫຼື ຂຽນຊື່ທ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່ຊູ່ສຳລັບການຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
					ຄົນເຫັນຄວນຫຼຸດ ນາຄານລາວ-ໄຕ	ຄົນເຫັນຄວນຫຼຸດ ນາຄານເງິນ-ສີລຸນຸນ	ຄົນເຫັນຄວນຫຼຸດ ນາຄານລວນ-ຈະເລີນ	ຄົນເຫັນຄວນຫຼຸດ ນາຄານຈີນ-ສີເບດ		
	ຄ່ານ	ຊ	ປ/ຊ	ຂ/ພ	✓				03099932558	
	ທອງ	ຊ	ປ/ຊ	ຂ/ພ	✓				02091776780	
	ນ	ຊ	ປ/ຊ	ຂ/ພ	✓				02055008966	
	ຄ	ຊ	ປ/ຊ	ຂ/ພ	✓				02055337783	
	ຈອ	ຊ	ປ/ຊ	ຂ/ພ	✓				03058880 42	
	ທ	ຊ	ປ/ຊ	ຂ/ພ	✓				98287088	
	ທ ຈ	ຊ	ປ/ຊ	ຂ/ພ	✓				25727737	
	ທ ແ	ຊ	ປ/ຊ	ຂ/ພ	✓				9703062	
	ທ/	ຊ	ປ/ຊ	ຂ/ພ	✓				58008666	
	ທ ຄ	ຊ	ປ/ຊ	ຂ/ພ	✓				5735256	
	ທ	ຊ	ອ	✓				✓	28761567	

ຢັ້ງຢືນຈາກ

Lao People's Democratic Republic
MINISTRY OF AGRICULTURE AND FORESTRY
DEPARTMENT OF PLANNING

NORTHERN RURAL INFRASTRUCTURE DEVELOPMENT SECTOR
PROJECT ADB Grant NO. 0235-LAO (SF)

Unit 7, Ne Rhu Road, Ban Phonexay, Xaysettha District, Vientiane Capital,
Lao PDR Telefax: +856 21 990 249 Email: npmo.nri@gmail.com

ໃບລົງທະບຽນ

ຫົວຂໍ້: ກອງປະຊຸມ ປຶກສາຫາລືເພື່ອວາງແຜນ - ຕົກລົງ.....

ໂຄງການບ່ອຍ: ນ.2 .....ສະຖານທີ່: ບ້ານ ນາຫວາຍ ....ເມືອງ: ບຸນໄຕ້ ....ແຂວງ: ຫຼວງນ້ຳທາ ....ມື້ວັນທີ: 10.1.2016.

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາຕີກ (√) ຫຼື ຂຽນຊື່ເຫົ່າຂອງຄົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່�อยู่ສຳລັບການຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
					ຄົນເຫົ່າຄວນໝອດ ນາຂາລາວ-ໄຂ	ຄົນເຫົ່າຄວນໝອດ ນາຂວນ-ຊີລຽງ	ຄົນເຫົ່າຄວນໝອດ ນາຂວນນອນ-ລະເມ	ຄົນເຫົ່າຄວນໝອດ ນາຂວ້ານ-ຕີເບດ		
	ໄມ້ຍ່ານ	ຊ	ສະເລີ	ນ.ນາຫວາຍ	✓				030526184	
	ບຸດສາ	ຊ	ຫົວໜ້າບ້ານ	ນ.ນາຫວາຍ	✓				020549211314	
	ທ. ດວງຈັນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ	✓				020580[illegible]	ດວງຈັນ
	ທ. ອຸ່ນຄຳ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ	✓				030474[illegible]	ອຸ່ນຄຳ
	ວັນ ຄຳ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ	✓					
	ທ. ສີ ແສງ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ	✓					
	ທ. ວັນ.	ຊ	ປ/ຊ	ນ.ນາຫວາຍ	✓					

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ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາຕີກ (√) ຫຼື ຂຽນຊື່ເຫົ່າຂອງຄົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່ຊູ່ສຳລັບການຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
					ຄົນເຫົ່າຄວນໝອດ ນາຂາລາວ-ໄຂ	ຄົນເຫົ່າຄວນໝອດ ນາຂວນ-ຊີລຽງ	ຄົນເຫົ່າຄວນໝອດ ນາຂວນນອນ-ລະເມ	ຄົນເຫົ່າຄວນໝອດ ນາຂວ້ານ-ຕີເບດ		
	ທ່ານ ບຸນສີ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					020549664118	ທ່ານ ບຸນສີ
	ທ. ສົມໃນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					020544314	
	ທ. ອົງຄຳ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					94509223	
	ທ. ສົມພອນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					020551569726	
	ທ. ພູມເວີ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					030978[illegible]	
	ທ. ປີ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					020958752[illegible]92	
	ທ. ທຽນແກ້ວ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					020948468693	
	ນ.ນ້ອ ບຸນ	ຍ	ປ/ຊ	ນ.ນາຫວາຍ					58732004	ນ.ນ້ອ ບຸນ
	ທ. ອຸ່ນ ແກ້ວ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					020911[illegible]8635	ອຸ່ນແກ້ວ
	ທ. ແປ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					030541224[illegible]	
	ທ. ຄຳ	✓	✓	✓					59652879	
	ນ. ອຸ່ນແກ້ວ	ຍ	ປ/ຊ	ນ.ນາຫວາຍ						
	ທ. ຈອນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					29552955	
	ທ. ນວນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					54216193	
	ທ. ຂວັນ ທ່ອນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ						
	ທ. ວັດ ສຸລິ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ						
	ທ. ນຸ່ນ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					59722277	
	ທ. ວັນ ທ້ວ	ຊ	ປ/ຊ	ນ.ນາຫວາຍ					59886232	

