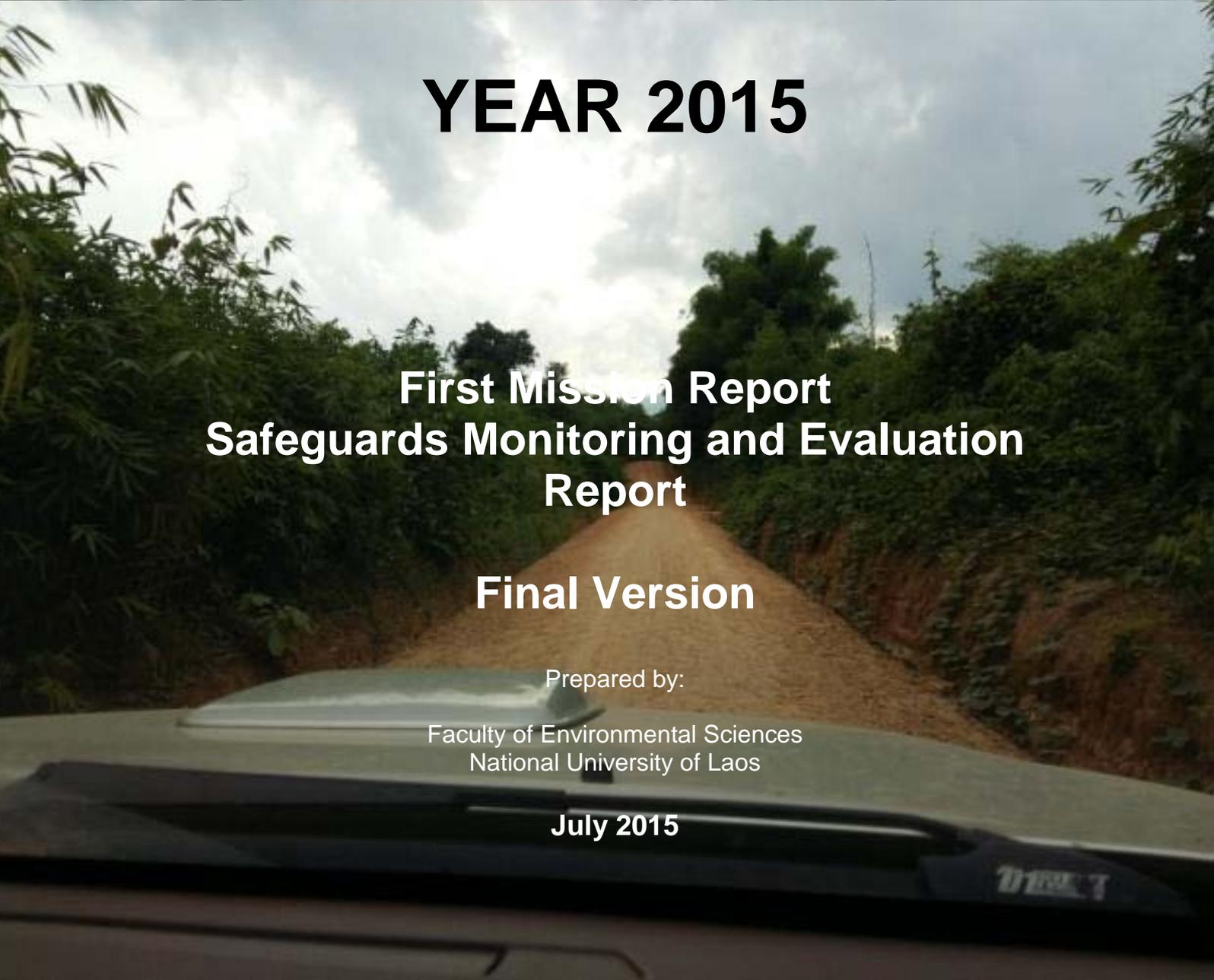




**NORTHERN RURAL INFRASTRUCTURE  
DEVELOPMENT SECTOR PROJECT**

**SAFEGUARDS  
MONITORING OF  
PACKAGE 7-3 FOR**

**YEAR 2015**



**First Mission Report  
Safeguards Monitoring and Evaluation  
Report**

**Final Version**

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## Acronyms

ADB	Asian Development Bank
AH	Affected Household
AP	Affected Person
DAFO	District Agriculture and Forest Office
DBST	Double Bitumen Surface Treatment
CEF	Compensation Entitlement Form
CC	Construction Contractor
DAFOs	District Agriculture and Forestry Offices
DCO	District Coordination Office
DD	Detail Design
DLMA	District and Management Authority
DMF	Design and Monitoring Framework
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
PMU	Project Management Unit
PONRE	Provincial office for Natural Resources and Environment
PPO	Provincial Project Office
PSC	Project Steering Committee
RAPs	Resettlement Action Plans
RP	Resettlement Plans
SIA	Social Impact Assessment
SME	Safeguards Monitoring and Entities
SRI	System of Rice Intensification
USEPA	The United States Environmental Protection Agency
TOT	Training of the Trainer
WU	Women Union
WUGs	Water User Groups

## Executive Summary

### A. Introduction

This safeguard monitoring and evaluation report (first mission for 2015) is to present the results of the field monitoring survey conducted from 23 May to 07 June 2015. Detailed field monitoring survey schedule is attached in the annex 3. The purposes of the first safeguards monitoring mission of 2015 is to monitor and evaluate the implementation progress of EMP, EGDPs, GAPs, and RAPs in 18 subprojects.

The activities undertaken during the mission include consultation with stakeholders e.g. PPOs, DCOs, WUGs, RMCs and AHs, site visits of all subprojects, water sampling and testing of all subprojects, and soil sampling in 3 subprojects. This monitoring considered environmental safeguards potentially caused by subproject activities; concerning water quality both for fundamental and agrochemical parameters, soil quality analysis, waste management on site, erosion/landslide, sediment transport, dust and noise issues. The detailed site inspection for environmental impacts were mainly concentrated to 4 subprojects on going construction. Concerning the social safeguards, the monitoring and evaluation of the implementation progress for the EDGP, GAPs and RAPs. Particular attention was paid for Mongchao-Komaen subproject for 3 AHs. It is found that the good progression has been made for the compensation for the AHs.

At the end of mission in each provinces, the meeting for feedback session was undertaken with the PPO manager of 3 provinces. This is to make sure that they are well informed and understanding of the key findings from the monitoring and evaluation concerning the environmental and social safeguards for further actions of proper mitigation actions.

### 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 NRIDSP 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, 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 needed 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). This includes 3 monitoring missions in 2013 and 2 missions of

2014. There are 9 subprojects of year 2013 and 18 subprojects of year 2014. It was reported in the previous monitoring reports that no severe environmental and social issues confirmed by beneficiary communities. Unforeseen impacts from consequence of improvement of access road from Mongchao to Komaen occurred, and the actions were taken to mitigate such impact s for 3 households (2 at Mongchao and 1 at Komaen village) by compensating with new land plots.

The methodologies applied for the monitoring and evaluation are: screening of IEE reports of subprojects of year 1 and 2, site investigation and random interview of AHs. Approaches also covered the soil and water sampling and analysis, discussion with GIC team and with relevant stakeholders.

In addition to the PPO and DCO, the monitorings 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.

### **C. Organizational Structure for the Environmental and Social Safeguards**

No major change of organizational structures at different levels. The representative from PONREs and DONREs are maintained the membership in the committee at district and provincial levels. A project Environmental Management Offices (EMO) or its equivalent within the PPO with the assistance of the DCO have been established in coordination with line offices.. This is to ensure long-term institutional capacity building.

It was reported from PPOs and DCOs that the percentage of female members in the WUGs and road maintenance committee (RMC) have been increased as previously requested by the project. At least more than 30% of the members are female gender for all subprojects.

### **D. Results of Environmental Safeguards Monitoring**

Site visit of all 18 subprojects were made to investigate general environmental issues. It is found that only 4 out of all subprojects have not been completed. Two of these 4 subprojects are already >90% completed and remaining two subprojects >80%. It was observed that no construction activities potentially would cause negative impact to the environmental condition on site. Key findings of environmental issues are summarized as followings:

#### ***Requirements of environmental permits/clearance:***

As already mentioned in the second safeguards monitoring of year 2014 that IEE reports for all subprojects of year 1 and 2 were accepted. The certificates for those subprojects were approved by the provincial Departments of Natural Resources and Environment of provinces.

#### ***Implementation of EMP and Compliance:***

Most of the construction activities of the subprojects are improvement of the existing infrastructures. The potential negative environmental impact from the subproject activities is quite low. The existing environmental condition in subproject areas are disturbed by the agricultural activities of local people e.g. slash and burning, agro-chemical use, ploughing.

Implementation of EMP for all 18 subprojects has been properly practiced during the construction period. It is now the construction activities of 14 subprojects are completed and therefore, environmental concerns for these 14 subprojects are less or no potential impacts.

Even though other 4 subprojects are not completed and no significant environmental impacts were found or reported. Minor environmental concerns were observed at the camp of Nam Ngaene subproject for the improper management of wastewater and garbage. Similarly, the construction waste was observed at the construction site of Houay Sat subproject, but it is nature of construction site and it was confirmed that the housekeeping and site rehabilitation will be undertaken upon the completion of the construction work. The mitigation measures for the findings were recommended to the PPOs and DCOs to comply with EMP requirement.

In general, It would be no major anticipated environmental concerns for 4 subprojects being constructed and it is assumed that the construction of subprojects would be completed by end of June or early July 2015. It is recommended that the site engineer of PPO and DCO to the construction site shall be trained or empowered for the EMP implementation on construction site.

#### ***Water Quality Monitoring:***

Regular water quality monitoring was carried out during the mission. The water samples were collected in 16 subprojects (no sampling for Mongchao-Komaen and Komaen-Phongsak). Two samples for each Subproject in the locations where the baseline samples were collected in the previous missions. As indicated in the EMP, 9 fundamental parameters were tested and analyzed; some parameters were tested on site with field testing kits and others were analyzed in the lab. 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.

Besides the Nam Ma Oune subproject, a sample for agrochemical parameters was collected and analyzed for Nam Pouk subproject (not covered in the previous missions). This is to investigate the potential load of pesticides in the subproject area due to intensive and increasing banana plantation. The required parameters are: i) Pesticides Organochlorine (Dieldrin, Heptachlor, Heptachlor epoxide, Lindane, Total DDT) ii) 2,4-D iii) ATRAZINE (Laddock), iv) Chlordane v). Pestixides Phosphate group vi) Pesticides Pyrethroid group vii) Pesticides Carbamate group.

The results show no detection of substance load in the samples from both subprojects. All the parameters of 4 groups are detected zero number. It is assumed that the substance is transported by the flow. It is also considered that at the moment of sampling no use of the pesticides therefore no detection. It is confirmed that the chemicals are used time to time periodically. Details of the analysis result sheets are in Annex 1.

#### ***Soil Quality Monitoring:***

As recommended in the second safeguards monitoring report of 2014, the soil samples were collected in 3 subprojects of Nam Ma Oune, Nam Bak and Nam Pouk. The samples were analysed at Thai Central Lab in Khonkaen province; Thailand. The required parameters for the analysis are the same to the ones for water quality. The samples were collected in the agriculture land area close to the banana plantations. The collection soil samples were witnessed by the representative of PONREs, DONREs, PPOs and DCOs as well as village authorities where the subprojects are located. The purpose of the soil sampling and analysis is to support the water quality monitoring analysed results. Results of water and soil analysis would provide more reliable and consistent evidence for decision making.

The result shows no detection of all 55 parameters of 4 main groups (namely: Pyrethroid, organophosphate, carbamate groups) and Atrazine-soil. The soil analysis would be able to clearly claim that banana plantation contribute toxic chemicals to surrounding environment. However, this no detection is questionable whether the soil has not such analysed chemicals or because: 1) soil sampling plots (stations) is not the optimal choice, 2). during this period it is the period of low use or no use of their chemicals, 3). the chemicals used in the plantation areas closed to the sampling plot are not highly intensely and 4). this plantation age is still young (maybe not more than 4-5 years of age) the concentration of the used chemicals accumulated may not so high enough to the point of detection.

#### ***Wastewater Management:***

Potential discharge of wastewater from the slaughterhouse to the irrigation canal of Nam Gngang subproject. The villagers concern of impact of wastewater this slaughterhouse into the canal and finally into their rice paddy. The PONRE confirmed to check this with the owner and finding the solution.

#### ***Aquatic Resources Study:***

The aquatic information was collected in the first mission of year 2014 for all 16 subprojects of year 1 and 2 subproject. No further study of such information in this mission. However, the aquatic resources data and consumption for other 8 subprojects of year 3 will be collected during the mission 2 of year 2015.

#### ***Agro-chemical use Concerns:***

It is obviously found that the land development for banana plantation in subprojects has been extensively increased . Most of the designed command areas of Nam Ma Oune subproject have been changed to banana plantation. Similar trends have been found in other subprojects e.g. Nam Pouk and Nam Bak.

With the increased land area of banana plantation, there will be inevitably more use of agro chemicals in plantation. This would cause negative impact to soil and water quality in the area and vicinity as well as the risk to the health of local people if no proper mitigation measures were taken. Despite the central government office (Prime Minister's Office) issued the notification to northern provinces including Phongsaly, Luang Namtha and Bokeo, no effective implementation has been undertaken.

With the notifications, the PPOs and DCOs shall in coordination with PAFO and DAFO as well as PONRE to follow such notification strictly. More effective implementation and action to minimize of the agro chemical use is required.

## **E. Results of Social Safeguards Monitoring**

### ***Land Acquisition, Resettlement and Compensation***

Likely, social aspect is more obvious things than environmental impact for the subprojects. Review of the relevant reports of subprojects concerning the social safeguards was made. It is found that the proper documentation and implementation processes of social safeguards were properly prepared. The EGP, EGPs, GAPs, and RAPs were studied and prepared for all 18 subproject. Only few of these have some minor impact; mainly related to land acquisition at earlier stage of the subproject implementation. However, all potential impacts were consulted and mitigated through the proper grievance process required by Lao regulation and ADB requirements.

It was already reported and confirmed in the previous safeguards monitoring reports that all the affected lands were <5% of AHs' total productive lands. The AHs were willing to donate for the Project of such land areas voluntarily.

Through the operation of the subprojects, there are 3 households affected from the operation of Mongchao-Komaen subproject; not directly occurred during the construction phase. These include 2 households at Mongchao village whose tea plantation partially affected due to land subsidence and 1 household at Komaen village whose housing land was affected by landslide. The proper process was implemented by the PPO and DCO to mitigate of such impact based on the request of AHs. Consultations with AHs had been regularly held by PPO, DCO and local government as well as safeguards monitoring team. Later, these 3 AHs have been compensated with land by land compensation. During the first monitoring mission of 2015, the safeguards monitoring team met and interviewed the AHs. The compensation was proved by the document as evidence, including the letter of district government's agreement to give the new land plots for these 3 AHs and land use certificate (for 1 AH at Komaen village).

### ***Ethnic Ggroup Development Plan (EGDP)***

Supporting the livelihood improvement for ethnic groups in Subprojects have been regularly carried out by the project. Despite most of all subprojects are in the operation period, PPOs and DCOs still continue to implement different activities of the Project for local people in the subproject areas. The activities include the training, pilot agriculture productions e.g. SRI, peanut, chicken raising and improvement of contract farming system in subprojects. All of these activities are involved by different ethnic group of people.

Main output of the Project implementation is that the ethnic group of people get benefits from the improved infrastructures. Good example of the benefit from the project for the ethnic people was seen at Komaen and other villages along the improved roads of 2 subprojects. Villagers can collect and sell the tea in both dry and wet seasons; more trading and business coming to the villages. In other subprojects, the local people can access to more reliable water supply for irrigation particularly dry season crops.

It is also noted that there is no conflict or dispute among different minority groups of people in the subproject areas involved in the project activities. The different ethnic groups were considered and involved in organizational structures of WUGs and grievance committees at village level to ensure.

### ***Gender Action Plans (GAPs)***

As stated in the previous report that the gender issues is one of the key indicators for the Project implementation. Based on the Project's relevant reports, it is found that women are strongly supported and promoted to involve in the Project implementation. Women have been engaged in different activities of the project. These include consultations, membership to the WUG, trainings, study tours and chicken raising.

With the project target, 30% of representative in the executive committees shall be women. It was confirmed and noted that >30% of executive committees in all 18 subprojects are women. The percentage of female representatives is increased comparing to the second monitoring mission of 2014. This is the effort of Project to promote the women in the project implementation and benefits and more equality between men and women.

Additionally during the safeguards monitoring, It is requested to consider the female participants from PONREs and DONREs to involve during the mission to enhance the capacity of female staff of PONREs and DONREs regarding the environmental management knowledge and skill.

### **Public Participation**

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 of year. This includes the involvement of the public during the IEE studies, consultations, group discussions and field works. 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. With participation of DONRE and PONRE to the monitoring activities raised in year 1, more active engagement was observed during the monitoring of year 2 missions. Both missions of year 2 were joint by the representatives from PONREs and DONREs; including some female participants.

### **F. Community Development and Capacity Building**

The Project have implemented different activities to support and improve the livelihood of the communities in the beneficiary villages in subprojects. The activities practiced are agricultural enhancement and demonstrations. Trainings on chemical use, gender issues and HIV as well as marketing and revolving funding were also undertaken for all subprojects. The trainings are to aim for long term community development and increase their capacity of different knowledge.

From this monitoring mission, It was reported and noted that the project has supported the beneficiary communities to initiate proper contract farming system in 3 pilot subprojects (Namely: Nam Haad, Nam Lan and Nam Bak subprojects). This is to minimize the risk of benefit loss; ensuring the fair trading and securing the crop production of farmers.

Concerning the capacity building, the PPOs and DCOs were trained to understand of Project evaluation process and methodologies. The training covered different contexts of evaluation e.g. socio-economic development, operation and maintenance of infrastructures and environmental and social safeguards. There are totally 307 people and 105 female participants.

### **G. Sustainability of the Project Benefit**

The Project aims at enhancing rural inhabitants' access to, and participation in the market economy to improve food security and livelihoods. It is anticipated that the beneficiary communities will get benefits from the Project with improved infrastructures and more effective agriculture production would help the local communities to get better incomes and livelihood.

However, during the site visit of some subproject, following issues were observed and reported:

- Most of the proposed irrigated agriculture land areas designed for Nam Ma Oune subproject has been developed for banana plantation. It was said that the land lease has been mainly carried out by individual land owner/farmers voluntarily. It is also reported that most of such land releases have no proper documentation and the price is varied among land plots in subprojects. Similar situation or trend was found in other subproject e.g. Nam Bak, Nam Pouk and Nam Dai subproject. This will be main concerns to secure for long-term improvement of people livelihood and the traditional way of living of ethnic groups of people will be changed.
- It was reported during the meeting with communities that more water use at upstream of the subproject for increasing banana plantation. The local communities raised concerns about this because less water available for the agriculture of local people in the irrigated

area or downstream of the subproject. It is reported that the similar situation has been widely occurred in Sing district; not only within the subprojects area of Nam Dai and Houay Luang-Nam Gna 6. With this regard, the technical working group of local government has been set up to find the solution in May. The technical working group is consisted of representative from DAFO, DONRE, District Offices of Planning and Finance, Industry and Commerce and District Cabinet office. The investigation and survey are planned to conducted during the June 2015.

Concerns of insufficient water supply for irrigated areas of subprojects become more and more increased and raised by farmers in some subprojects e.g. Nam Dai 5-6, Nam Tin, Nam Bak and Houay Luang-Nam Gna 6 and and potentially for Nam Pouk. The insufficient water supply; for the agriculture land is mainly caused by diversion of water in the stream or reservoir of weirs into banana plantations. It was reported by the beneficiary people that the some conflict on water use seem to be happened between the owners of banana plantations and local people. It is recommended that the technical working groups should be set up and site investigation and survey of water use is required. The technical working groups would comprise of representatives from sectors, but not limited, e.g. DAFO, DCO, DONRE, Industry and Commerce of district and cabinet office of district. The proposed solution and mitigation measures will then reported to provincial levels for action.

# 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 NRIDSP 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, 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.

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. This report summarizes the findings of the first safeguards monitoring of 2015 by the independent monitoring team.

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 2013 and 2 missions of 2014. There are 9 subprojects of year 2013 and 18 subprojects of year 2014. It was reported in the previous monitoring reports that no severe environmental and social issues. Even though unforeseen impact from consequence of improvement of access road from Mongchao to Komaen, but the actions were taken to mitigate such impact for 3 households (2 at Mongchao and 1 at Komaen village).

The main purpose of first safeguards monitoring mission of year 2015 is to monitor and evaluate the implementation progress of the EMP, EGPs, GAPs, and RAPs in 18 Subprojects.

In addition to the PPO and DCO, the monitorings 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.

The methodologies applied for the monitoring and evaluation are: screening of IEE reports of subprojects of year 1 and 2, site investigation and random interview of AHs. Approaches also covered the soil and water sampling and analysis, discussion with GIC team and with relevant stakeholders.

## **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 second monitoring mission of 2014 by the safeguards monitoring team;
- Reflect the facts on the progress of the implementation of the environmental and social management plans in 18 subprojects during the first 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 Strategies**

The approaches applied for the first 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 18 subprojects provided by GIC. This includes the results of environmental mitigation measures performed, land acquisition and compensation measures, gender action plan implemented, ethnic minority groups and vulnerable people supported and kdy finding of compliance with the EMP, GAPs, EGDPs and RAPs.
- 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.

- Site visit on the subproject sites and observation as well as interaction with site engineer 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 issues observed.
- Soil and water sampling with positioned locations (see section 4.4)
- Review and assessment of implementation progress of instructions given in the previous missions.

#### **1.4 Scope of Study**

With the given TOR, The main task of safeguards monitoring is to assess the progress of environmental and social management and compliance with the EMPs, EGDPs, GAPs, and RPs, identifying constraints and developing remedial actions to effectively address.

The scope of works for Package 7-3 is summarized below:

- 1) To review the feasibility reports of 26 subprojects of year 1, 2 and 3 (not monitored for the first mission of 2015):

The feasibility reports include the annexes of i) Social Impact Assessment (the EGDPs, or IPPs and the GAPs), ii) Initial Environmental Examination (the EMPs), and iii) Land Acquisition and Resettlement Plan (the RPs);

- 2) To review the safeguards monitoring reports 2014 covered 18 subprojects of year 1 and 2: The safeguards monitoring for 2014 as Package 7-2 was carried out by Faculty of Environmental Sciences, National University of Laos;

- 3) To review the participation and disclosure:

The SME will assess the adequacy of: i) process such as participation, consultation, grievance resolution, ii) integration of gender vulnerable groups and ethnic minority into planning and implementation of activities; and iii) mitigation of environmental impacts with respect to the EGDPs, GAPs, EMPs and RPs;

- 4) To develop a monitoring and assessment plan:

The SME will develop a monitoring and assessment plan responding to the scope of works outlined in these terms of reference including the detailed field survey plan;

- 5) To conduct field monitoring survey:

The SME will conduct field monitoring survey according to the monitoring plan by interviewing the concerned households as well as the project staff of PPOs and DCOs visiting 18 subproject sites for the 1st mission of 2015, and 26 subproject sites for the 2nd mission of 2015 and thereafter;

## 6) To conduct water quality monitoring:

Refer to the water quality monitoring for 2014 conducted in Package 7-2 by Faculty of Environmental Sciences, National University of Laos, the SME will conduct the water quality monitoring for 2015 and 2016 for all the ongoing irrigation subprojects. In addition, the following water quality analysis (parameters) should be added for the monitoring of i) Nam Ma Ounesubproject in Long district, Luangnamtha province, and ii) Nam Pouk subproject in Houayxai district, Bokeo province. (2 sites x 4 times = 8 samples in total);

Additional Water Quality Parameters for Nam Ma OuneSubproject:

i) Pesticides Organochlorine (Dieldrin, Heptachlor, Heptachlor epoxide, Lindane, Total DDT); ii) 2,4-D; iii) ATRAZINE (Laddock) iv) Chlordane; v) Pesticides Phosphate group; vi) Pesticides Pyrethroid group; and vii) Pesticides Carbamate group;

## 7) Additionally, to conduct soil quality monitoring:

Besides the water, Soil quality monitoring is added for i) Nam Ma Oune; and ii) Nam Bak subprojects in Long district, Luangnamtha province, and iii) Nam Pouk subproject in Houayxai district, Bokeo province (3 sites x 2 times = 6 samples in total).

Parameters required for soil analysis are:

i) Pesticides Organochlorine (Dieldrin, Heptachlor, Heptachlor epoxide, Lindane, Total DDT); ii) 2,4-D; iii) ATRAZINE (Laddock) iv) Chlordane; v) Pesticides Phosphate group; vi) Pesticides Pyrethroid group; and vii) Pesticides Carbamate group

**Output Monitoring:**

To 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.

## 2 Project Description

There are totally twenty six (26) subprojects to be monitored for Package 7-3, nine (9) subprojects of Year 1 and nine (9) subprojects of Year 2 and eight (8) subprojects of year 3 in nine (9) districts of the three (3) provinces of Bokeo, Luang Namtha and Phongsaly. However, only 18 Subprojects were monitored during the first mission of package 7-3 (see the table 2-1). All the feasibility reports including i) the EMPs; ii) the EGDs (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
<b>Packages of Services for Safeguard Monitoring</b>	7-1		7-2		7-3			
No. of subprojects to be monitored	9		18		18 - 26		26	
Year 1 (9 subprojects)	○	○	○	○	○	○	○	○
Year 2 (9 subprojects)	-	-	○	○	○	○	○	○
Year 3 (9 subprojects)	-	-	-	-	-	○	○	○

Note: ○ = subprojects to be monitored.

The progress of the construction was reported by PPOs, DCOs and contractors in subprojects during the field mission in May-June 2015. It was reported and observed that the construction works in 14 subprojects have been completed. 4 other subprojects are >80% completed and they are expected to be completed by end of June 2015 (see the Table 2-2). The progresses of other subprojects are varied. The work progress of the subprojects can be 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 May 2015)	
					Bidding	Construction
1	Bokeo	Houayxai	Nam Tin Irrigation	1	-	100%
2			Nam Pouk Irrigation	2	-	100%
3		Paktha	Houay Xo Irrigation	1	-	100%
4			Houay Sat Irrigation	2	-	80.04%
5		Pha Oudom	Nam Haad Right Bank Irrigation	1	-	100%
6			Nam Haad Left Bank Irrigation	2	-	100%
7	Luang Namtha	Long	Nam Ma Oun Irrigation	1	-	100%
8			Nam Bak Irrigation	2	-	100%
9		Namtha	Hong Kong Irrigation	1	-	100%
10			Nam Ghang Irrigation	2	-	100%
11		Sing	Nam Dai (V) and (VII)	1	-	100%

			1Irrigation			
12			Nam Gna (VI) and Houay Luang Irrigation	2	-	85.01%
13	Phongsaly	Boun Tai	Nam Lan Irrigation	1	-	100%
14			Nam Ngaene (Nawai) Irrigation	2	-	96.04%
15		Nhot Ou	Nam Ou Irrigation	1	-	100%
16			Nam Thae Irrigation	2	-	92.7%
17		Phongsaly	Mongchao-Koamen Irrigation	1	-	100%
18			Koamen-Phonsaek Irrigation	2	-	100%

Sourced: PPOs and DCOs as of mid-end of May 2015

## 2.1 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 8.29x10<sup>6</sup> m<sup>3</sup> 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 original design of the system has a total of 760 ha of the command area, among which 450 ha is covered by RMC with a total length of 7.4 km, and 310 ha is covered by LMC with a total length of 5.0 km. 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

## 2.2 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. There is an existing weir along the Nam Pouk stream, constructed in 1992 with EU funding. 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.)(earth canal improvement) of 3,510 m.

## 2.3 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.

## 2.4 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. The structure at Phouvat is a concrete weir constructed in 2009 by the government with contribution in labor from the villagers. 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 ( 72.19% completed) and MC2 (2550 m)-49.43% completed.
- Road from farm to market: rehabilitation of access road from farm to market ( 825 m)-100% completed

## **2.5 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. This water will be used for downstream irrigation of an existing 90 ha irrigated area and for the development of an additional 60 ha of land suitable for paddy development (already cleared and under seasonal production) on the right bank of the Nam Haad River.

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.

## **2.6 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: i) Pha Oudom; ii) Thinkeo; iii) Phonxay; iv) Ponglard; v) Sibounheuang; vi) Phiengkham; vii) Xaysavang; viii) Namkha; ix) Somsavang; x) Xayoudom; and xi) Donsavanh. The subproject beneficiaries is 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.

## 2.7 Nam Ma Oune Irrigation 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 Oune is 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 Oune River 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 to 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.

## 2.8 Nam Bak Irrigation Subproject

### • Pre-Construction Information

The Nam Bak 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. Weir 1, however, is not operational as the elevation of the location is lower than the desired elevation of the main canal for Weir 1. Weirs 1, 2, 3, and 5 get water from the Nambak Nyai, Weir 4 from the Nambak Noi and Weir 6 (actually an intake) from the Nam Ma River. The existing scheme irrigates a wet season command area of 217 ha.

### • Completed Construction Works

Main completed works are:

- Head work 1, MC1 lining of 950 m, 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.

## 2.9 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 Gneane, 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

## 2.10 Nam Gngang Irrigation Subproject

### • Pre-Construction Information

The Nam Gngang 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 Ngaen, Khone, Luang , HuaKua, Thong Ome, Vieng Neua, Vieng Tai and Nam Chang with about 1,900 HHs and a population of 10,189.

Nam Gngang is an existing scheme that diverts water from the Nam Gngang 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 Gngang 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. There are no water control and regulation structures at the intake and along the main canal. During dry season when water is scarce, the weir is provided with supplemental water from the Nam Ngaen River through a diversion canal fed by the left side intake of the Nam Ngaen Weir.

### • Completed Construction Works

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

## 2.11 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) to 128 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.

## **2.12 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.

Nam Yaluang is an earth dam of 8 m height and an 18 m spillway. The reported design storage capacity is about 220,000 m<sup>3</sup>, 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.

The Nam Gna 6 and Houay Luang Schemes are reported to have been constructed by the Lao Government in 2003 with community participation of labor and local materials. The construction of the Yaluang Scheme amounted to approximately 2.7 billion Kips.

- **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.

## **2.13 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. The district authorities together with

the Nawai villagers propose to extend the canal about 1 km crossing the village road to the existing paddy area of another 48 ha. 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 water source is Nam Lan river and the existing weir can be reached by a 2.0 km walk along the main canal from the village road of Ban Nawai. 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.

## 2.14 Nam Ngaene Irrigation Subproject

- **Pre-Construction Information**

Nam Ngaene 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. 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 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 Ngaene 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-74.42% completed, LMC(1720 m)-860m completed as planned, earth canal completed 95% out of 860 m, RMC canal lining of 1700m-completed, RSC1-90% completed, RSC-100% completed.

## 2.15 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.

## 2.16 Nam Thae Irrigation Subproject

### • Pre-Construction Information

The Nam Thae irrigation Subproject is located in the Nhot Ou District (Figure 2), 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-74.42% completed, LMC (1720 m)-canal lining 860 m completed and earth canal 95% completed, RMC canal lining of 1,700 m completed, RSC1-90% completed, RSC2- completed.

## 2.17 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 Phongsak 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.

## 2.18 Kormaen-Phongsak Road Subproject

The proposed subproject, Kormaen-Phongsak 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-Phongsak subproject road continues for a further 10.3 km and terminates at Phongsak village school which lies in a northeasterly direction from the starting point.