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ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພະນັກງານ ສ່ວນ	ກະລຸນາເຊັນ (√) ຫຼື ຂຽນຊື່ເຈົ້າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ທີ່�อยู่ສໍາລັບການຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
					ຊົນເຜົ່າຄານໝອດ ນາຂະຫວາ-ໄຕ	ຊົນເຜົ່າຄານໝອດ ນາຂານົ້ງ-ສີຂຸນຫຼວງ	ຊົນເຜົ່າຄານໝອດ ນາຂານອນ-ລະແມ	ຊົນເຜົ່າຄານໝອດ ນາຂາຈົນ-ຕີນລຽບ		
	ນ່ ກຸ່ມ ແສງ	ຊ	ປ: ຊ	ນ: ນາຂອນ					54474337	ນ່ ກຸ່ມ ແສງ
	ທ. ແສງ	ຊ	ປ: ຊ	ນ ນາ ນ						ທ. ແສງ
	ທ ພອນ	ຊ	ປ ກ	ນ ນ					03059112090	ທ. ພອນ
	ທ. ຄຳ	ຊ	ປ: ຊ	ນ ນ					54157781	ທ ຄຳ
	ທ ກີ	ຊ	ປ: ຊ ຊ	ນ ນ					998894	ທ ກີ
	ທ. ແຈ່ ບ ຈ	ຊ	ປ: ຊ ຊ	ນ ນ					58024571	ແຈ່ ບ ຈ
	ທ ທ	ຊ	ປ: ຊ ຊ	ນ ນ					58018653	ທ
	ນ ນ	ຊ	ປ: ຊ	ນ ນ					54986429	ນ ນ
	ທ. ສ	ຊ	ທ	ນ					55592131	
	ທ. ທ	ຊ	ປ: ຊ ຊ	ນ ນ					91722203	
	ທ ຊ	✓	ຊ	ນ ນ					02181616	
	ນ. ທ	ຍ	✓	ນ						
	ນ. ນ	ຍ								
	ທ	ຊ	ວ	ສ ນ				✓	22848522	
	ນ. ແ	ຍ	ວ	ນ					55928685	
	ທ.	ຊ	ວ	ກ					58005252	
	ນ	ຍ	ວ	ນ				✓	54278887	
	ທ.	ຊ	ວ	ກ				✓	2876 1567	

Registration form

Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	ສົມ ຄຳພັນ:ລວ	ຮອງນາຍບ້ານ	ບ້ານ ຫາດສ:	54353734	ສົມ ຄຳ
2	ແສງທານ	ຮອງນາຍບ້ານ	ຫາດສ:	54804944	[illegible]
3	ສົງສົມ	ບ:ການ	ຫາດສ:	58290722	[illegible]
4	ສົກສ	ບ:ການ	ຫາດສ:		ສົກ
5	ທ. ຈ	ບ:ການ	ຫາດສ:		ທ. ຈ.
6	ທ. ສີພັນ ແກ້ວ	——"——	——"——	58578688	[illegible]
7	ທ. ວັນດີ	——"——	——"——	-	ວັນ
8	ທ. ຄຳ	——"——	——"——		ຄຳ
9	ທ. ໄກ	——"——	——"——		[illegible]
10	ທ. ເລ	——"——	——"——		[illegible]
11	ນ. ລາ	——"——	——"——		ນ. ລາ
12	ນ. ແພງ	——"——	——"——		ນ. ແພ
13	ນ. ວັນສອນ	——"——	——"——		ນ. ວັນ
14	ນ. ຄຳ	——"——	——"——		ນ. ຄ
15	ນ. ວັນ	——"——	——"——		ນ. ວ
16	ນ. ສີ	——"——	——"——		ນ. ສ.
17	ນ. ສ:ນ	——"——	——"——		ສ:ນ
18	ນ. ຫ	——"——	——"——		ຫ
19	ນ. ຕ ແກ້	——"——	——"——		ຕ ແ
20	ນ. ຄ ຍ	——"——	——"——		ຄ ຍ
21	ນ. ບ	——"——	——"——		ບ
22	ນ. ວ	——"——	——"——		ວ

ບ້ານ ຫາດສ

Registration form

Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	นาย แก่น สิน	ป. ฐานสูง	บาดตะ		แก่น สิน
2	น. คุมทัน.	ป. ฐานสูง	บาดตะ		คุมทัน.
3	นา สันสิดลเดชะ	หัวหน้าเขตอุทยาน	ชัยปทม.	56843773	
4	น. จอน	ป. ฐานสูง	บาดตะ		น. จอน
5	น. กันยา	—	—		น. กันยา
6	น. แสงดาว แสดงเงา	วิศวกร	ส.ย.น.	91126444	
7	น. คุณะปิดอน ใจ:สัก	วิศวกร ชำ แขวง	พสส 11201	22380809	
8	ก. กนิษา รกส.กน	วิศวกร ชำแขวง	FES	22333328	

Registration form

Date....4/11/2016.....subproject Name.....district..Phaudom.