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

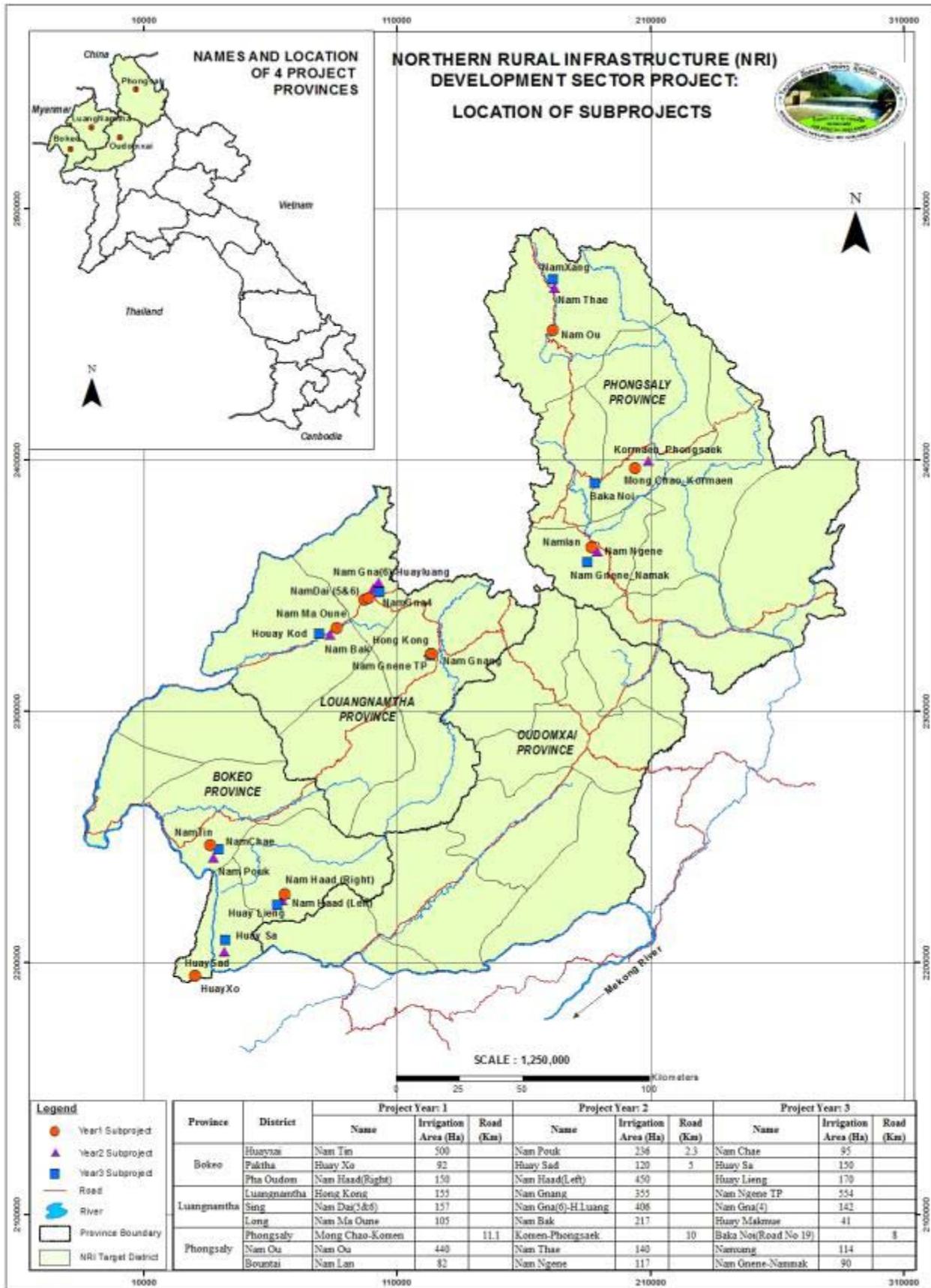


Figure 2-1 Map of the project location and Subproject sites of year 1 and 2

## **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 (see Table 3-1). 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.

In general, the organizational structures at different levels been not been updated; the sectors involved in the PPO and DCO remain the same. However, some individual members are or will be seconded due to administration reformation of local government bodies. The with draw or replacement of someone in the PPOs and DCOs will not cause major impact on the implementation of Environmental and social safeguards. The details of sectors involved in PPO and DCO are reported in the previous safeguards monitoring reports.

### **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 has 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.

As most of subprojects are now on operation and most of the potential environmental and social impacts were occurred during the construction or rehabilitation. Mitigation measures were addressed and actions were taken by EMO. However, the environmental and social monitoring of subprojects need to be continued; for water quality, water resources, social impacts and other issues as well as benefits which are consequences subprojects' implementation.

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 include 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

First safeguards monitoring mission of 2015 was undertaken between 23 May-7 June 2015. The Mission covered for all subprojects; including site visit and water sampling. However, the detailed site inspection of the environmental impacts mainly concentrated to 4 subprojects of ongoing construction. 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 4.3.

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 between 100 - 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. The assessment for these development projects shall be approved with the certificate from MONRE or PONRE prior implementation of such development.

For the NRI, all subprojects are categorized as B; mainly improvements of the existing infrastructures only. The IEEs for the subprojects revealed that potential negative impacts can be mitigated by adhering to the EMP prepared for the Subproject. No further assessment is therefore required (Feasibility Studies).

With above-mentioned requirements, the IEE reports including EMP for Subprojects were drafted in 2012 (year 1 subprojects) and March 2013 (subprojects of year 2) accordingly. These reports were submitted to PONREs for review and consideration in order to issue the IEE certificates for the subprojects.

The IEEs of 18 subprojects were officially approved by the PONREs in each province during late 2013 and early 2014. The IEE certificates for subprojects of year 1 and 2 are presented in the Annex 1 of previous safeguards monitoring reports.

### 4.2 Institutional Arrangement for Environmental Management and Monitoring

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; particularly PONREs and DONREs. The role and responsibility of EMO are to ensure that the environmental and social impacts are appropriately managed and mitigated in compliance with the ADB Safeguards Policy and relevant regulations of Lao PDR.

The EMO or its representative have participated in subproject activities. Besides joining with the independent safeguards monitoring, it was reported that the EMO in coordination with PONREs and DONREs have carried out monitoring on subprojects in quarterly basis.

### 4.3 Environmental Compliance Status

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:

- Soil erosion, silt and sediment deposition;
- Hazardous/chemical waste and material;
- Disturbance of water flows;
- Potential dust and noise nuisance;
- Use of private land for storage and work depots;
- Waste management;
- Insufficient use and distribution of irrigation water during the cultivation period;
- Water quality; and
- Aquatic and terrestrial biology

In addition to the water quality, the soil quality assessment was included in this mission.

As mentioned above, construction of 14 subprojects are already completed and they are now on operation. No consequent environmental impacts were observed or potentially to be happened (except for the landslide at Mongchao-Komaen road). Likely Potential environmental impacts mainly in the operated subprojects' areas would be caused only by activities of local communities. This includes e.g. chemical use for plantation and agriculture, land use change due to increase agriculture land and urbanization, improper sanitation systems and other development projects.

During the Mission, only 4 subprojects were being on the progress of construction works. Therefore, the potential environmental impacts would mainly occurred in these subprojects rather than other 14 operated subprojects.

The details of implementation for environmental management and outstanding issues observed during the mission in 18 subprojects are presented as follow:

#### 1). Nam Tin Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	

Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.	water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
Reportedly some areas cannot received sufficient water from the improved structures because more water extraction by the increasing banana plantations in from the system of subproject.	It is recommended that the PPO and DCO shall investigated and discuss with stakeholders for solution

## 2). Nam Pouk Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.	water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints on Subproject received by village authorities and DCO.	No action or mitigation required

### 3) Houay Xo Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.	water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints or issues raised by beneficiary people	No action or mitigation required

### 4). Houay Sat Irrigation Subproject (Ongoing construction)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition:</b>	
No major concern of soil erosion and sediment transport observed on site even though some concrete work on river bank was found at weir of Na Pong. It was confirmed the scope of work is very small and to be completed within few days.	Recommendation was given to site engineer



Photos of the construction activities for bank protection along the river bank; which potentially cause sediment transport and water quality; dated 4 June 2015.

#### **Disturbance on Water Flow**

No direct disturbance on flow even though replacement of new concrete weir structure.

Environmental flow at downstream is required during the operation of the system.

#### **Dust and Noise Nuisance**

No potential dust and noise concerns as construction location is very far from residential area and no operation of heavy machine.

No action and mitigation measures required.

#### **Borrow Pits/Quarry**

Construction materials; including aggregate and sand for concrete work was supplied by the local supplier sourced from Mekong river bank.

No action and mitigation measures required

#### **Waste Management**

Temporary camp was established on site. the pits for domestic waste was provided. Only the construction waste; mainly wood, was found around the camp and construction area.

It is confirmed that the construction waste will be removed from the site.



Photos show the waste management and housekeeping in the construction site at Houay Sat construction site; dated 4 June 2015.

### Construction Camp

Temporary structures for accommodation for 5-6 people and storage for construction material were placed on site.

It is confirmed that the construction work will be completed within few days and all temporary structures will be displaced.

PPO and DCO should make sure that upon the completion of the construction work, the rehabilitation and cleaning of those huts shall be made.

### Hazardous/Chemical Waste

No chemical material and waste was observed on site.

No action and mitigation measures required.

### Water Quality

The quality of water in the stream would potentially be affected from the construction

The details of the water quality analysis result is described in the section 4.6

It is recommended that the collection of upstream and downstream water sampling should be continued.

### Traffic and Safety

Potential road accident or safety risk is minimal as the construction activities of the Subproject are distant from the residential area and However, the access road to the construction site is also used by the farmers to their paddy fields

It is recommended that the advice of safe driving should be given to the drivers of the Contractor.

### Terrestrial and Aquatic Biology:

The information of terrestrial and aquatic resources for this Subproject was included in the first safeguards monitoring report- Annex 5 of 2014.

No action required

### Environmental Monitoring

Besides the safeguards monitoring, no other formal

If no formal monitoring of PONRE or DONRE, the PPO/DCO site

environmental monitoring.	engineer shall be responsible for time-to-time environmental inspection on site
<b>Community perception</b>	
The villagers requested the PPO and DCO to complete the construction work soon so that they can start the rice cultivation	It is expected that the system can be operated soon.

#### 5). Nam Haad Right Bank Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.	water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required

#### 6). Nam Haad Left Bank Irrigation Subproject (Operation).

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	

No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.	water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required
<b>Community perception</b>	
No complaints from the beneficiary communities	No action or mitigation required

### 7). Nam Ma Oune Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern caused by project. However, large area of irrigation command area has been ploughed for banana plantation. This would lead to high sediment load and transportation in Nam Ma Oune	No action or mitigation required
<b>Disturbance on Water Flow</b>	
High volume of water required for water use in banana plantation would cause negative impact on downstream flow	PPO and DCO in coordination with local government should find the proper mitigation measure to minimize the potential impact on water flow
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	

No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.	water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
Increasing water use for banana plantation will potentially affect the aquatic habitat due to change of downstream flow. Additionally, agrochemical use in banana plantation would also affect the terrestrial habitants.	PPO and DCO in coordination with local government should find the proper mitigation measure to minimize the potential impact on water flow and aquatic biodiversity
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required

#### 8). Nam Bak Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern caused by project. Similar to Nam Ma Ounesubproject, large area of irrigation command area has been ploughed for banana plantation. This would lead to high sediment load and transportation in Nam Bak	No action or mitigation required
<b>Disturbance on Water Flow</b>	
High volume of water required for water use in banana plantation would cause negative impact on downstream flow	PPO and DCO in coordination with local government should find the proper mitigation measure to minimize the potential impact on water flow
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	

No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this subproject was conducted at the same location where previously collected.	Water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
Increasing water use for banana plantation will potentially affect the aquatic habitat due to change of downstream flow. Additionally, agrochemical use in banana plantation would also affect the terrestrial habitants.	PPO and DCO in coordination with local government should find the proper mitigation measure to minimize the potential impact on water flow and aquatic biodiversity
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required
<b>Community perception</b>	
Very good feedback was received from the village authorities and villagers during the consultation.	No action required

#### 9). Hong Kong Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this subproject was conducted at the same location where previously collected.	Water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction wWk for subproject	No action or mitigation required

<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required

#### 10). Nam Gngang Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
<p>Potential discharge of wastewater from the slaughterhouse to the irrigation canal of Nam Gngang subproject. The villagers concern of impact of wastewater this factory into the canal and finally into their rice paddy. The PONRE confirmed to check this with the owner and finding the solution.</p> <p>Water sampling at upstream and downstream of this Subproject was conducted at the same location where previously collected.</p>	<p>Proper mitigation measures for wastewater management for this factory to prevent the discharge of wastewater into the irrigation canal.</p> <p>water quality monitoring should be continued.</p>
	<p>The photo shows the location of the slaughterhouse close to the irrigation canal of subproject and potential of discharge of wastewater from the slaughterhouse to the canal. on the other hand the 2 plastic pipes from the canal connected to the fish pond of private owner.</p> <p>Photo was taken on 30 May 2015</p>
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required

<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
The villagers raised concern of water diversion from irrigation canal into private fish ponds	PPO and DCO will coordinate with owner of fish ponds

### 11). Nam Dai Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern caused by project. Similar to Nam Ma Oune subproject, large area of irrigation command area has been ploughed for banana plantation. This would lead to high sediment load and transportation in Nam Bak.	No action or mitigation required
<b>Disturbance on Water Flow</b>	
High volume of water required for water use in banana plantation would cause negative impact on downstream flow and ecological system.	PPO and DCO in coordination with local government should find the proper mitigation measure to minimize the potential impact on water flow
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this subproject was conducted at the same location where previously collected.	Water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
Increasing water use for banana plantation will potentially affect the aquatic habitat due to change of downstream flow. Additionally, agrochemical use in banana plantation would also affect the terrestrial habitants.	PPO and DCO in coordination with local government should find the proper mitigation measure to minimize the potential impact on water flow and aquatic biodiversity
<b>Environmental Monitoring</b>	

Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required

## 12). Nam Gna 6-Houay Luang (Construction)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No potential erosion and sediment transport observed on site. Main construction activities completed	Rehabilitation along the canal sides where necessary upon the completion of earth works is required.
<b>Disturbance on Water Flow</b>	
The flow of Houay Luang is blocked by the earth dam; water stored in the reservoir and no environmental flow at downstream. For Nam Gna 6, the natural water flow is very low even though no disturbance of improved structures. This seems to become normal during dry season	No action or mitigation required
<b>Dust and Noise Nuisance</b>	
- Dust is common in the area because the main access road is dirt road and more public transportation. No dust and noise issues potentially caused by the subproject activities on site. Most of the construction activities are completed.	No action or mitigation required
<b>Borrow Pits/Quarry</b>	
No borrow pit and quarry on site. Aggregates for construction were supplied by the local supplier.	No actions or mitigation required
<b>Waste Management</b>	
No waste observed on construction site. No temporary construction camp on site.	No actions or mitigation required
<b>Construction Camp</b>	
all temporary facilities found in last mission are displaced and site rehabilitation was undertaken.	No actions or mitigation required
<b>Hazardous/Chemical Waste</b>	

No storage of hazardous material was found on site and no spillage and leakage. The hazardous material is regularly delivered to the site from the local gas station	PPO and DCO should always advise the Contractor to carry out safe and proper handling of the hazardous material/waste
<b>Water Quality and Water Resources</b>	
Water sampling at upstream and downstream of this subproject was conducted at the same location where previously collected.	Water quality monitoring should be continued.
<b>Traffic and Safety:</b>	
Only few trucks and heavy machines remained on site	It is recommended that the Contractor should be advised on traffic safety particularly for the drivers.
<b>Terrestrial and Aquatic Biology</b>	
- The information of terrestrial and aquatic resources for this Subproject was included in the first safeguards monitoring report- Annex 5	- Minimum flow should be released during both wet and dry season for Houay Luang to maintain the water level for aquatic resources and habitat during the operation.
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints on Subproject received by village authorities and DCO Villagers are very supportive for the project	No action or mitigation required

### 13). Nam Lan Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion and sediment control concern	No action or mitigation required
<b>Disturbance on Water Flow</b>	
No potential impacts observed	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No concern on dust and noise issues	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction work.	No action or mitigation required.
<b>Waste Management</b>	
No construction work	No action or mitigation required
<b>Construction Camp</b>	
No construction work	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities.	No action or mitigation required
<b>Water Quality</b>	

Water sampling at upstream and downstream of this subproject was conducted at the same location where previously collected.	Water quality monitoring should be continued.
<b>Traffic and Safety</b>	
No construction of subproject.	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required

#### 14). Nam Ngaene Irrigation Subproject (Construction)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion issue was observed. Most of the earth work and main construction activities are completed.	It is recommended that the PPO and DCO should advise the Contractor for site rehabilitation; particularly inside the paddy fields.
<b>Disturbance on Water Flow</b>	
The improvement for the main weir structure is only change of intake gates only and already completed. the disturbance of flow of Nam Ngaene is only from the weir structure	It is recommended that during the operation the minimum flow should be released to the downstream during the high demand for irrigation to maintain the water required for aquatic resources.
<b>Dust and Noise Nuisance</b>	
Most of dust and noise problem would be concern of the villagers as the temporary construction camps located very close to the communities. This includes the parking of heavy machine and trucks nearby.	The recommendation was given in the previous mission, but no actions taken. It was confirmed during this mission that the temporary construction camp will be moved out from the site soon as the construction works will be completed by end of June.
<b>Borrow Pits/Quarry</b>	
The construction material e.g. aggregate and sand was sourced from Nawai and Bountai villages (no borrow	No actions or mitigation required

pit/quarry).	
<b>Waste Management:</b>	
<p>Poor waste management was observed at the temporary camp, no proper housekeeping; including wastewater from the camp. It is not acceptable condition for health, safety and environment.</p>	<p>It is recommended that the PPO and DCO in coordination with the contractor and DONRE to take immediate action. The PPO and DCO; particularly site engineer shall check and monitor the general housekeeping and waste management on site. Site rehabilitation is strongly required.</p>
	<p>This photo shows the evidence of the poor housekeeping and waste management; including wastewater. photo was taken on 28 May 2015</p>
<b>Construction Camp</b>	
<p>The temporary camp have been installed since second mission of 2014 close to the residential area which would cause potential impact to the community. It is not acceptable construction camp; in terms of health, safety and environment.</p>	<p>It was confirmed by the PPO, DCO and the contractor that the facilities will be moved out soon</p>
<b>Hazardous/Chemical Waste</b>	
<p>No hazardous material observed on site</p>	<p>It is recommended that the proper handling of chemical material on site should be advised to the site engineer when the construction work is started again.</p>
<b>Water Quality and water resources</b>	
<p>Even though the construction of Subproject was completed, the water sampling at upstream and downstream of this subproject was conducted at the same location where previously collected.</p>	<p>It is recommended that the collection of upstream and downstream water sampling should be continued.</p>

It is concerned of the domestic wastewater from the temporary camp.	The immediate action and solution for wastewater from the camp is strongly recommended.
<b>Traffic and Safety:</b>	
As the accommodation camp located very close to the communities. There would be potential risk of accident from the traffic and transportation of subproject.	It is recommended that the Contractor should be advised on traffic safety particularly for the drivers. This includes of finding alternative parking area of trucks and heavy machines.
<b>Terrestrial and Aquatic Biology</b>	
No concerns of terrestrial and aquatic biology	No action or mitigation required
<b>Environmental Monitoring</b>	
Besides the regular independent safeguards monitoring, DONRE has conducted time-to-time monitoring.	It is recommended that DONRE should continue the environmental and social monitoring regularly.
<b>Community perception</b>	
Some villagers close to the construction camp complaint about the waste management.	It is recommended that the PPO and DCO in coordination with the contractor shall take immediate action for housekeeping and rehabilitation

#### 15). Nam Ou Irrigation Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition</b>	
No erosion or sediment load caused by the Subproject activities. The high sediment load in the river is caused by the activities of the crushing plant at upstream of the weir structure.	PONRE and DONRE should regularly monitor of this activities to minimize the potential impact on water quality
<b>Disturbance on Water Flow</b>	
No construction activities, the flow disturbance is only caused by the weir structure.	No action or mitigation required.
<b>Dust and Noise Nuisance</b>	
No construction activities of subproject	No action or mitigation required.
<b>Borrow Pits/Quarry</b>	
No construction activities	No action or mitigation required
<b>Waste Management</b>	

No construction	No action or mitigation required
<b>Construction Camp</b>	
No construction camp	No action or mitigation required
<b>Hazardous/Chemical Waste</b>	
No construction activities of subproject	No action or mitigation required
<b>Water Quality</b>	
Water sampling at upstream and downstream of this subproject was conducted at the same locations where previously collected.  The details of the water quality analysis result is described in the section 4.4	It is recommended that the collection of upstream and downstream water sampling should be continued.
<b>Traffic and Safety</b>	
No construction	No action or mitigation required
<b>Terrestrial and Aquatic Biology</b>	
No construction work for subproject that would cause negative impact to terrestrial and aquatic biology	No action or mitigation required
<b>Environmental Monitoring</b>	
Only the Independent Safeguards Monitoring	Safeguards monitoring should be continued for this subproject
<b>Community perception</b>	
No complaints from beneficiary communities	No action or mitigation required

#### 16). Mongchao-Koman Road Subproject (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition:</b>	
Apart from existing landslide at Mongchao village, no new occurrence of erosion or landslide areas were observed on site.	The recommendation was given during the first safeguards monitoring report of year 2
<b>Disturbance on Water Flow</b>	
No disturbance on flow of river/stream, the culvert along the road were installed	No action required
<b>Dust and Noise Nuisance</b>	
No construction activities of subproject	No action and mitigation measures required
<b>Borrow Pits/Quarry</b>	

No construction activities of subproject	No action and mitigation required
<b>Waste Management:</b>	
No construction activities of subproject	No action and mitigation required
<b>Construction Camp</b>	
No construction activities of subproject	No action and mitigation required
<b>Hazardous/Chemical Waste:</b>	
No construction activities of subproject	No action and mitigation required
<b>Water Quality:</b>	
No water sampling and analysis for this Subproject	No action and mitigation required
<b>Traffic and Safety:</b>	
No construction and transportation activities of Subproject	No action and mitigation required
<b>Terrestrial and Aquatic Biology:</b>	
As no construction activities for this Subproject, No issues raised and reported on terrestrial biological impacts.	No action and mitigation required
<b>Environmental Monitoring</b>	
No construction activities of subproject, but the monitoring of landslide is regularly implemented; including the communication with 2 AHs.	Regular monitoring shall be continued to check the potential land slide; particularly during the wet season
<b>Community perception</b>	
issues of landslide of tea plantation of 2 HHs at Mongchao village and 1 AH at Komaen have been mitigated through the compensation with new land plots. No other comments or complaints associated with subproject..	It is recommended that the public hearing of concerning issue should be regularly practiced.

### 17). Komaen-Phongsak Road (Operation)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b>Soil erosion, silt and sediment deposition:</b>	
No erosion and landslide observed during the site visit..	It is recommended that the PPO and DCO shall monitor the condition of erosion/landslide that would occurred during the wet season; particularly for the very steep slope.
<b>Disturbance on Water Flow</b>	
The culverts have been installed where necessary as per design	No action or mitigation measures required

<b>Dust and Noise Nuisance</b>	
No construction of subproject	No action or mitigation measures required
<b>Borrow Pits/Quarry</b>	
No construction of subproject	No action and mitigation measures required
<b>Waste Management</b>	
No construction of subproject	No action and mitigation measures required
<b>Construction Camp</b>	
Construction camp is removed	No action and mitigation measures required
<b>Hazardous/Chemical Waste</b>	
No construction of subproject	No action and mitigation measures required
<b>Water Quality</b>	
No water sampling and analysis for this Subproject.	No action required
<b>Traffic and Safety</b>	
No construction of subproject	No action and mitigation measures required
<b>Terrestrial and Aquatic Biology</b>	
No construction of subproject	No action and mitigation measures required
<b>Environmental Monitoring</b>	
No construction activities of subproject, but the monitoring of landslide should be implemented;	Regular monitoring shall be continued to check the potential land slide; particularly during the wet season
<b>Community perception</b>	
Communities along the improved road gave good feedback for the improvement of the road	It is recommended that the public hearing of comments should be regularly practiced.

### 18). Nam Thae Irrigation Subproject (Construction)

<b>Disturbance of water flows</b>	<b>Proposed mitigation and required action</b>
<b><i>Soil erosion, silt and sediment deposition</i></b>	
No erosion and sediment load caused by Subproject activities. Most of all construction works are almost completed	Upon the construction work completed, the site rehabilitation is required
<b>Disturbance on Water Flow</b>	
No construction activities that would cause the impact on flow; excepting the improved weir structure.	It is recommended that during the operation the minimum flow should be released during dry season.
<b>Dust and Noise Nuisance</b>	
No potential sources of dust and noise pollution from the subproject. Only few trucks and heavy machines and the	No action or mitigation required

construction site is far from communities	
<b>Borrow Pits/Quarry</b>	
No material sourced in the subproject area. Construction materials are supplied by suppliers	No actions or mitigation required
<b>Waste Management</b>	
No construction waste and general waste were observed.	Any construction wastes shall be removed from the construction site
<b>Construction Camp</b>	
Agricultural huts of the villagers were used as the temporary accommodation during the construction.	It is recommended that PPO and DCO have to check whether no damage or destruction of the villagers' agricultural huts which used as temporary accommodation and rehabilitation is required
<b>Hazardous/Chemical Waste</b>	
No hazardous material/waste storage and spillage/leakage were observed on site. fuel is delivered by supplier from the town	It is recommended that the PPO and DCO should advise the contractor for the proper chemical material/waste management.
<b>Water Quality</b>	
<p>No construction activities that would cause negative impact to the stream by subproject.</p> <p>During the site visit, one pumping machine of private business was installed at the reservoir area of subproject. This pump is used to extract the aggregate and sand from the reservoir and causing negative impact to the water quality. Consequently, this will lessen the water to be supplied for irrigated agriculture land areas as the water is pumped to downstream of the weir.</p> <p>Water sampling at upstream and downstream of this Subproject was conducted at the same locations where previously collected.</p> <p>The details of the water quality analysis result is described in the section 4.4</p>	<p>It is recommended that the collection of upstream and downstream water sampling should be continued for basic parameters.</p> <p>The PPO and DCO should coordinate with village authority and owner to find the solution to minimize the impact on water quality and water use of farmers.</p>
	
<p>These photos show the evidence of the aggregate and sand extraction from the reservoir area of Nam Thae subproject; causing negative impact to downstream water quality and water use of local farmers. Photos were taken on 27 May 2015.</p>	

<b>Traffic and Safety:</b>	
No traffic and safety concern due to the location of the Subproject.	It is recommended that the Contractor should be advised on traffic safety particularly for the drivers.
<b>Terrestrial and Aquatic Biology</b>	
The information of terrestrial and aquatic resources for this Subproject was included in the first safeguards monitoring report- Annex 5 of 2014	Minimum flow should be released during both wet and dry season to maintain the water level for aquatic resources and habitat during the operation.
<b>Environmental Monitoring</b>	
No construction activities of subproject, but the monitoring of landslide should be implemented;	Regular monitoring shall be continued to check the potential land slide; particularly during the wet season
<b>Community perception</b>	
The WUG and village authority raised the concern of aggregate extraction at upstream of the weir as this would affect the water use for agriculture.	The PPO and DCO will coordinate with the owner of the business and village authority to find the mitigation measures.

#### 4.4 Water Quality Monitoring

##### 4.4.1. Fundamental Parameters

The baseline data for water quality of 16 subprojects was previously collect and presented in the previous safeguards monitoring reports. No baseline data collection for 2 subprojects namely: Mongchao-Komaen and Komaen-Phongsak subprojects. There are 8 parameters for water quality monitoring as proposed in the EMP.

As indentified already in the previous monitoring reports that no any parameters of the baseline data are exceeded the national standard of Lao PDR. Similarly, water quality monitoring results of parameters in each mission show no significant variance between the samples at upstream and downstream. Each mission, samples were collected both upstream and downstream of subprojects. The coordinate points of each sampling site are indicated in the Table 4-1

As usual, during the first safeguards monitoring of 2015, the samples were collected for basic parameters previously analysed and some parameters were tested on site ( photos of water sampling are shown in Figure 4-1).

The methods and process used for the sampling and analysis is the same approach to the previous missions. The parameters for monitoring are: BOD, COD, TSS, PH, temperature, TDS, DO and Faecal Coliform, which were proposed in the IEE report. The analysis of water samples for parameters was conducted in the Lab. The results of water quality are shown in the Annex 1.

These results of the samples collected for the Subprojects of year 1 will be compared to the baseline data and national standard.

		
Water sampling and testing at upstream of Nam Ou subproject; dated 26 May 2015	Water sampling and testing at downstream of the Nam Thae subproject; dated 27 May 2015	Water sampling and testing at downstream of Nam Ngang subproject; dated 30 May 2015
		
Water sampling and testing at upstream of Nam Haad subproject; dated 5 June 2015	Water sampling and testing at downstream of Houay Sat subproject; dated 4 June 2015	Water sampling and testing at downstream of the Nam Gna 6 and Houay Luang subproject; dated 31 May 2015

Figure 4-1 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 (Na 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-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	HK1 (Hong Kong)-up	746494	2321167	WGS 84; Zone 47 N
16	HK2 (Hong Kong)-down	749830	2317655	WGS 84; Zone 47 N
17	NY1 (Nam Gngang)-up	747341	2320662	WGS 84; Zone 47 N
18	NY2 (Nam Gngang)-down	749630	2317655	WGS 84; Zone 47 N
19	NGH1(Nam Gna6-HouayLuang)-up	724834	2348503	WGS 84; Zone 47 N
20	Nam Gna6 (up)	723763	2348075	WGS 84; Zone 47 N

21	NGH2(Nam Gna6-HouayLuang)-down	723512	2349421	WGS 84; Zone 47 N
22	NB1 (Nam Bak)-up	707441	2326753	WGS 84; Zone 47 N
23	NB2 (Nam Bak)-down	705100	2327200	WGS 84; Zone 47 N
24	NS1 (Houay Sat )-up	670332	2199399	WGS 84; Zone 47 N
25	NS2(Houay Sat )-down	667766	2199456	WGS 84; Zone 47 N
26	NP1 (Nam Pouk)-up	664805	2236348	WGS 84; Zone 47 N
27	NP2(Nam Pouk)-down	662300	2235289	WGS 84; Zone 47 N
28	NGN1 (Nam Ngaene)-up	811908	2363616	WGS 84; Zone 47 N
29	NGN2 (Nam Ngaene)-down	808447	2368019	WGS 84; Zone 47 N
30	NTH1 (Nam Thae)-up	795432	2467742	WGS 84; Zone 47 N
31	NTH2 (Nam Thae)-down	789426	2466442	WGS 84; Zone 47 N

This water quality report is built up from the water testing of 16 rivers. Each of which, two water sampling stations are allocated (the two stations are called up and down stations). In fact, the absolute number of water sampling stations is supposed to be 32 stations in total but in this report there are only 31 water sampling stations are taken because of that two rivers are eventually converged and become one so the downstream station for both is only one. The rivers are named as Nam Haad, Nam Ma Oune, Nam Dai, Nam Ou, Nam Lan, Nam Tin, Houay Xo, Nam Hong Kong, Nam Gngang, Nam Houay Louang, Nam Gna6, Nam Bak, Houay Sat, Nam Pouk, Nam Ngaene, Nam Thae.

The central aim of this water testing is to identify whether or not the activities along downstream areas could actually change water status of the rivers and to claim whether or not the testing results are over the standard limits. There are 8 fundamental parameters, temperature, pH, DO, TDS, TSS, COD, BOD and total-Coliform group are analyzed.

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 explanation of detail are described in the table4-2.