No	Name and surname	Position	Organization	Contact No	Signature
1	[illegible]	ประธาน	บ้านสีบุนเรือง	56869702	[illegible]
2	[illegible]	เลขานุการ	บ้านสีบุนเรือง	96087828	[illegible]
3	[illegible]	ป.ธาน	บ้านสีบุนเรือง	55574483	[illegible]
4	[illegible]	ป.ธาน	บ้านสีบุนเรือง		[illegible]
5	[illegible]	ป.ธาน	บ้านสีบุนเรือง		[illegible]
6	[illegible]	ป.ธาน	บ้าน [illegible]	96245 8200	[illegible]
7	[illegible]	ป.ธาน	บ้านสีบุนเรือง	56644403	[illegible]
8	[illegible]	ป.ธาน	บ้านสีบุนเรือง		[illegible]
9	[illegible]	ป.ธาน	[illegible]		[illegible]
10	[illegible]	ป/ธ	[illegible]		
11	[illegible]	ป/ธ	บ้านวุยกาใต้		[illegible]
12	[illegible]	ป/ธ	บ้านวุยกาใต้		[illegible]
13	[illegible]	ป/ธ	บ้านวุยกาใต้		[illegible]
14	[illegible]	ป/ธ	บ้านแหนยกา		[illegible]
15	[illegible]	ป/ธ	บ้านแก่นยกา		[illegible]
16	[illegible]	ป/ธ	บ้านแก่นยกา		[illegible]
17	[illegible]	[illegible]	[illegible]		[illegible]
18	[illegible]	ป/ธ	[illegible]		[illegible]
19	[illegible]	อ/ธาน			[illegible]
20	[illegible]	อ/ธาน	PPD	55884458	[illegible]
21	[illegible]	อ/ธาน	DEO [illegible]	56531044	[illegible]
22	[illegible]	อ/ธาน	[illegible]	92385809	[illegible]

Registration form

Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	[illegible]	[illegible]	[illegible]	55185376	[illegible]
2	[illegible]	[illegible]	[illegible]		[illegible]
3	[illegible]	[illegible]	[illegible]		[illegible]
4	[illegible]	[illegible]	[illegible]		[illegible]
5	[illegible]	[illegible]	[illegible]		[illegible]
6	[illegible]	[illegible]	[illegible]	59501569	[illegible]
7	[illegible]	[illegible]	[illegible]		[illegible]
8	[illegible]	[illegible]	[illegible]		[illegible]
9	[illegible]	[illegible]	[illegible]		[illegible]
10	[illegible]	[illegible]	[illegible]		[illegible]
11	[illegible]	[illegible]	[illegible]		[illegible]
12	[illegible]	[illegible]	[illegible]		[illegible]
13	[illegible]	[illegible]	[illegible]		[illegible]
14	[illegible]	[illegible]	[illegible]	030 4030516	[illegible]
15	[illegible]	[illegible]	[illegible]		[illegible]
16	[illegible]	[illegible]	[illegible]		[illegible]
17	[illegible]	[illegible]	[illegible]		[illegible]
18	[illegible]	[illegible]	[illegible]		[illegible]
19	[illegible]	[illegible]	[illegible]	78967926	[illegible]
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Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	นายสันติ.กตัวกี.	รองผู้ใหญ่บ้าน	บ.สันบุญเรือง	98062032.	
2	นายบุญยืน คุณอรรถ	ผู้ใหญ่บ้าน	บ.อรุณ อำเภอไชยพร		
3	นาง ผ่องใจ.	อดีตผู้ใหญ่บ้าน	บ. อรุณ อำเภอไชยพร	963779955	
4	นาง. ดำ ผาย	นายกเทศมนตรีตำบล	อรุณ อำเภอไชยพร	0309298456	
5	นาง. พอน ปง	ป/ง	บ. แต่ม ดง	.	พอน ปง
6	นา ภูมิพัฒ อดีตกำนัน	ป/ง	บ.แต่ม ดง	56164439	
7	นาง ดำ	นายกเทศมนตรีตำบลแม่ทะลุ	ตำบลแม่ทะลุ	9144445236	
8	นาง แก้ว	ป/ง	อรุณ อำเภอ		แก้ว
9	น. ก้อน	ป/ง	อรุณ อำเภอไชยพร		
10	น. ศรี	ป/ง	อรุณ อำเภอไชยพร		
11	น. ตุ้น	ป/ง	อรุณ อำเภอไชยพร		
12	น. เอี่ย	ป/ง	อรุณ อำเภอไชยพร		
13	น. ยะ	ป/ง	อรุณ อำเภอไชยพร		
14	น. ปู่	ป/ง	อรุณ อำเภอไชยพร		
15	น. อ้น	ป/ง	อรุณ อำเภอไชยพร		
16	น. เสือ	ป/ง	อรุณ อำเภอไชยพร		
17	น. ดอน	ป/ง	อรุณ อำเภอไชยพร		
18	น. ชัย	ป/ง	อรุณ อำเภอไชยพร		
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Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]		[illegible]
4	[illegible]	[illegible]	[illegible]		[illegible]
5	[illegible]	[illegible]	[illegible]		[illegible]
6	[illegible]	[illegible]	[illegible]	030514[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]		[illegible]
8	[illegible]	[illegible]	[illegible]		[illegible]
9	[illegible]	[illegible]	[illegible]		[illegible]
10	[illegible]	[illegible]	—		[illegible]
11	[illegible]	[illegible]	[illegible]		
12	[illegible]	[illegible]	[illegible]	020223335[illegible]	
13	[illegible]	[illegible]	[illegible]	030935[illegible]50	
14	[illegible]	[illegible]	[illegible]		
15	[illegible]	[illegible]	[illegible]		
16	[illegible]	[illegible]	[illegible]		
17	[illegible]	[illegible]	[illegible]		
18	[illegible]	[illegible]	[illegible]		
19	[illegible]	[illegible]	[illegible]		[illegible]
20	[illegible]	[illegible]	[illegible]		[illegible]
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Registration form

Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	ທ. ຂຽນ	ປະຊາຊົນ	ບ້ານ ນອກ		ທ. ຂຽນ
2	ທ. ຂວ	— —	— —		ຂວ
3	ຄຳ ຕາ ຈຸ ຍ ພູ	—	—		[illegible]
4	ນ. ເກດ.	ປະຊາຊົນ	ບ້ານ ນອກ		ເກດ
5					
6					
7					
8					
9					
10					
11					

ຫົດນ້ອຍ ໃຊ້ຍະວົງ

Registration form

Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1	ທ ຈຸນເກົ້າອົງຄໍ້ແສງ	ຫົວໜ້າ	ນໍ້ປາ	23927320	
2	ສົມບັດ ວໍລະພົງ	ຫົວໜ້າ	ນໍ້ປາ	55931408	
3	ທ ທົດສາ	-ll-	-ll-		
4	ທ ບຸນທອງ	-ll-	ນໍ້ສະໝອງໃຕ້	99959260	
5	ທ ສອນ	-ll-	ນໍ້ສະໝອງໃຕ້		ທ. ສອນ
6	ທ. ເຫັນ	-ll-	-ll-		ທ. ເຫັນ
7	ທ. ລາຍ	-ll-	-ll-		ລາຍ
8	ທ. ແພນ	-ll-	-ll-		ແພນ
9	ທ ບຸນລາ	-ll-	-ll-		ບຸນລາ
10	ນ. ຈັນ	-ll-	-ll-		ຈັນ
11	ທ. ວອນ	-ll-	-ll-		ວອນ
12	ຄຳເພນ	-ll-	-ll-	52103391	ຄຳເພນ
13	ບຸນຈູນ	-ll-	-ll-	15629 7579	ບຸນຈູນ
14	ບຸນເລີ	-ll-	-ll-		ບຸນເລີ
15	ທອງສົມ	-ll-	-ll-		ທອງ
16	ເກດ ຈູ	-ll-	-ll-		ຈູ
17	ທ ຊົ່ວ	-ll-	-ll-		
18	ທ. ສີຄໍ	-ll-	-ll-	59508467	
19	ນາ ເນຕະນະພອນ	CDO	ເມືອງພະຈຸລະ	03058346 12	
20					

ບ້ານ ນ້ຳສະໝອງໃຕ້ ເມືອງຫ້ວຍຊາຍ ແຂວງ ບໍ່ແກ້ວ

ທີດນ້ອຍ ໃຊ້ຍະວົງ

Registration form

Date.....subproject Name.....district.....

No	Name and surname	Position	Organization	Contact No	Signature
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

ທີດນ້ອຍ ໃຊຍະວົງ

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ.....

ຄັ້ງວັນທີ.....9/11/2016..... , ທີ່ບ້ານ .....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ທ ສຸລະສີດ	ລາວ	ກ/ກ ພ ລວ	23946789	
2	ທ. ຈຸນ ຄີ	ລາວ	ສຶກສາ		
3	ນ. ນວງ	ລາວ	ກ/ກ ນ. ຄງ	55112909	
4	ນ ຈຸ	ລາວ	ສວລ	56753336	
5	ທ່ານ	ລາວ	ສວລ	9158918	
6	ທ. ນ	ລາວ	ສວລ		
7		ລາວ	ສວລ	59485075	
8		ລາວ		55483711	
9	ນ. ບົວ	ລາວ	ກ/ກ	96873222	
10	ນ	||ກ	ສວລ	23051944	||ກ
11	ນ	||ມ	||ມ	
12	ນ	||ດ	||ດ	
13	ນ	||ມ	||ມ	30286353	
14	ນ	||ມ	||ມ	52210055	
15	ນ.	||ມ		23046555	
16	ນ	||ມ	FES	22326830	
17	ນ.	||ມ	FES	22333328	
18	ນ. ສົມ	||ມ	ສວລ	98877053	||ມ
19	ນ	||ມ	ສວລ	30921662	||ມ
20	ນ.	||ມ	ສວລ		||ມ
21	ນ	||ແ	ສວລ		||ແ
22	ທ	||ແ	ສວລ		||ແ
23	ນ	||ມ	ສວລ		||ມ
24	ທ.	||ດ	ສວລ		||ດ
25	ນ.	||ມ	ສວລ	28916543	||ດ
26	ທ.	||ນ	||ນ		||ນ
27	ທ.	||ນ	||ນ	22270933	
28	ທ.	||ນ	||ນ	22999803	

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ.....ນ້ຳນັ້ນ.....

ຄັ້ງວັນທີ....9....1....2016..... , ທີ່ບ້ານ ...ນ້ຳນັ້ນ, ເມືອງ...

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ນ. ...	ລາວ	...	55488711	
2	ນ. ...	ລາວ	...		...
3	ນ. ...	ໄຕ້ດ່ຳ	—"—	58382317	...
4	ນ. ...	...	—"—	91539472	...
5	...	...	—"—	03094402 01	
6	...	...	—"—	58721703	...
7	...	...	—"—		...
8	...	...	—"—		...
9	...	...	—"—		...
10	...	...	—"—		...
11	...	...	...		...
12	...	...	—"—	55586735	
13	...	...	—"—	99214268	
14	...	...	—"—	97741700	...
15	...	...	—"—		...
16	...	...	—"—	55288010	...
17	...	...		92926685	...
18	...	...	—"—		...
19	...	...	—"—		...
20	...	...	—"—		...
21	...	...	—"—		...
22	...	...	—"—		...
23	...	...	—"—		...
24	...	—"—	—"—		—"—
25	...	—"—	—"—		—"—
26	...	—"—	—"—		—"—
27	...	—"—	—"—		—"—
28	...	—"—	—"—	96885 5444	...
29	...	—"—	—"—		...
30	...	—"—	—"—		

ສະຫວັນ ... ບ້ານ ... ເມືອງ ...