**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 COD at downstream show 0.5 mg/L higher than the standard limit. The flow of the water on that day was so slow even more the water was very shallow (15 cm depth) which almost impossible to collect the sample. This could be one of the reasons why COD is higher than the upstream value. 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.
Nam Ma Oune	For Nam Ma Oune, it was in the morning of collecting Nam Ma Oune sample and the night before it rained so there is no wonder that the river run quite fast and cool. This can be seen from high TSS value which goes over the standard limit (10.3 and 12.0 mg/L for up and downstream, respectively) while other show good results as they are still stay with the standard limit which even more the DO value seem to be so high which are 8.81 and 9.88 mg/L for up and downstream, respectively due to cool and fast running water.
Nam Dai, Houay Xo, Nam Gna 6 up stream and Nam Gngang	For Nam Dai, Houay Xo, Nam Gna 6 and Nam Gngang, when the testing results of all 8 parameters analyzed at up and downstream sampling stations of all 16 rivers are compared to the standards, it is indicated that no results go beyond the standard limits. For example, from the field observation at Nam Dai, even though the river is very shallow(10-15 cm depth), it is very clear and no algae or other life forms indicating eutrophication. Additionally,
Nam Ou	For both up and downstream of Nam OU, only TSS and COD are found to be over the standard which are 23.50 and 25.40 mg/L (up and downstream, respectively) and 10.56 and 9.37 mg/L (up and downstream, respectively), respectively. This high concentration can be from the sand extraction activity in the middle of Nam Ou river located about 50 m away up from the upstream water station.
Nam Gna 6-Houay Luag (downstream), Nam Bak, Nam Pouk, Nam Ngaene.	Like Nam Ou, only high concentration in TSS and COD could also be found in Houay Luang (at upstream station), Nam Gna6-Houay Luang (downstream station), Nam Bak( at upstream for TSS and at downstream for both TSS and COD), Nam Pouk (at both up and downstream) and Nam Ngaene (at both up and downstream). To be more precise, it is hard to claim that the human activities along the river are the major cause of such high concentration for both TSS and COD because the concentration of both TSS and COD is found to be even higher when compared to that of the downstream station such as Nam Houay Luang and Nam Ngaene. For Nam Houay, TSS is 23.50 mg/L and 15 mg/L (upstream and downstream station, respectively) and COD is 7.75 mg/L and 7.56 mg/L (upstream and downstream station, respectively). For Nam Ngaene, TSS is 12.10 mg/L and 9.20 mg/L (upstream and downstream station, respectively) and COD is 6.23 mg/L and 6.01 mg/L (upstream and downstream station, respectively). This reason is also applicable to Nam Pouk where COD level at upstream is 0.24 mg/L higher than that of downstream. Some might argue that the human activity can have an effect on the river because the TSS at upstream is found 5.4 mg/L lower than that of downstream station but this could be possible because the day collecting sample from Nam Pouk downstream station, there were about 10 children playing and swimming enthusiastically just 20 m above. For Nam Bak, it is found that both TSS and COD level of upstream station are lower than that of the downstream one. This could be explained that, based on the field observation, the area in between upstream and downstream station has been newly cultivated into agricultural areas and the top soil has been being

	ploughed readily for planting. This might be the cause of higher TSS and COD at the downstream station.
Nam Lan	The testing results of water quality of Nam Lan show acceptable results except for TDS and COD (only upstream station) which seem to be higher than the allocated standard. For upstream station it is 816 mg/L and 5.54 mg/L (TDS and COD, respectively) while for downstream station it is 759 mg/L and 4.34 mg/L, respectively. When the field area is observed, it is found that Nam Lan is located very close to agricultural areas. It is, therefore, assumed that one of the possible reasons of this high concentration can be because of human activity nearby or from the agricultural activity which uses pesticide or fertilizer (Lehigh University, 2011) and such high COD concentration can also be resulted from using fertilizer and pesticide (Namdev, Bajpai & Malik, 2011 and Raymond, Catherine, Masaharu, 2006)
Nam Tin and Hong Kong	For Nam Tin and Hong Kong, only COD (both are upstream stations) is found to be higher than the standard limit which is 6.40 and 6.30 mg/L, respectively. It is observed at the two sites that the water is very still (the flow is very slow) and, especially Nam Hong Kong, the water looks slightly milky in color and there were some ducks swimming around. This could be said that some leaves or the sediment are being decayed possibly causing high in COD level. However, if it is true, when the rain comes this problem might be washed away.
Houay Sat	For Houay Sat at both up and downstream stations, it will have to accept that BOD and COD concentration at this river show higher concentration when compared to that of the standard limits. For example: 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. However, it is not simple as it is to claim that there are human activities in between these two station cause any impacts on the water quality of this river because the concentration of the two parameters at downstream show lower value than the upstream. This can be said that the river is contaminated at somewhere even upper the upstream water sampling station.

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	30.3	7.91	232	8.14	8.96	4.87	1.54	>230	<ul style="list-style-type: none"> <li>• <b>PH:</b> 5-9. (Water Resource and Environmental Agency, 2009C)</li> <li>• <b>Temperature:</b> 13°C-34°C (US EPA, 2012)</li> <li>• <b>TDS:</b> 500 (SMCLs<sup>1</sup>) (The California Department of Public Health in Water Quality Division, 2010)</li> <li>• <b>TSS:</b> 10 (US EPA, 2003)</li> <li>• <b>DO:</b> 6 (Water Resource and Environmental Agency, 2009C)</li> <li>• <b>COD:</b> 5 (Water Resource and Environmental Agency, 2009C)</li> <li>• <b>BOD:</b> 1.5 (Water Resource and Environmental Agency, 2009C)</li> <li>• <b>Total Coliform group:</b> 5000 (Water</li> </ul>
2	NH2 Nam Haad)-Down	30	7.76	234	7.94	9.50	5.50	1.17	>230	
3	MO1 (Nam Ma Oune)-up	25.9	6.42	168	8.81	10.30	2.87	0.52	>230	
4	MO2-down	26.8	6.71	177	9.88	12.00	2.98	0.38	>230	
5	D1 (Na Dai)-up	27.2	6.8	157	5.62	1.50	2.16	1.38	>230	
6	D2-down	33.5	6.05	154	6.5	1.50	1.89	1.03	>230	
7	NO1 (Nam Ou)-up	29.4	7.12	391	7.75	23.50	10.56	4.60	>230	
8	NO2 (Nam Ou)-Down	30.9	7.62	406	7.85	25.4	9.73	4.54	>230	
9	NL1 (Nam Lan)-up	28.6	7.40	816	7.01	3.40	5.54	3.01	>230	
10	NL2 (Nam Lan)-down	2.9	7.88	759	10.02	4.50	4.34	2.82	>230	
11	NT1 (Nam Tin)-up	28.3	6.70	87	6.54	2.80	6.4	2.61	>230	
12	NT2-Down	30.3	6.35	94	6.02	6.40	3.11	3.3	>230	
13	HX1 (Houay Xo)-up	27.5	7.55	346	8.63	1.3	2.70	1.06	>230	
14	HX2 (Houay Xo)-down	27.1	6.88	338	9.84	1.50	2.08	0.11	>230	
15	HK1 (Hong Kong)-up	27.6	5.5	143	8.38	7.32	6.30	2.41	>230	
16	HK2 (Hong Kong)-down	28.4	6.01	136	7.73	6.40	5.21	1.87	>230	

<sup>1</sup> Secondary maximum contaminant levels

17	NY1 (Nam Gngang)-up	31	5.3	133	6.92	4.80	3.20	2.73	>230	Resource and Environmental Agency, 2009C)
18	NY2 (Nam Gngang)-down	32	6.4	135	6.20	4.30	2.60	2.13	>230	
19	NGH1(HouayLuang)-up	32.8	6.10	127	6.01	23.5	7.75	4.34	>230	
20	Nam Gna6 (up)	30.8	6.0	167.4	6.03	6.5	2.72	1.78	>230	
21	NGH2(Nam Gna6-HouayLuang)-down	29.6	5.82	110	5.98	15.0	7.56	2.98	>230	
22	NB1 (Nam Bak)-up	22.5	6.57	177	8.82	18.0	2.44	0.49	>230	
23	NB2 (Nam Bak)-down	24.5	6.17	172	7.88	22.0	5.15	0.96	>230	
24	NS1 (Houay Sat )-up	30.6	7.40	278	7.13	9.08	7.42	6.25	>230	
25	NS2(Houay Sat )-down	32.6	7.8	269	7.05	10.00	7.45	5.12	>230	
26	NP1 (Nam Pouk)-up	30.2	6.13	97	6.05	54.6	4.58	1.32	>230	
27	NP2(Nam Pouk)-down	30.3	6.35	94	6.02	59.5	4.34	1.26	>230	
28	NGN1 (Nam Ngaene)-up	28.5	7.85	301	8.39	12.1	6.23	2.4	>230	
29	NGN2 (Nam Ngaene)-down	28.8	7.95	293	7.40	9.2	6.01	1.80	>230	
30	NTH1 (Nam Thae)-up	32.3	7.35	546	7.4	2.5	4.60	1.07	>230	
31	NTH2 (Nam Thae)-down	35.8	7.6	543	7.5	9.5	3.25	1.82	>230	

#### 4.4.2. Agro-Chemical Parameters

As per recommended in the TOR, the missions of year 3 includes the analysis of the agro-chemical parameters for i) Nam Ma Oune Subproject in Long district, Luang namtha province, and ii) Nam Pouk subproject in Houayxai district, Bokeo province.

Concerning the agro-chemical parameters required are: i) Pesticides Organochlorine (Dieldrin, Heptachlor, Heptachlor epoxide, Lindane, Total DDT) ii) 2,4-D iii) ATRAZINE (Laddock) iv) Chlordane v) Pesticides Phosphate group vi) Pesticides Pyrethroid group vii) Pesticides Carbamate group.

The result shows detection of substance load in the samples are within the standard.. The results show no detection of substance load in the samples from both subprojects. All the parameters of 4 groups are detected zero number (standard is <0.01 ppm). It is assumed that the substance is transported by the flow. It is also considered that at the moment of sampling no use of the pesticides therefore no detection. It is confirmed that the chemicals are used time to time periodically. Details of the analysis result sheets are in Annex 1.

### 4.5 Soil Quality Assessment

#### 4.5.1. Soil Sampling and Station

The soil samples were collected in the subprojects areas of 3 subprojects; namely Nam Bak, Nam Pouk and Nam Ma Oune. One kilogram of sample per subproject was taken; for each sample. The suggestions for the sampling and handing methods were given by the staff of Central Lab in Thailand for the selection of the sampling location; based on the topographical condition and agricultural practices in the areas of subproject. The sampling locations were marked with coordinates. Details of the coordinate and sampling location are in the table 4-5.

At sites, the samples were collected in the agriculture land plots (Paddy field) which are very close to the banana plantations and assumed that the contaminant from the banana plantations can be loaded to these sampling plots.

Soil sampling and handling methods also followed the suggestion given by the lab. different methods and equipments are used to analysed groups of parameters; which detailed in the table 4-4.

**Table 4-4: Soil analysis methods for parameters**

No	Parameters for soil analysis	Analysis method standard and equipments
1	Atrazine-Soil	In-house method based on QuEChERS by GC-MS
2	Carbamate Group	In-house method based on QuEChERS by LC-MS
3	Organochlorine group	In-house method based on QuEChERS by GC- $\mu$ ECD
4	Organophosphate group	In-house method based on QuEChERS by GC-FPD
5	Pyrethroid	In-house method based on QuEChERS by GC- $\mu$ ECD

**Table 4-5: Soil sampling locations and coordinates**

No	Locations of soil sampling	Coordinate and Projection		
		Easting	Northing	Projection
1	Nam Bak	706096	2327537	WGS 84; Zone 47 N
2	Nam Ma Oune	708793	2329286	WGS 84; Zone 47 N
3	Nam Pouk	664292	2235887	WGS 84; Zone 47 N

		
Soil sampling at Nam Bak; dated 1 June 2015	Soil sampling at Nam Ma Oune; dated 1 June 2015	Soil sampling at Nam Pouk; 2 June 2015

Figure 4-2 Photos of soil samples collection at Nam Bak, Nam Ma Oune and Nam Pouk subprojects.

#### 4.5.2. Soil Analysis Result

With the analysis result, It shows no detection of all 55 parameters of 4 main groups (namely: Pyrethroid, organophosphate, carbamate groups) and Atrazine-soil. Details of the analysis report sheets are shown in the Annex 2

Expectedly, this soil analysis would be able to clearly claim that banana plantation contribute toxic chemicals to surrounding environment. However, this no detection is questionable whether the soil has not such analysed chemicals or because the following aspects. One is that allocation for soil sampling plots (stations) is not the optimal choice. This claim can be explained that in between the plantation area and the soil sampling plots there is a ditch for draining water to down under land area; buffering between banana plantation and agriculture land of local people. The leachate from the plantation area could flow into this ditch before it get cross over to the soil sampling plots.

Another reason of no detection is that during this period it is the period of low use or no use of their chemicals. In addition to that, the chemicals used in the plantation areas closed to the sampling plot are not highly intensely used or, if it is so, the concentration is so low that such concentration could not be detected and even more if it is already low or if it is high in concentration, such concentration could be diluted by wind or by supplied water as the time goes by. Finally, this plantation age is still young (maybe not more than 4-5 years of age) the concentration of the used chemicals accumulated may not so high enough to the point of detection.

#### 4.5.3. Recommendation

To the listed possible reasons of no detection of the 4 main groups used in insecticides, pesticide or fertilizer in banana plantation areas, it is recommended as the following. First, the later soil sampling plots should be just inside the banana plantation areas. Another possible suggestion is that the types of chemicals should be well understood. By this it means that the it would be benefited if the types of chemicals and their description on their bottles are well

studied before next sampling to conclude that the 4 main groups now are correctly chosen and this could link to the next possible suggestion. If the description of the chemicals used by the owners of the banana farms are studied, the types of the chemicals used will be known whether those chemicals used are for insect or pest clearance or for fertilizing the banana. When this is well understood, the time allocated for soil sampling will be correct.

#### **4.6 Complaints Concerning Environmental Issues**

In addition to the visit of construction sites of subprojects, the Consultations and discussions with the beneficiary communities in Subprojects were conducted. This is to get the feedback from communities concerning the environmental impacts from implementation of subproject activities. In general, no major environmental concerns or impacts were raised by the communities. Even though some consequences of construction activities reported and observed e.g. landslide/erosion, temporary disturbance of water flow.

#### **4.7 Environmental Enhancement Works**

The project has continuously support the capacity building to PPO and DCO as well as the PONREs and DONREs for environmental management and implementation; particularly through the engagement in the Subproject activities e.g. involvement of the PONREs and DONRES staffs in IEE process, Consultations, safeguards monitoring missions. PONRE and DONRES in some provinces and districts carry out their own environmental monitoring in subprojects as part of the projects and or for other development projects.

To enhance the capacity of the PONRE and DONRE, The executive committees at provincial and district levels are involved by representatives from the PONREs and DONREs to support the implementation of subprojects' activities. In addition, the project has also supported the involvement of PONREs and DONREs to involve in the independent environmental and social safeguards monitoring bi-quarterly basis.

## **5 Results of Social Safeguards Monitoring**

### **5.1 Land Acquisition, Resettlement and Compensation (LARC)**

#### **5.1.1 Summary of LARC for Project**

Likely, social aspect is more obvious things than environmental impact for the subprojects. Review of the relevant reports of subprojects concerning the social safeguards was made. It is found that the proper documentation and implementation processes of social safeguards were properly prepared. The EGP, EGPs, GAPs, and RAPs were studied and prepared for all 18 subproject. Only few of these have some minor impact; mainly related to land acquisition at earlier stage of the subproject implementation. However, all potential impacts were consulted and mitigated through the proper grievance process required by Lao regulation and ADB requirements.

It was already reported and confirmed in the previous safeguards monitoring reports that all the affected lands were <5% of AHs' total productive lands. The AHs were willing to donate for the Project of such land areas voluntarily.

Through the operation of the subprojects, there are 3 households affected from the operation of Mongchao-Komaen subproject; not directly occurred during the construction phase. These include 2 households at Mongchao village whose tea plantation partially affected due to land subsidence and 1 household at Komaen village whose housing land was affected by landslide.

The proper process was implemented by the PPO and DCO to mitigate of such impact based on the request of AHs. Consultations with AHs had been regularly held by PPO, DCO and local government as well as safeguards monitoring team. Later, these 3 AHs have been compensated with land by land compensation. During the first monitoring mission of 2015, the safeguards monitoring team met and interviewed the AHs. The compensation was proved by the document as evidence, including the letter of district government's agreement to give the new land plots for these 3 AHs and land use certificate (for 1 AH at Komaen village).

The summary of the land acquisition, resettlement and compensation which were studied by GIC are summarized in the Table 5-1 both for Subprojects of year 1 and 2.

The land acquisition and compensation methodologies applied are the same for all subprojects through the proper procedures and solutions in accordance with the ADB policy and relevant laws of Lao PDR on resettlement and compensation.