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ.....ນ້ຳເນັ້ກ.....

ຄັ້ງວັນທີ.....ຕ.1.016..... , ທີ່ບ້ານ ..ນ້ຳເນັ້ກ..., ເມືອງ ...

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ທ ຄ່ຳ ລ ງ	ລື	ບ ນ້ ບ້ ກ	030921017	[illegible]
2	ທ. ຄສ	———	———		[illegible]
3	ທ. ຂ ບ	———	———		ທ. ບ
4	ນ ລ ສ	———	———		[illegible]
5	ທ. ແ	ຫ ດ	———		ທ. ແ
6	ທ ສ ລ: ສ	ລ	ກ ນ ເ ດ	23546784	[illegible]
7	ບ. ເ	ລ	ບ. ນ ກ.		ບ ເ
8	ນ. ພ	ລ	ບ. ນ ກ		ນ. ພ
9	ທ ບ	ລ	ບ. ນ ກ		ທ. ບ
10	ນ ລ	ລ	ບ. ນ ກ		ນ. ງ
11	ທ. ຄ ນ ທ ດ ຊ ຊ	ໄ ດ	ສ ກ ດ ລ ນ ທ ວ	22999803	[illegible]
12	ທ. ວ ນ ສ	ລ	ບ. ນ ກ	020 20 9 73	ວ ນ ສ
13	ນ. ແ ດ ວ	ລ	———		ນ. ແ ດ ວ
14	ນ. ແ	ຫ ດ	———	97995395	ນ. ແ
15	ນ. ນ ລ ນ	ລ	ກ ນ. ລ	55112902	[illegible]
16	ບ. ທ ນ ບ ທ	ລ	ທ ທ ນ	96873202	[illegible]
17	ທ. ສ ລ ຍ ລ ປ ດ	ລ	ສ ນ ນ	021812144	[illegible]
18	ທ ນ ນ ນ ນ	ນ	ສ ນ ນ	22720923	[illegible]
19	ນ ນ ດ ລ	ຫ	FFS	22326830	[illegible]
20	ທ ນ ເ	ລ	[illegible]		[illegible]
21					
22					
23					
24					
25					

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ ..ນ້ຳຊ້ຳ 4+5.....

ຄັ້ງວັນທີ.....21/1/2016..... , ທີ່ບ້ານ ..ນາ ຄວ.....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ຂວນ ອຸ່ນ	ລາວ	ປະຊາຊົນ	97365268	
2	ໄຊ ຄຳ ນະລັດ	—"—	—"—	99555856	
3	ໄຊ ຈູ	—"—	—"—	54854533	
4	ນ.ນ ສຸດ ທຸ	—"—	ນາບ້ານ	54856777	
5	ວ ນ ນ ວ	—"—	—"—	98291520	
6	ໄຊ ສົມ ຄິດ	—"—	—"—	02091601442	
7	ໄຊ ອຸ ສ ທ ວ	—"—	—"—	55867891	
8	ໄຊ ບຸ ບ	—"—	—"—	99717177	
9	ອ ຄ	—"—	—"—	99903835	
10	ທ ວ ເ	—"—	—"—	[illegible]	
11	ໄຊ ສ ນ ສ	—"—	—"—	55038920	
12	ຄ ວ ນ ວ	—"—	—"—	96000040	
13	ໄ ຄ ນ	—"—	—"—	91267605	
14	ນ ບ ປ	—"—	—"—	56919700	
15	ໄ ນ ວ ບ	—"—	—"—	55758033	
16	ໄ ນ ແ ຍ	—"—	—"—	29915800	
17	ນ ວ ສ ຍ	—	—	59954442	
18	ໄ ນ ແ ນ	—	—	44[illegible]52	
19	ຄ ວ ຄ ຈ	—	—	97630151	
20	ນ ຈັນ ທະ ລາ	ລາວ	ວິ ສ ເ ກ ບ	22303329	
21	ນ ແ ສ ຄ ນ	ລ	ສ ນ ແ	96673191	
22	ນ.ນ ອ ວ ນ ຈ ທ ປ	ລ ວ	ກ ສ ກ ແ ຂ ວ	96873222	
23	ນ. ນ ນ ລ ສ ກ	ລ ວ	PES	22333328	
24	ນ. ອ ນ ດ ວ ນ	ລ ວ	—	22326830	
25	ທ. ສ ຈ ສ ນ ນ	ລ ວ	ສ ແ ດ ດ ລ ນ	55970546	
26	ທ. ດ ນ ສ ນ ຊ ນ	ລ ວ	ສ ດ ດ ລ ນ ທ ນ	22499803	
27	ທ. ຊ ວ ນ ວ ຊ ຍ ຂ ວ ນ	ລ ວ	ສ ນ ດ ນ ວ ນ ທ		
28	ນ. ສ ນ ທ ນ ທ ນ ນ	—	ສ ແ ດ ດ ລ ນ	98200913	
29					

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ ..ນ້ຳ ຊົນ 4 + 5.....