Table 5-1: Information on Land Acquisition, Resettlement and compensation for 18 subprojects

Types of asset	Description of loss	Rounded amounts (kip)	No. HHs	Comments	
<b>Nam Tin Irrigation Subproject</b>					<b>Year 1</b>
Loss of land	None	None	None	No land acquisition, resettlement, compensation requirement. Related planning can be regarded as completed at feasibility stage.	
Loss of crops	None	None	None		
Loss of trees	None	None	None		
Loss of common property resource	None	None	None		
Relocation of housing and resettlement	None	None	None		
Income restoration and rehabilitation	None	None	None		
<b>Houay Xo Irrigation Subproject</b>					None
Loss of land (0.32% of APs' total area cultivated)	1545 m <sup>2</sup>	40,300,000	10	No compensation was undertaken as the APs preferred to donate the small percentage of their land for subproject voluntarily.	
Loss of crops	None	7,000,000	None		
Loss of trees	4h	None	None		
Loss of common property resource	None	None	None		
Relocation of housing and resettlement	None	None	None		
Income restoration and rehabilitation	None	None	None		
<b>Nam Haad Irrigation Subproject</b>					None
Loss of land	(28614 m <sup>2</sup> )	143,514,000	58	This amount is not necessary as all APs agreed in voluntary donation of their affected land to the Subproject.	
Loss of house and structures	None	No cost	None		
Loss of crops	None	None	None	No compensation was required because the construction work started after harvesting period.	
Loss of tree	605 trees	118,990,000	30 out of 58 HHs	This amount is not necessary as all APs agreed in voluntary donation of their affected trees to	

				the Subproject.
Loss of common property resources	None	No cost	None	
Income restoration	None	None	None	
<b>Name Ma Oune Irrigation Subproject</b>				
Loss of land	None	None	None	No land acquisition, resettlement, and compensation requirement Related planning can be regarded as completed at feasibility study
Loss of houses and other infrastructures	None	None	None	
Loss of crops and trees	None	None	None	
Loss of common property resources	None	None	None	
Economic resettlement /vulnerable people	None	None	None	
Income restoration	None	None	None	
<b>Hong Kong Irrigation Subproject</b>				
Loss of land	None	None	None	No land acquisition, resettlement, and compensation requirement. Related planning can be regarded as completed at feasibility study
Loss of houses and other structures	None	None	None	
Loss of crops and trees	None	None	None	
Loss of common property resources	None	None	None	
Economic resettlement/vulnerable people	None	None	None	
<b>Nam Dai Irrigation Subproject</b>				
Loss of land ( About 1.1% of APs total of productive land) during the construction period	9192m <sup>2</sup>	131.638.000	46	This amount is not necessary as all APs agreed on voluntary donation of their affected land to the Subproject
Loss of house and structures	None	None	None	
Loss of crops	None	None	None	
Loss of tree	326 trees	87.350.000	13 out of 46 HHs	This amount is not necessary as all APs agreed on voluntary donation of their affected trees to the Subproject

Loss of common property resources	None	None			
Case of economic resettlement and vulnerable people	None	None			
<b>Nam Lan Irrigation Subproject</b>					
Loss of land	None	None	None	No land acquisition, resettlement, and compensation requirement Related planning can be regarded as completed at feasibility study	
Loss of houses and other structures	None	None	None		
Loss of crops and trees	None	None	None		
Loss of common property resources	None	None	None		
Economic resettlement/vulnerable people	None	None	None		
<b>Nam Ou Irrigation Subproject</b>					
Loss of land	None	None	None	No land acquisition, resettlement, and compensation requirement Related planning can be regarded as completed at feasibility study	
Loss of houses and other structures	None	None	None		
Loss of crops and trees	None	None	None		
Loss of common property resources	None	None	None		
Economic resettlement/vulnerable people	None	None	None		
<b>Mongchao-Koman Road Rehabilitation Subproject</b>					
Loss of land	None	None	None	No cost or compensation/ resettlement	
Loss of houses and other structures	None	None	None		
Loss of crops and trees	None	None	None		
Loss of common property resources	None	None	None		
Economic resettlement/vulnerable	None	None	None		

people					
Income restoration	None	None	None		
Special assistance	None	None	None		
Types of asset	Description of loss	Rounded amounts (kip)	No. HHs	Comments	
<b>Kormoen-Phongsak Road Subproject</b>					<b>Year 2</b>
Loss of land	None	None	None	No land acquisition, resettlement, compensation requirement. Related planning can be regarded as completed at feasibility stage.	
Loss of crops	None	None	None		
Loss of trees	None	None	None		
Loss of common property resource	None	None	None		
Relocation of housing and resettlement	None	None	None		
Income restoration and rehabilitation	None	None	None		
<b>Nam Thae Irrigation Subproject</b>					
Loss of land (1.4% of APs' total area cultivated)	913 m <sup>2</sup>	19,076,000	4	No compensation was undertaken as the APs preferred to donate the small percentage of their land for subproject voluntarily.	
Loss of crops	None	None	None	None	
Loss of trees (83trees)		Unknown	1		
Loss of common property resource	None	None	None		
Relocation of housing and resettlement	None	None	None		
Income restoration and rehabilitation	None	None	None		
<b>Nam Ngaene Irrigation Subproject</b>					
Loss of land	17798 m <sup>2</sup>	227,300,000	43	The loss of 2.0% of their total productive land This amount is not necessary as all APs agreed in voluntary donation of their affected land to the Subproject .	
Loss of house and structures	None	No cost	None		

Loss of crops			30 out of 43	This amount is not necessary as all APs agreed in voluntary donation of their affected trees to the Subproject.
Loss of tree	917 trees	Included in land loss	HHs	
Loss of common property resources	None	No cost	None	
Income restoration	None	None	None	
<b>Name Gngang Irrigation Subproject</b>				
Loss of agricultural land	2287 m <sup>2</sup>	Unknown	10	The copensation budget has been planned with a total of 47.7 millions mainly based on values of affected assets and some allowances; equivalent to average of 2.74 millions for each AH
Loss of residential land	559 m <sup>2</sup>	Unknown	6	
Loss of houses	None	None	None	
Secondary structure	3 (1 toilet, 1 pig hut and 1 well)	Unknown	2 compounds	
Loss of crops and trees	37	Unknown	7	
Loss of common property resources	None	None	None	
Economic resettlement /vulnerable people(0.5% of land their total land)	Unknown	Unknown	3	
Income restoration	None	None	None	
<b>Nam Gna6-Houay Luang Irrigation Subproject</b>				
Loss of agricultural land	5590 m <sup>2</sup>	133.2 million	13	3.2% of their total productive land
Loss of crops and trees	325		10	12.1% of their total trees
Economic resettlement/vulnerable	Minor loss		4	

people	of agriucultral land				
Loss of houses and other structures	None	None	None		
Loss of common property resources	None	None	None		
<b>Nam Bak Irrigation Subproject</b>					
Loss of land ( About 1.4% of APs total of productive land)	7894 m <sup>2</sup>	136.000.000	30	This amount is not necessary as all APs agreed on voluntary donation of their affected land to the Subproject	
Loss of residential land	215		5		
Loss of secondary structures (toilet)	1		1	Under construction	
Loss of tree	87 trees		6	This amount is not necessary as all APs agreed on voluntary donation of their affected trees to the Subproject	
Case of economic resettlement and vulnerable people	Unknown		6	Would loss their minor portion of their productive land	
Loss of house and structures	None	None	None		
Loss of crops	None	None	None		
Loss of common property resources	None	None			
<b>Nam Pouk Irrigation Subproject</b>					
Loss of land	None	None	None	No land acquisition, resettlement, and compensation requirement Related planning	
Loss of houses and other structures	None	None	None		

Loss of crops and trees	None	None	None	can be regarded as completed at feasibility study
Loss of common property resources	None	None	None	
Economic resettlement/vulnerable people	None	None	None	
<b>Nam Haad Left Bank Irrigation Subproject</b>				
Loss of agricultural land (1.4% of their total land)	208	2.3 million	2	Compensation & Entitlement Forms to voluntarily donate their affected land and/or trees as their contribution to the Subproject
Loss of houses and other structures	None	None	None	
Loss of crops and trees	None	None	None	
Loss of common property resources	None	None	None	
Economic resettlement/vulnerable people	None	None	None	
<b>Houay Sat Irrigation Subproject</b>				
Loss of agricultural land	3189	Unknown	8	3.3% of their total productive land for 7 HHs, but 13% of his total productive land for 1 HH.
Loss of trees	91		3	About 30% of their total trees
Loss of houses and other structures	None	None	None	
Loss of common property resources	None	None	None	
Economic resettlement/vulnerable people	None	None	None	
Income restoration	None	None	None	
Special assistance	None	None	None	

### **5.1.2. Progress of Implementation of Land Acquisition, Resettlement and Compensation**

Implementation of land acquisition and compensation was discussed in the previous safeguards monitoring reports. No formal resettlement or compensation was introduced during survey or study. Based on baseline survey and assessment, all affected land of communities are < 5% of their total productive land and they preferred to voluntarily donate such affected land for the project. Reportedly, the project carried out the good grievance approaches in accordance with ADB requirements; and consultations with beneficiary people; particularly with those potentially affected villagers were undertaken through participatory approach. The mitigation measures for different impacts are following:

- *Loss of land and trees:* The loss of land is minor. All the APs in the subprojects where the land acquisition and loss of trees were taken place optimistically voluntarily donate because they considered the loss of land and trees as small with about less than 5% in average of APs' productive lands. They are happy to voluntarily donate the land or trees as they need to have improved infrastructures and gaining more productions.

- *Donation:* All the APs reportedly voluntarily agreed to donate their minor part of affected lands and trees to the Subprojects and no requirements of cash compensation which was proved by the compensation and entitlement forms signed by affected household and PPO in all Subprojects of year 1 & 2. It was confirmed that they are satisfied with process and their contribution and they are happy to donate their assets voluntarily.

- *Structures:* However, it was reported in the feasibility study that there would be impact on secondary structures in Nam Bak (1 toilet). The potential impacts were mitigated through the consultation and coordinate closely with the AHs and the owner voluntarily contributed such loss.

In each safeguards monitoring, the meetings with PPOs, DCOs, village committees and interviewing some APs on this regard. Similarly, during the first mission of 2015 the meetings with stakeholders were made (registration lists, meeting notes and photos are attached in the Annex 3).

Apart from the cases previously discussed, no additional new complaints received from the communities. It was confirmed that no complaints on LARC received and all activities related to LARC were solved earlier stage of subproject implementation on sites.

Concerning 3 AHs at Mongchao and Komaen villages, the compensation has been implemented. 2 AHs at Mongchao have been compensated with land of 30\*30 m; approved by district governor (Annex 6). The given land is next to their housing land. For the AH at Komaen, the new housing land was given with land certificate.

### **5.1.3. Complaints and Grievance Redress Mechanism**

The committees at village, district and provincial levels were established. These include the grievance committees for subprojects. The complaints from the villagers will go to the committee at village level or village authorities. The complaints would be reported to the committee at district level if the complaints could not be solved at village level. In case of the issues could not be managed at district level, the complaints will be under the responsibility of PPO or provincial authority.

During the monitoring mission, discussion and consultations on complaints and grievance redress was undertaken with villagers, village authorities, DCOs and PPOs in subprojects. This is to hear the comments and feedbacks from the communities on the implementation of the subprojects associated with LARC, EGDP, GAP, water utilization and community development programs.

Apart from the cases at Mongchao and Komaen, no additional or new complaints on the project implementation directly. General comments given by the beneficiary communities is insufficient water for agriculture due to increasing water demand for banana plantations in the project area upstream of subproject areas. The progress of complaints and solution for AHs at Mongchao and Komaen villages are summarized as following:

**1). Landside to the tea plantation at Mongchao village:**

During this mission, consultation with 2 AHs was made to discuss on progress of compensation. It was confirmed by the AHs that the 30\*30 m of land was given to the 2 AHs for the compensation to the affected tea plantation. The certificate for compensated land plot has not yet available, but the official land document of ownership for the new land is certified by the district government that the AHs can claim of their ownership.

Despite a small plot of land compensated, it will be useful for AHs because the given land plot is next to their housing land. On the other hand, the AHs can continue to collect the tea in the affected plantation as long as the area is stable or no more landslide. AHs also added that they are happy with the compensation and they will not request additional compensation from authorities. The meeting note was made (see annex 6).

**2). Landslide to the housing land at Komaen (Loungjing/Komaen village):**

The discussion of the complaint and compensation for the affected housing land was taken during the second mission of 2014. The AH was previously proposed and given the new resettlement area within the residential area. The team consulted with the AH with the participation of PPO and DCO representatives during last mission and it was confirmed that he was given the plot of land for housing, but the land certificate was not available.

During the first mission of 2015, It was reported and confirmed that the AH received the land certificate issued by DONRE of Phongsaly district. the AH that he is satisfied and happy with the remedial measures and solution undertaken by the project. The land certificate is in annex 7.



Figure 5-1 Photos of consultation with AHs at Mongchao village



Figure 5-2 Photos of consultation with AHs at Komaen village

## 5.2 Ethnic Group Development Plan (EGDPs) and Gender Action Plans (GAPs)

### 5.2.1. EGDPS

#### A. Overview of Subproject's EGDPS

The communities in the subproject areas compose of different groups of minority people (proportion/percentages and number of households) as summarized in the Table 5-2. It was proposed in the FS reports about issues on impact of Subprojects' activities on indigenous people and development plan for them. It is also aim of the project to support the improvement of livelihood of minority people.

Social impact assessment (SIA) report for the Ethnic group also mentioned that the ethnic groups in the subprojects have been strongly encouraged to involve in the process of the assessment and implementation. Minority people have been supported and participated in the process of the consultations; including group discussions and project implementation activities e.g. community development programs and membership of WUGs.

Table 5-2 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	The 338 HHs in Xay Chalern are all of the Hmong-lu Mien Ethno-Linguistic Group, while the 413 HHs in Nam Pouk are all of the Lao-Tai Ethno-Linguistic Group
3		Paktha	Houay Xo Irrigation	100% of Lao-Tai( Pangsa and Dong villages) and Mixed with Mong-Lu Mien (Xo village)
4			Houay Sat Irrigation	152 HHs in Ban Hat Don Keo are all of the Lao-Tai Ethno-Linguistic Group
5		Pha Oudom	Nam Haad Right Bank Irrigation	63% Mon-Khmer ( 31% are poor), Others are Lao-Tai
6			Nam Haad Left Bank Irrigation	Lao- Tai (46%), Mone-Khmer (43%) and Hmong-lu Mien (11%)
7	Luang Namtha	Long	Nam Ma Oun Irrigation	Only two HHs of minority groups, 1- Mon-Khmer and 1- Chino-Tibet; these 2 HHs middle income with sufficient rice, Others are Lao-Tai
8			Nam Bak Irrigation	dominant Lao-Tai Ethno-Linguistic Group

				53%, Mone-Khmer 25% and Tibeto-Chinese 22%.
9		Namtha	Hong Kong Irrigation	Hmong-lu mien- 4% and Mon-Khmer-2%, others are Lao-Tai
10			Nam Gngang Irrigation	86% of the dominant Lao-Tai Ethno-Linguistic Group. The other 14% are Mone-Khmer (8%), Hmong-lu Mien (4%), and 1% Tibeto-Chinese
11		Sing	Nam Dai (V) and (VI) Irrigation	No ethnic minority in 3 villages (No EGDP required)
12			Nam Gna6-Houay Luang	52% Lao-Tai; 11% Mone-Khmer; 36% Tibeto-Chinese; and less than 1% of the Hmong-lu Mien Group in Xieng-Yeun
13	Phong-Saly	Boun Tai	Nam Lan Irrigation	Only one Mon-Khmer household and being a member of WUG, others are Lao-Tai
14				Nam Ngaene Irrigation
15		Nhot Ou	Nam Ou Irrigation	4 HHs (Mon-Khmer) and 215 (Chino-Tibet others are Lao-Tai
16				Nam Thae
17			Phongsaly	Ban Mong Chao – Kormoen Road
18		Kormoen-Phongsak Road		100% of the Phounoi Ethnicity classified as Tibeto-Chinese Ethno-Linguistic Group

## B. Progress of the EGDP Implementation of Subprojects:

The Project maintains good practice on EGDP implementation and being progressively continued in all subprojects even though some activities in the Subprojects of year 1 have been finished. The results of the checklists during the site visit show that the ethnic people in each subproject responded to the questions is similar to the answers received previously.

The ethnic people have been progressively supported to engage in the Subproject process; particularly active engagement in consultations at different stage of Subproject activities. This includes agricultural promotion activities, membership to the WUGs and trainings. This is to improve the livelihood of ethnic group of people through the project implementation.

Demonstration: the project's beneficiaries (priority for ethnic group representatives and gender balance) have been demonstrated by the DCOs and PPOs through the pilot rice cultivation with "System of Rice Intensification (SRI)", crops cultivation during dry season and poultry raising. In this mission, it was reported that 5 Laentaen minority households involved the pilot peanut cultivation during the dry season in Houay Luang-Nam Gna 6 subproject. In some subprojects, it is challenge to get the minority people in the project activities voluntarily due to factors e.g. their culture, traditional way of living and availability of better way of household income earning.

## 5.2.2 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 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 targeting of poor FHHs women in the hiring of labor as well as in the delivery of associated initiatives and livelihood programs for the subproject is recommended in the GAP.

The aims of the project include following aspects:

- Women are not proportionally represented in the leadership of the village authority 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 5-3) and they are poor and need more supports on GAP and community development plan

Table 5-3 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 Irrigation	5% of 1558 HHs	41% of FHHs are poor
2			Nam Pouk Irrigation	42 FHHs in 2 villages	about 38% of FHHs or 16 HHs are poor
3		Paktha	Houay Xo Irrigation	3% of 258 HHs	2 FHHs are poor
4			Houay Sat Irrigation	15 FHHs	1 poor FHH
5		Pha Oudom	Nam Haad Right Bank Irrigation	8% of 618 HHs	62% of FHHs are poor
6			Nam Haad Left Bank Irrigation	100 FHHs or 7% HHs	53% HHs are poor
7	Luang Namtha	Long	Nam Ma Ounel Irrigation	2.6% of 67 HHs	1 FHHs is poor
8			Nam Bak Irrigation	9 FHH	5 poor FHHs
9		Namtha	Hong Kong Irrigation	27% of 488 HHs	27% of FHHs are poor
10			Nam Gnang Irrigation	169. Of the total FHHs,	No poor FHH
11		Sing	Nam Dai (V) and (VI)	7.1% of 311 HHs	32% of FHHs are

			Irrigation		poor
12			Nam Gna-Houay Luang Irrigation	6% of the total HHs in the area	33% are classified as poor
13	Phong- Saly	Boun Tai	Nam Lan Irrigation	3.3% of 165 HHs	100% Rice sufficient
14			Nam Ngaene Irrigation	38 FHHs	7 are very poor
15		Nhot Ou	Nam Ou Irrigation	2% of 844 HHs	15% of FHHs are poor
16			Nam Thae Irrigation	8 FHHs	No poor FHH
17		Phongsaly	Mong Chao – Koman Road	26% of 488 HHss	44% of FHHs are poor
18			Kormaen-Phongsaek Road	12 FHHs	two FHHs are classified as poor

## B. Progress of the GAPs:

To achieve the target of the project for the gender action plan, the implementation of the project activities has considered the gender issues. The women are prioritized and promoted to involve in all process of the implementation e.g. consultations, membership to committees, study tour, demonstrations and training. Key findings for GAPs from the first safeguards monitoring of 2015 are:

- Proportion of women appointed as a member of the WUG committees in all subprojects have reached more than 30% both subproject of year 1 and 2. Detail of the female members in the WUGs is shown in the table 5-4.

Table 5-4 Information of female members in the WUG committees in subprojects

No.	Province	District	Subproject Name	Total WUG committee	% of women in WUG
1	Bokeo	Houayxai	Nam Tin Irrigation	44	41%
2			Nam Pouk Irrigation	9	33%
3		Paktha	Houay Xo Irrigation	20	40%
4			Houay Sat Irrigation	7	43%
5		Pha Oudom	Nam Haad Right Bank Irrigation	9	44%
6			Nam Haad Left Bank Irrigation	13	31%
7	Luang Namtha	Long	Nam Ma Ounel Irrigation	7	43%
8			Nam Bak Irrigation	7	43%
9		Namtha	Hong Kong Irrigation	28	43%
10			Nam Gnang Irrigation	7	43%
11		Sing	Nam Dai (V) and (VI) Irrigation	14	57%
12			Nam Gna-Houay Luang Irrigation	14	43%
13	Phong- Saly	Boun Tai	Nam Lan Irrigation	8	37%
14			Nam Ngaene Irrigation	8	37%
15		Nhot Ou	Nam Ou Irrigation	24	37%
16			Nam Thae Irrigation	8	37%
17		Phongsaly	Mong Chao – Koman Road	31	32%
18			Kormaen-Phongsaek Road	16	37%

It is seen that all subprojects achieved the target >30% of the WUG members shall be female.

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

- 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, approximately 30% in Luang Namtha and 28% for Phongsaly.

The consequence of the trainings and awareness 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). However, based on the discussion with the village authorities, PPOs, DCOs and engineers of the Contractors it is said that the ratio of the female employment to the project activities remains low. Most of the available jobs are practicable position for women. Besides, Women prefer agriculture work as their experience and earning more money from their own agriculture production than working for the construction works of subprojects.

- The action plans on gender, and community development plans have been increased through pilot programs of the project e.g. chicken raising, demonstration of SRI cultivation trial and other crops, but there are some difficulties due to labour availability, lack of equipments, no land plot and the technique need; leading to less involvement of female groups; particularly FHHs.

### 5.3 Community Development

Discussions on community development activities were carried out. It was reported that community development activities are continuously supported by the project. The involvement of the people to the support programs are varied in subprojects.

During the first safeguards of 2015, it was confirmed that 7 households in Houay Luang-Nam Gna 6 subproject were selected for peanut cultivation. They confirmed that production is good and these households and others intend to cultivate again next dry season. Similar support was implemented in Nam Pouk subproject; where 32 HHs involved in the pilot soybean cultivation in Ban Nam Pouk with the yield of 3.21T/ha.



Meeting with the household involved the pilot peanut cultivation at B. Houay Luang; 31 May 2015

Figure 5-3 Photos of consultation with people involved the pilot peanut cultivation.

Additionally, as mentioned in the previous monitoring report concerning the contract farming. The project has supported the beneficiary communities to initiate pilot trial of proper contract farming system. All contract agreements were signed by 6 parties e.g. the village authority,

WUG, agricultural production group, Agriculture and Forestry office and Industry and Commerce office of district and investor. This is to ensure that the proper contract agreement for contract farming is well implemented. The pilot trials have been implemented in 3 subprojects of 3 provinces; where the potential contract farming are possible:

- **Nam Bak subproject:** The contract farming was made between 78 HHs in B. Phokham and B. Nam Bak of Long district with 4 investors. The pumpkin is the crop for the contract. The main aim of Project to support the contract farming is to ensure the proper documentation and securing their crop price for the farmers involved in this contract. It was confirmed farmers that they are satisfied and more secured than traditional contract farming practiced previously by farmers and investors. In the past, the price of the crops was not stable and secured; the farmers lost benefits.
- **Nam Larn subproject:** The Project supported the contract farming system for 75 HHs in B. Nawai; Bountai district with 4 investors. The contract agreement is aimed to support the farmers to grow the bean and water melon for investors with the fixed and secured price for crops. It was reported by the farmers that this supported contracts are interesting and less concerned of crop price.
- **Nam Haad right and left bank subprojects:** With the lesson learnt in the past, farmers were usually taken advantage by the business persons; minimizing the crop price. The Project supported the contract agreement of 25 HHs with the local business men. The contract aimed to facilitate the selling of rice seed to secure the price of rice seed for farmers based on the agreed price. The

Apart from the demonstration through agriculture practices, several trainings related to communities development activities have been continuously conducted by the PPO and DCO for the local villagers on the technical knowledge and skills. these include:

- The training on marketing and financial management conducted by PPOs and DCOs;
- Poultry raising (chicken): training for the new members who will join the chicken raising will be trained and the new batch of chicken will be provided to the pilot households; and
- Water user groups in subprojects of year 1 and 2 have been trained on water utilities; operation, water fee collection and maintenance were conducted by the project to build the capacity within their communities for sustainable use of their schemes.

## 5.4 Employment

Out of 18 subprojects, there are 14 subprojects are on operation and construction of other 4 subprojects are almost completed. Direct employment for the construction activities are less even though fewer workers are still engaged for the construction activities of Houay Sat subproject.

As mentioned in the previous reports that not many people in the beneficiary communities were employed. the facts are that: a). villagers are not willing to be workers for the construction activities of subprojects, b). limited requirement of workforce for construction works (e.g. road rehabilitation which required more machines than human working); b). the low wage comparing to their daily agriculture/crop production (tea collecting and selling or growing rice or other crops can provide more money than labouring) and the period of employment is permanent; c). People think that the construction work must be hard for them and need some skills; comparing to their daily agricultural practice or working for banana or rubber plantation.

## 5.5 Public Consultation and Information Disclosure

With the review of project documents, public consultations for different activities of subprojects have been conducted at stages of the project implementations. All relevant document and information have been disseminated. This is to make sure that people in the beneficiary communities are informed and understanding of the project implementation plans.

The consultations have been aware of the participation of women, minority ethnic groups and vulnerable people in the subproject areas. All consultations, affected households/people are invited and prioritized.

Also part of the monitoring mission, the public consultations with the AHs/APs, village authorities, PPOs, DCOs, WUGs and villagers are regularly undertaken in Subprojects. The main idea of the meetings is to get the feedbacks from the communities regarding the environmental and social issues. Key issues discussed during the meetings are:

- 1). *Subprojects being operated*: operation of the improved structures, water use management and maintenance and water fee collection and other potential impact; which are consequences of subprojects implementation.
- 2). *Subproject under construction*: general environmental and social issues caused by the construction activities and possible mitigation measures.

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

Capacity building is also 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 improved their daily living condition in the future.

With the requirements of Lao regulations and ADB policy, environmental and social safeguards is applied for the Project activities. Through the implementation of the safeguards, relevant documents/reports have been developed e.g. IEEs, EMPs, EGDPs, GAPS, RPs. Besides these documents, environmental and social impact assessment and consultations were undertaken and these activities were engaged by representatives from DONRE, PONREs, PPO and DCO.

In addition, the PPOs, DCOs, DCOs, PONREs and DONREs have 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.

Additionally, during mid May 2015 the socio-economic evaluation trainings were piloted in 3 subprojects in 3 provinces; namely: subprojects of Nam Haad, Nam Lan and Nam Dai 5-6. There 307 people (105 women) were trained (based on given registration lists). The training covered different contexts of evaluation e.g. socio-economic development, operation and maintenance of infrastructures and environmental and social safeguards.

## 7 Conclusion, Recommendation and Follow up Actions

### 7.1 Conclusion

First safeguard monitoring mission of 2015 was undertaken between 23 May - 7 June 2015. It is noted that there are 14 subprojects have been operated and other 4 subprojects are under construction (all of them are >80% completed). The monitoring of environmental and social safeguards was carried out in all subprojects.

No any significant environmental issues were observed on sites and reported by communities. Some environmental issues were seen at worker's camp of Nam Ngaene subproject; where the poor waste (wastewater and garbage) management and housekeeping. Minor concern was observed at the construction site and worker's camp of Houay Sat subproject concerning the construction waste.

Concerning social aspect, no new issues or complaints raised by beneficiary communities in subprojects. Main issues discussed and reported are: insufficient water for irrigation due to more increasing water use for banana plantations in the project area, conversion of irrigated agricultural land into banana plantations in some subprojects and water.

For the pending issues of land use impacts at Mongchao and Komaen villages have been solved. 3 AHs are compensated with new land plots. The AHs are confirmed satisfied with the compensation.

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

#### A. Environmental Safeguards Issues:

- **Erosion and Sediment Control:** In-stream sediment transport was observed at Nam Ou subproject. The cause of the high sediment load is sourced from the crushing plant of local company and the aggregated extraction from the reservoir of Nam Ou weir. These two activities are located next to the upstream of the weir. These activities cause potential impact on water quality e.g. higher turbidity of water and potentially affect the quality of water for irrigation in the long term and people of Nhot Ou township at downstream. Similar problem was found at Nam Thae subproject; where the pumping machine was installed at upstream of weir to extract the aggregate and release turbid water to downstream.
- **Landslide:** No additional occurrence of land slide was observed during site visit at Mongchao-Komaen and Komaen-Phongsaek subprojects. Remediation and mitigation measures for the AHs have been undertaken through the compensation. No land slide was observed in other subprojects.
- **General Waste Management:** Poor waste management was only found at the construction camp of Nam Ngaene subproject in Bounthai district. Recommendation was given to the PPO, DCO, DONRE and PONRE for immediate action because the camp is located within the residential area of community. It was confirmed that the construction will be completed soon and rehabilitation will be undertaken.

- **Hazardous Materials and Waste:** Only 4 subprojects are under construction, but no concerns of chemical and hazardous material and waste spillage/leakage was observed in construction sites. All chemicals are delivered to the sites by local suppliers.
- **Wastewater Management:** Potential discharge of wastewater from the slaughterhouse to the irrigation canal of Nam Gngang subproject. The villagers concern of impact of wastewater this factory into the canal and finally into their rice paddy. The PONRE confirmed to check this with the owner and finding the solution.
- **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, but mainly influenced by other activities at upstream within the watershed/catchment.
- **Water quality for Agrochemical parameters:** The analysis of agro-chemical parameters for Nam Ma Ounewas conducted. The required parameters are: i) Pesticides Organochlorine (Dieldrin, Heptachlor, Heptachlor epoxide, Lindane, Total DDT) ii) 2,4-D iii) ATRAZINE (Laddock) iv) Chlordane v) Pesticides Phosphate group vi) Pesticides Pyrethroid group vii) Pesticides Carbamate group.

The result shows detection of substance load in the samples are within the standard. The results show no detection of substance load in the samples from both subprojects. All the parameters of 4 groups are detected zero number (standard is <0.01 ppm). It is assumed that the substance is transported by the flow. It is also considered that at the moment of sampling no use of the pesticides therefore no detection. It is confirmed that the chemicals are used time to time periodically. Details of the analysis result sheets are in Annex 1.

- **Soil Sampling and Analysis:** It shows no detection of all 55 parameters of 4 main groups (namely: Pyrethroid, organophosphate, carbamate groups) and Atrazine-soil. The soil analysis would be able to clearly claim that banana plantation contribute toxic chemicals to surrounding environment. However, this no detection is questionable whether the soil has not such analysed chemicals or because: 1) soil sampling plots (stations) is not the optimal choice, 2). during this period it is the period of low use or no use of their chemicals, 3). the chemicals used in the plantation areas closed to the sampling plot are not highly intensely and 4). this plantation age is still young (maybe not more than 4-5 years of age) the concentration of the used chemicals accumulated may not so high enough to the point of detection.
- **Terrestrial and Aquatic Resources:** There are 4 subprojects on progress of construction and they are all > 80% completed. Reportedly only minor scope of works remained for these 4 subprojects. No anticipated aquatic and terrestrial biological impacts. Current potential impacts are caused by other development project within the catchment of the subprojects e.g. banana plantations.

- **Health and Safety:** It was confirmed by the local communities that no accidents and community health impacts caused by construction activities of subprojects.
- **Agro-Chemical Use:** Reportedly chemical use in agriculture and banana plantations in the project catchment areas remains widely used. No absolute solution or mitigation reported even though the central government office revealed the concerns and issued the notification.

## B. Social Safeguards Issues:

The main issues of social aspects discussed and reported from first mission of year 2015 can be summarized as following:

The details of the social aspects can be summarized as followings:

- **Affected Households:** As mentioned in the previous reports that there were 2 AHs at Mongchao and 1 AH at Komaen village. The tea plantation and housing land of these AHs were affected by landslide caused by consequence of construction of Mongchao-Komaen subproject. These AHs have been compensated with new land with the satisfaction of AHs. The official documents for these 2 plots of land were proved and certified by the district governor of Phongsaly for the land ownership of these 3 AHs.
- **Land Use Change:** As aim of the project, it is anticipated that the beneficiary communities will get benefits from the project with improved infrastructures and more effective agriculture production would help the local communities to get better incomes and livelihood.

Most of the proposed irrigated agriculture land areas designed for Nam Ma Oune subproject has been developed for banana plantation. It was said that the land lease has been mainly carried out by individual land owner/farmers voluntarily. It is also reported that most of such land releases have no proper documentation and the price is varied among land plots in subprojects.

Similar situation or trend was found in other subproject e.g. Nam Bak, Nam Pouk and Nam Dai subproject. This will be main concerns to secure for long-term improvement of people livelihood and the traditional way of living of ethnic groups of people will be changed.

- **Water Use Concerns:** It was reported during the meeting with communities that more water use at upstream of the subprojects due to increasing banana plantation. The local communities raised concerns about this because less water available for the agriculture of local people in the irrigated areas or downstream of the subproject. It is reported that the similar situation has been widely occurred in Sing district; not only within the subprojects area of Nam Dai and Houay Luang-Nam Gna6. With this regard, the technical working group of local government has been set up to find the solution. Similar concern was raised at Nam Tin subproject.
- **Progress of EDGP Implementation:** The EDGP activities are regularly implemented as per plan. Several activities have been carried out continuously since first mission of 2013 e.g. SRI pilots, chicken raising and trainings. Additionally, it was reported that minority people involved the pilot contract farming systems, peanut and soybean cultivation

pilots. The enhancement of minority groups of people have been actively promoted to participate in different activities of project.