ຄັ້ງວັນທີ..... 8/1/2016 ....., ທີ່ບ້ານ ....ນາຄາ.....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ນ.ນ້ຳ ສະ ຫວ	ລາວ	ຫ.ວ.ສ ກ່ານວ.ງ	55788711	
2	ທ່ານ ອຸ່ນ ແອ	ລາວ	ປ/ງ ບ້ານ ນາຄາ	55560915	
3	ທ່ານ ຄຳ ຈັນ	——ນ—		55560353	
4	ທ່ານ ຄຳ ຈັນ	——ນ—	—ນ—	02028833003	
5	ທ່ານ ຊົນ ສ	——ນ—	—ນ—	55753563	
6	ທ່ານ ຈະ ນ	——ນ—	—ນ—	55753599	ທ່ານ ຈະ ນ
7	ທ່ານ ວ ຄ	——ນ—	—ນ—	98280465	
8	ນ.ສຸດ ເ ອ ນ ທ ອ	—ນ—	—ນ—	55885200	ນ.ສຸດ ເ ອ ນ ທ ອ
9	ນ.ຄ ວ ນ	—ນ—	—ນ—	02055174217	ນ.ຄ ວ ນ
10	ນ.ຈ ຈ ນ ເ ສ			99727667	ນ.ຈ ຈ ນ ເ ສ
11	ນ.ເ ຈ ນ ດ			54715647	ນ.ເ ຈ ນ ດ
12	ນ.ຈ ນ ເ ສ	—ນ—	—ນ—	54354540	ນ.ຈ ນ ເ ສ
13	ນ ທ ວ ນ			97465604	ທ ວ ນ
14	ນ.ນ້ ນ	—ນ—	—ນ—	55167104	ນ.ນ້ ນ
15	ທ່ານ ບ	—ນ—	—ນ—	56753334	ທ່ານ ບ
16	ທ່ານ ຫ ຈ	—ນ—	—ນ—	99138775	ທ່ານ ຫ ຈ
17	ທ່ານ ທ ອ ບ ນ	—ນ—	—ນ—	58014015	ທ່ານ ທ ອ ບ ນ
18	ນ.ເ ກ ງ ດ ວ	——ນ—	ຂະ ສ.ກ່ານ ເ ມ ອ ງ	97643646	
19	ທ່ານ ທ ວ	——ນ—		02049666962	ທ່ານ ທ ວ
20	ນ.ຈ ນ ທ ນ	——ນ—		ກ ກ 280199	ນ.ຈ ນ ທ ນ
21	ນ.ທ ຈ ຢ ງ	——ນ—			ນ.ທ ຈ ຢ ງ
22	ທ່ານ ລ	——ນ—		55785987	ທ່ານ ລ
23					

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ...ນ້ຳທາ ຂັ້ນ 6 ... ບ້ານ ... .

ຄັ້ງວັນທີ...8/1/2016..... , ທີ່ບ້ານ ... .

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	...	...	...	55438714	...
2	...	...	...	99795514	...
3	...	...	...	55340869	...
4	...	...	...	030462879	...
5	...	...	...	54405461	...
6	...	...	...	59483440	...
7	...	...	...	55724771	...
8	...	...	...	97643646	...
9	...	...	...	22999803	...
10	...	...	FES	22333328	...
11	...	...	FES	22326830	...
12	...	...	...		...
13	...	...	...	23952119	...
14	...	...	...	47255711	...
15	...	...	...	96873222	...
16	...	...	...	52356222	...
17	...	...	...	51121350	...
18	...	...	...	56483900	...
19	...	...	...	55175604	...
20	...	...	...	52840971	...
21	...	...	...	55886864	...
22	...	...	...		...
23	...	...	...	54403202	...
24	...	...	...	55970545	...
25	...	...	...		...
26	...	...	...	021 812164	...
27					
28					

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ...ນ້ຳງານ 6...ບ້ານ...

ຕັ້ງວັນທີ...8/1/2016....., ທີ່ບ້ານ ...

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	...	...	...	55248874	...
2	...	...	...	99795514	...
3	...	...	...	55310869	...
4	...	...	...	03046287789	...
5	...	...	...	54405461	...
6	...	...	...	59483440	...
7	...	...	...	55724771	...
8	...	...	...	97643646	...
9	...	...	...	22999803	...
10	...	...	PES	22333328	...
11	...	...	PES	22326830	...
12	...	...	...		...
13	...			23952119	...
14	...	...	...	47255711	...
15	...	...	...	96873222	...
16	...	...	...	52356211	...
17	...	...	...	51111330	...
18	...	...	...	56483400	...
19	...	...	...	55175604	...
20	...	...	...	52840971	...
21	...	...	...	55886864	...
22	...	...	...		...
23	...	...	...	54403303	...
24	...	...	...	55970524	...
25	...	...	...		...
26	...	...	...	021 819164	...
27					
28					

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ...ນໍ້າດ້ານ...5+6.....

ຄັ້ງວັນທີ...8/1/2016..... , ທີ່ບ້ານ .ຍາງ.ພ.ກ.....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ນ. ເກັງ ຂ	ລື	ຫ: ສຶກສາ ເມືອງ	97643646	[illegible]
2	[illegible]	ລ	ຍາງ.ພ	56289756	[illegible]
3	[illegible]	ລ	ຍາງ.ພ	55996805	[illegible]
4	[illegible]	ລ	ຍາງ.ພ	52832242	[illegible]
5	ໄຊ ນ້ອ	ລ	ຍາງ.ພ		ໄຊ ນ້ອ
6	[illegible]	ລ	ຍາງ.ພ	56489611	[illegible]
7	[illegible]	ລ	ຍາງ.ພ	58604094	[illegible]
8	ຈັນ ບຸນ	ລ	ຍາງ.ພ		ຈັນ ບຸນ
9	ຈັນ ເກົ້	ລ	ຍາງ.ພ		ຈັນ ເກົ້
10	ຈັນ ທົນ ນ້ອ	ລ	ຍາງ.ພ	59907374	ຈັນ ທົນ ນ້ອ
11	ນ. ແສງ ດາ	ລ	ຍາງ.ພ		ນ. ແສງ ດາ
12	ໄນ ສາ	ລ	ຍາງ.ພ	03053734	[illegible]
13	ໄນ ສັນ	ລ	ຍາງ.ພ		
14	ທ. ສ	ລ	ຍາງ.ພ	020[illegible]463	ທ. ສ
15	ທົນ ວຸ້ນ ແພງ	—"—	—"—	020 95566923	ທົນ ວຸ້ນ ແພງ
16	ທົນ ແພ	—"—	—"—		ທົນ ແພ
17	ທ. ຕາ	—"—	—"—	02091030630	ທ. ຕາ
18	ນາງ ຈັນ ທາ	—"—	—"—	02056075695	ນາງ ຈັນ ທາ
19	ທ. ຂັ	—"—	—"—	020	ທ. ຂັ
20	ໄນ ກາ	—	—	54611401	ໄນ ກາ
21	ນາງ ຕຸ	—		[illegible]	ນາງ ຕຸ
22	ນາງ ຈັນ ເພັ	—"—	—"—	54[illegible]	ນາງ ຈັນ ເພັ
23	ນາງ ຄຳ	—"—	—"—	[illegible]	ນາງ ຄຳ
24	ໄນ ຈ່ອ	—"—	—"—	56492198	ໄນ ຈ່ອ
25	ນາງ ນ່ ລາ	—	—	22392880	ນ ລ
26	ໄນ ທົ່ ນາ	—"—	—"—		ໄນ ທົ່ ນາ
27	ນາງ ຂ	—"—	—"—		ນ ຂ
28	ທັ ຈຸ ນ	ລາວ	—"—	55167625	[illegible]
29	ຈ ແກ້ ວ	ລ	—"—	54579598	[illegible]
30	ນາງ ນ	ລ	—"—		[illegible]

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສິ່ງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ.....ນ້ຳດ້ວງ 5 + 6.....

ຄັ້ງວັນທີ.....8/11/2016..... , ທີ່ບ້ານ .....ນ້ຳງຽນ.....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ໜານ ແຍ	ລາວ	ບ, ຜ	55117799	ໜານ ແຍ
2	ຂ່ມ ກອງ	ລາວ	ບ ... ຜ	95273602	ຂ່ມ ກອງ
3	ຫນ ຫນ ແກ້ວ	ລາວ	ບ ... ຜ	58017639	ທ. ຫນ ແກ້ວ
4	ຂ່ມ ນວນ	ລາວ	ນ້ຳ ດ້ວງ	58858508	ຂ່ມ ນວນ
5	ໜານ ວັນ	ລາວ	ນ້ຳ ດ້ວງ	52998605	ໜານ ວັນ
6	ຂ່ມ ເສີ	ລາວ	ນ້ຳ ດ້ວງ	58816448	ຂ່ມ ເສີ
7	ທ. ຄຳ ກອງ	ລາວ	ນ້ຳ ດ້ວງ	96677119	[illegible]
8	ຂ່ມ ເງີນ	ລາວ	ນ້ຳ ດ້ວງ	52952720	[illegible]
9	ທຄຳ ວອນ	ລາວ	—"—	98132551	ທ. ຄ ວອນ
10	ທ. ເສີ ສານ	ລາວ	ບ. ນ້ຳ ດ້ວງ	91920445	[illegible]
11	ທ. ຈັນ ຕາ	ລາວ	ບ. ນ້ຳ ດ້ວງ	59781502	ທ. ຈັ ຕ
12	ທ. ຈັ ດ	ລາວ	ບ. ນ້ຳ ດ້ວງ	96664943	ທ. ຈັ ດ
13	ຄວ ຂ	ໄທ	ບ. ນ້ຳ ດ້ວງ	59417345	[illegible]
14	ນ. ບ ວ ວ	ລາວ	ກ. ສ ກ ແ ວ	96873282	[illegible]
15	ນ. ເ ສ ນ	—"—	—"—	55488711	[illegible]
16	ທ ຈ ນ ສ ນ ທ 3 ຊ	ໄ ແ	ສ ແ ດ ນ ແ	22999803	[illegible]
17	ທ ທ ນ ບ ດ	ລາວ	ບ ນ ນ	58854622	[illegible]
18	ທ. ສ ນ ນ ທ ສ	ລາວ	ນ ນ ດ	22200913	[illegible]
19	ນ. ຈ ໄ ນ ຄ ນ ສ	ຫ ແ	FFS	22326830	[illegible]
20	ທ. ກ ນ ຄ ສ ກ	ພ ນ	ເ ນ ນ	22333328	[illegible]
21	ທ. ສ ນ ໄ ລ ນ ປ ສ	ລ ນ	ບ ນ ນ	02181264	[illegible]
22	ທ. ຈ ນ ທ ສ ນ ນ ກ ວ	ລ ວ ນ	ບ ນ ນ	22270933	[illegible]
23					
24					

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ...ເນີ້ງ.ສ.ປ...

ຄັ້ງວັນທີ...7..1..2016..... , ທີ່ບ້ານ ...ພູງ.ງ.ນ...

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ນ.ເກສອນ ...	ໄຕ່ດ່ຳ	ກ.ປ້ອງກັນ	55686453	
2	ທ.ຄຳ...	ຍວນ	ບ/ຊ	97335450	
3	ທ.ບຸນທຽນ	ຍວນ	ບ/ຊ	55113262	Bounthay
4	ທ.ບຸນຈົ	ຍວນ	ບ/ຊ	03050729755	
5	ທ.ບຸນວັນ	ຍວນ	ບ/ຊ		
6	ທ.ຈິດ	ຍວນ	ບ/ຊ	55081004	
7	ທ.ແສງ ...	-ii-	-ii-	55364450	
8	ທ.ນະ...	-ii-	-ii-	03055423247	...
9	ທ.ນ...	-ii-	-ii-	55552100	
10	ທ.ນ...	-ii-	-ii-	56488480	
11	ທ້າວ ...	ໄທລື	ບ/ຊ		...
12	ທ.ຫ...	...	-ii-	56181163	
13	...	...	...	56151275	
14	ທ.ບ...	...	...	55874...	
15	ທ.ອ...	...	...	98964055	
16	ນ.ບຸ...	...	...		...
17	ທ.ນ...	...	...	97170...	
18	...	...	...	97...	
19	...	...	...	55656631	
20	...	...	...	03755449	
21	...	...	...	55363204	
22	...	...	...	56787972	
23	...	...	...	03390178	
24	...	...	...		
25	...	...	...	55364409	
26	...	...	...		
27	...	...	...	56857130	
28	...	...	...	0	
29	...	...	...	0	
30	...	...	...	03097636 46	

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສິ່ງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປ້ 2+3

ການຊົນລະປະທານ ..... ເມືອງ ..... ແຂວງ .....

ມື້ທີ່ ..... 3/11/2016 ..... , ທີ່ບ້ານ ..... ພານ ..... ເມືອງ .....

ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
ທ ບຸນ ສີ	ໄຕ່ແດງ	ປ/ຊ	0	ບຸນ ສີ
ທ. ບຸນ ເລີ	ລາວ	ປ/ຊ	56785209	ບຸນ ເລີ
ທ ບຸນ ຊ່ວ	ຍົນ	ປ/ຊ	55195729	ບຸນ ຊ່ວ
ທ. ແພງ ສຸລິນ	ລາວ ເນີ	ພນ	56646572	Aimye ແພງ
ນ. ແກ້ວ ນ.	ໄຕ່ແດງ	ປ/ຊ		ນ. ແກ້ວ ນ.
ນ. ຍານ	ໄຕ່ແດງ	ປ/ຊ		ນ. ຍານ
ນ. ເບ້ງ	ໄຕ່ແດງ	ປ/ຊ		ນ. ເບ້ງ
ນ. ຈຸນ	ໄທ ແດງ	ປ/ຊ	55349984	Vang
ນ. ທຸລະ ໄທ	ໄທ ແດງ	ປ/ຊ		ນ. ທຸລະ ໄທ
ທ ແດ ~~ຍ~~	~~ຍ~~			
ທ ກວ	ຍວນ	ປ/ຊ	58884422	ກວ
ນ. ບ່ວ ຮ	ລາວ	ກະສິກຳ ເມືອງ	91873228	
ທ. ແສ່ງ ສິດ	ລ	ອຸດສາຫະກຳ	92968998	
ນ. ເພ ຄຳ	ລ	ກະສິກຳ	55488711	
ນ. ວິໄລ ລ	ໄທ	FES	22326230	
ທ ຄຳ ສ	ໄຕ່	ກົມ	22999803	
ທ	ໄຕ	——— ເຊ	22397825	
ท. ทวีพา ศุภะ	ພູ	FES	22333378	

ນາຍບ້ານ
ບ້ານ
ພານ

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ຮ່ວມກັບຄະນະກວດກາ ປົກປ້ອງສັງຄົມ ແລະ ສິ່ງແວດລ້ອມ ໂຄງການ ປີ 2+3

ໂຄງການຊົນລະປະທານ.....ນ້ຳ ຢ້ານ.....

ຄັ້ງວັນທີ...7...1...2016..... , ທີ່ບ້ານ .....ນ້ຳ ຫຼັ້ນ.....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ນ. ເກສອ ບຸນໄຊ	ໄຕ້ດຳ	ກ.ສ.ທ.ເມືອງ	55686453	
2	ທ. ກັນຍາ ວຸດສະນຸ	ລາວ	FES	22333328	
3	ນ. ວິໄລ ຄຳສຸດ	ໄທ ແດງ	FES	22320230	
4	ທ. ຄຳ ສີ ທ.ບ.ນ.ໄ	ໄຕ້ແດງ	ສຶກສາ ແຂວງ	22999803	
5	ທ. ສີ ດ	ລາວ	ບ້ານ ອ້ານ	56[illegible]	
6	ທ. ຄຳ	ລາວ	[illegible]	[illegible]	
7	ທ. ວັນ	ລາ	—ll—	97377204	
8	ນ. [illegible]	ລາ	—ll—	58023643	
9	ທ. ວ	ລ	ນ. ວ	5[illegible]	
10	ທ. ເ	ລ	ບ. ວ	88844155	
11	ທ. ຄ	ລ	ບ. ນ	24,688	
12	ທ. ແ	ລ	ບ. ຄ		
13	ທ. ສ	ໄ	ນ. ນ	56568379	
14	ທ. ລ	ໄ	ບ. ນ	54[illegible]	
15	ທ. ນ	—	—	02391985	
16	ນ. ບ	ລ	PPO	28907998	
17	ທ. ນ	ລ	[illegible]	22942,9019	
18	ນ. ຈ	ລ	ບ. ນ	5[illegible]	
19	ນ. ແ	ໄ	ນ. ສ		ນ. ແ
20	ທ. ແ	ໄ	—		ທ. ແ
21	ນ. ເ	ລ	ກ. ສ	55288711	
22					