- **GAP Implementation:** It is found that the GAP implementation is well improved . Proportion of women appointed as a member of the WUG committees in all subprojects have reached more than 30% both subproject of year 1 and 2. Recently the training on socio-economic 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, approximately 30% in Luang Namtha and 28% for Phongsaly respectively.
- **WUG Organization and Training Need:** Discussions with WUGs in subprojects have identified that some improvements and requirements is needed. These include the further training needs for the WUG members for proper irrigation water use management, operation techniques, maintenance of the systems and water fee collection. All WUGs of subprojects should have the common understanding of management system based on the experiences got from operation last season.

## 7.2 Recommendation

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

- **Land Use change:** Hectares of agriculture land (irrigated area) of subprojects e.g. Nam Ma Oune, Nam Bak subprojects have been converted to banana plantations. Similar situation seems to be increased in other subprojects. The conversion of agriculture practice from rice paddy into banana plantation will bring the long-term change (probably negative change) to the traditional way of living of people and quality of their lives. The aim of the project is to maximize the improved structures in effective way. This is to ensure that food security of the beneficiary communities in subprojects are secured.  
Review of the land use in the subprojects is required to minimize the extension of land use change and water use conflict to be used for banana plantation and traditional cultivation of local people. The issues should be considered for the subprojects of year 3.
- **Water Use Concerns:** Concerns of insufficient water supply for irrigated areas of subprojects become more and more increased and raised by farmers in some subprojects e.g. Nam Dai 5-6, Nam Tin, Nam Bak and Houay Luang-Nam Gna 6 and and potentially for Nam Pouk. The insufficient water supply; for the agriculture land is mainly caused by diversion of water in the stream or reservoir of weirs into banana plantations. It was reported by the beneficiary people that the some conflict on water use seem to be happened between the owners of banana plantations and local people. It is recommended that the technical working groups should be set up and site investigation and survey of water use is required. The technical working groups would comprise of representatives from sectors, but not limited, e.g. DAFO, DCO, DONRE, Industry and Commerce of district and cabinet office of district. The proposed solution and mitigation measures will then reported to provincial levels for action. The issues should be considered for the subprojects of year 3.

- **General Waste Management:** Immediate action poor waste management (including wastewater) at the construction camp of Nam Ghene subproject in Bounthai district is required. This includes the site rehabilitation prior return the land area to the owners. Recommendation was given to the PPO, DCO, DONRE and PONRE for immediate action because the camp is located within the residential area of community. It was confirmed that the construction will be completed soon and rehabilitation will be undertaken.
- **WUG Organizational Structure:** The proportion of female members in the WUG committees of year 3 shall be practiced in the same way of year 1 and 2 (at least 30% of committees should be female members).

### 7.3 Follow up Actions of Monitoring Team

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

- Regular water quality monitoring of 18 subprojects of year 1 and 2; and base line data for 8 subprojects of year 3.
- The progress of mitigation measures for insufficient water supply of irrigation to be carried out by district technical working group.
- Site Reinstatement/rehabilitation of 4 subprojects; particularly Nam Ngaene and Houay Sat subprojects;
- Site visit of 26 subprojects the construction sites and camps facilities to check the further progression of the implementation of environmental management plan after instructions were given in this Mission;
- Consultation with potential AHS in subprojects, village authorities, WUGs, DCOs and PPOs.

### Annex 1 Water Quality Analysis Result

Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

Water Analysis report:



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

Sampling Place: Northern Rural Infrastructure  
Location: Northern Provinces  
Testing Date: 28/6/2015 ~ 24/7/2015

N.	Description of analysis	units	N.1	N.2	N.3	N.4	N.5	N.6	N.7	N.8	N.9	N.10	Surface Water Quality standard of WSSA
	Sampling Name		D1	D2	NH1	NH2	HX1	HX2	NT1	NT2	HS1	HS2	
1.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/l	1.38	1.03	1.54	1.17	1.06	0.11	2.61	3.30	6.52	5.12	1.5
2.	Chemical Oxygen Demand (COD <sub>Mn</sub> )	mg/l	2.16	1.89	4.87	5.50	2.70	2.08	6.40	3.11	7.42	7.45	5.0
3.	Total Suspended Solids (TSS)	mg/l	1.5	1.50	8.96	9.50	1.30	1.50	2.80	6.40	9.08	10.00	-
4.	Total Coliform group	MPN/100ml	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	<1000

Remarks: # ພຽງນ້ຳທຳມະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ທັນມີມາດຕະຖານບັງຄັບໃຊ້.

Chief Chinaimo Laboratory :

*(Signature)*  
Mrs Khonesavanh K

Chief Chinaimo WTP:

*(Signature)*  
ເຈົ້າໜ້າທີ່ ພູມສາດ

General Manager NPNI:

*(Signature)*  
ລຽນທາຍ ວິນມະສາດ

Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

Water Analysis report:



Vientiane Capital City  
Nam PaPa Nakhonluang  
Chinaimo Water Treatment Plant Laboratory  
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Sampling Place: Northern Rural Infrastructure  
Location: Northern Provinces  
Testing Date: 28/6/2015 ~ 24/7/2015

N.	Description of analysis	units	N.11	N.12	N.13	N.14	N.15	N.16	N.17	N.18	N.19	N.20	Surface Water Quality standard of WSSA
	Sampling Name		NB1	NB2	NGH1	N GH2	HK1	HK2	NTH1	NTH2	NGN1	NGN2	
1.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/l	0.49	0.96	4.34	2.98	2.41	1.87	1.07	1.82	2.40	1.80	1.5
2.	Chemical Oxygen Demand (COD <sub>Mn</sub> )	mg/l	2.44	5.15	7.75	7.56	6.30	5.21	4.60	3.25	6.23	6.01	5.0
3.	Total Suspended Solids (TSS)	mg/l	18.00	22.00	23.50	15.00	7.32	6.40	2.50	9.50	6.01	9.20	-
4.	Total Coliform group	MPN/100ml	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	<1000

Remarks: # ພຽງນ້ຳທຳມະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ທັນມີມາດຕະຖານບັງຄັບໃຊ້.

Chief Chinaimo Laboratory :

*(Signature)*  
Mrs Khonesavanh K

Chief Chinaimo WTP:

*(Signature)*  
ເຈົ້າໜ້າທີ່ ພູມສາດ

General Manager NPNI:

*(Signature)*  
ລຽນທາຍ ວິນມະສາດ

Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

-----+++-----  
Water Analysis report:



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

Sampling Place: Northern Rural Infrastructure

Location: Northern Province

Testing Date: 28/6/2015 ~ 24/7/2015

N.	Description of analysis	units	N.21	N.22	N.23	N.24	N.25	N.26	N.27	N.28	N.29	N.30	N.31	Surface Water Quality standard of WSPA
	Sampling Name		NY1	NY2	NO1	NO2	NL1	NL2	NP1	NP2	MO1	MO2	NGna6_up	
1.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/l	2.73	2.13	4.60	4.54	3.01	2.82	1.32	1.26	0.52	0.38	1.78	1.5
2.	Chemical Oxygen Demand (COD <sub>Mn</sub> )	mg/l	3.20	2.60	10.56	9.73	5.54	4.34	4.58	4.34	2.87	2.98	2.72	5.0
3.	Total Suspended Solids (TSS)	mg/l	4.80	4.30	23.50	25.40	3.40	4.50	54.60	59.50	10.30	12.00	6.50	-
4.	Total Coliform group	MPN/100ml	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	<1000

Remarks: # ແຫຼ່ງນ້ຳທຳມະຊາດ ທາງລັດວິສະຫະກິດຍັງບໍ່ໄດ້ມີມາດຕະຖານບັງຄັບໃຊ້.

Chief Chinaimo Laboratory :

Mrs Khongsavanh K.

Chief Chinaimo WTP:

ເລີນ ແສງຕາລາ

General Manager NPNLI:

ດຽງທວາຍ ສິນນະລາດ



ຕົ້ນສະບັບ

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

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ກະຊວງສາທາລະນະສຸກ  
ສູນວິໄຈອາຫານ ແລະ ຢາ



0990-15  
ເລກທີ: ..... ສອຍ  
ນະຄອນຫຼວງວຽງຈັນ, ວັນທີ: 27 JAN 2015

ໃບຢັ້ງຢືນຜົນການວິໄຈ

(ໃບຢັ້ງຢືນນີ້ຮັບຮອງຜົນສະເພາະແຕ່ຕົວຢ່າງທີ່ໄດ້ວິໄຈເທົ່ານັ້ນ)

1. ຊື່ຕົວຢ່າງວິໄຈ: ..... ນ້ຳມະອຸ່ນ ( Nam Ma-Oune )
2. ຂະໜາດບັນຈຸ: ..... 1500 ml ..... ຈຳນວນຕົວຢ່າງ: 03
3. ເຈົ້າຂອງຕົວຢ່າງ/ຜູ້ຜະລິດ: ..... ທ່ານ ກັນຍາ ສຸກສະກຸນ ( NRI Project )
4. ທີ່ຢູ່ປັດຈຸບັນ, ບ້ານ: ..... ໜອງວຽງຄຳ ..... ເມືອງ: ໄຊທານີ ..... ແຂວງ: ..... ນະຄອນຫຼວງວຽງຈັນ
5. ໜ່ວຍງານ/ຜູ້ສົ່ງຕົວຢ່າງ: ..... ທ່ານ ກັນຍາ ສຸກສະກຸນ ( NRI Project )
6. ໃບສະເໜີ/ນຳສົ່ງເລກທີ: ..... ແບບຟອມສູນວິໄຈອາຫານແລະຢາ ..... ລົງວັນທີ: 19.12.2014
7. ຈຸດປະສົງການກວດວິໄຈ : ..... ກວດກາຄຸນນະພາບນ້ຳ
8. ເລກທີຂາເຂົ້າ: ..... 170/14 ຕຢ ສອຍ ..... ລົງວັນທີ: 19.12.2014
9. ວັນທີຮັບຕົວຢ່າງຈາກລູກຄ້າ: ..... 19.12.2014 ..... ວັນສຳເລັດການວິໄຈ: 26.01.2015
10. ເລກລະຫັດວິໄຈ: ..... GW.14.12.19.056
11. ຜົນການວິໄຈ:

ລ/ດ	ລາຍການວິໄຈ	ຜົນການວິໄຈ	ຂອບເຂດອະນຸຍາດ	ວິທີທົດສອບແລະເອກະສານອ້າງອີງ
11.1	ດ້ານກາຍຍະພາບ	ມີເມັດຂີ້ຝຸ່ນສີດຳຈົມລົງ ພື້ນຂວດ	ເປັນນ້ຳໃສດີ, ບໍ່ມີສີ, ບໍ່ມີກິ່ນ, ບັນຈຸໃສ່ຕຸກນ້ຳຫົວເສືອໃຫ້ຍ.	ຕາມເອກະສານ: AOAC International 18 <sup>th</sup> Edition 2005 method 990.06 Chapter10, P20-22 & P46-47
11.2	ດ້ານເຄມີ			
	Organo Chlorine group	ບໍ່ພົບ	<0.01ppm	
	Organo Phosphorus group	ບໍ່ພົບ	<0.01ppm	
	Synthetic Pyrethroid group	ບໍ່ພົບ	<0.01ppm	
	Carbamate group	ບໍ່ພົບ	<0.01ppm	

12. ສະຫຼຸບ:  ບັນລຸ  ບໍ່ບັນລຸ  ບໍ່ສະຫລຸບ

13. ຂໍ້ແນະນຳ: .....

ຫົວໜ້າສູນວິໄຈອາຫານ ແລະ ຢາ  
  
ດຣ.ສຸກລັດສະໝີ ວົງສັກ



ຕົ້ນສະບັບ

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

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ກະຊວງສາທາລະນະສຸກ  
ສູນວິໄຈອາຫານ ແລະ ຢາ



2208-15

ເລກທີ: ..... ສອຍ

ນະຄອນຫຼວງວຽງຈັນ, ວັນທີ: 02 JUL 2015

ໃບຢັ້ງຢືນຜົນການວິໄຈ

(ໃບຢັ້ງຢືນນີ້ຮັບຮອງຜົນສະເພາະແຕ່ຕົວຢ່າງທີ່ໄດ້ວິໄຈເທົ່ານັ້ນ)

1. ຊື່ຕົວຢ່າງວິໄຈ: ນ້ຳປຸກ
2. ຂະໜາດບັນຈຸ: 1500 ml ຈຳນວນຕົວຢ່າງ: 06
3. ເຈົ້າຂອງຕົວຢ່າງ/ຜູ້ຜະລິດ: ທ່ານ ກັນຍາ ສຸກສະກຸນ
4. ທີ່ຢູ່ປັດຈຸບັນ, ບ້ານ: ໜອງວຽງຄຳ ເມືອງ: ໄຊທານີ ແຂວງ: ນະຄອນຫຼວງວຽງຈັນ
5. ໜ່ວຍງານ/ຜູ້ສົ່ງຕົວຢ່າງ: ທ່ານ ກັນຍາ ສຸກສະກຸນ
6. ໃບສະເໜີ/ນຳສົ່ງເລກທີ: ແບບຟອມສູນວິໄຈອາຫານແລະຢາ ລົງວັນທີ: 01.06.2015
7. ຈຸດປະສົງການກວດວິໄຈ: ກວດກາຄຸນນະພາບນ້ຳ
8. ເລກທີຂາເຂົ້າ: 533/15 ຕຢ ສອຍ ລົງວັນທີ: 02.06.2015
9. ວັນທີຮັບຕົວຢ່າງຈາກລູກຄ້າ: 02.06.2015 ວັນສຳເລັດການວິໄຈ: 02.07.2015
10. ເລກລະຫັດວິໄຈ: GW.15.06.02.137
11. ຜົນການວິໄຈ:

ລ/ດ	ລາຍການວິໄຈ	ຜົນການວິໄຈ	ຂອບເຂດອະນຸຍາດ	ວິທີທົດສອບແລະເອກະສານອ້າງອີງ
11.1	ດ້ານກາຍະພາບ	ມີຂີ້ຝຸ່ນແລະມີຕະກອນດິນ	ເປັນນ້ຳໃສ,ບັນຈຸໃສ່ຕຸກຢາງໃສທີ່ມີຝາອັດແຈບດີ.	
11.2	ດ້ານເຄມີ			AOAC 18 <sup>th</sup> Edition 2005.Method 990.06 Chapter10, P20-22  AOAC 18 <sup>th</sup> Edition 2005.Method 990.06 Chapter10, P46-47
	Organo Chloride	ບໍ່ພົບ	0.01ppm	
	Organo Phosphorous	ບໍ່ພົບ	0.01ppm	
	Sythetic Pyrethroid	ບໍ່ພົບ	0.01ppm	
	Carbamate	ບໍ່ພົບ	0.01ppm	

12. ສະຫຼຸບ:  ບັນລຸ  ບໍ່ບັນລຸ  ບໍ່ສະຫລຸບ

13. ຂໍ້ແນະນຳ: .....

ຫົວໜ້າສູນວິໄຈອາຫານ ແລະ ຢາ  
  
ຫອງຫວ່າງ ລາດຊະວີ

ຖ. ຄວງ, ບ. ເກ້ຍອດ, ມ. ສີສັດຕະນາກ, ນະຄອນຫຼວງວຽງຈັນ  
ຕີ່ ປນ: 5966, ໂທ: (856) 21 217284, ແຟັກ: (856) 21 217503, E-mail: fdqoclaos@gmail.com

## Annex 2 Soil Analysis Report Sheet



บริษัท ห้องปฏิบัติการกลาง (ประเทศไทย) จำกัด

Central Laboratory (Thailand) Co.,Ltd.

สาขาขอนแก่น : 117/4 หมู่ 14 ถนนมิตรภาพ ตำบลในเมือง อำเภอเมือง จังหวัดขอนแก่น 40000 ประเทศไทย  
 Khon Kaen Branch : 117/4 Moo 14 Mitrapab Road, Nai Muang, Muang, Khon Kaen 40000 Thailand  
 Tel : (66) 0 4324 7704-7 Fax : (66) 0 4324 7703  
 http://www.centralabthai.com

Central Lab  
One-Stop-Full-Service

Issue Date : June 18, 2015

Report No : TR (KK) 58/06865

Page : 1 of 3

## TEST REPORT

Customer Name and Address	Mr.KANYA SOUKAKOUN NONGVIENKHAM; XAYTHANI.VIENTIANE LAO. PDR
Sample Description	Nam Bak Subproject
Sample Code	KK58/01930-001
Sample Characteristic and Condition	Sample Type: Soil Packaging : plastic bag Quantity : 1 bag, Weight/Volume : 1 kg. Temperature : chilled, normal condition.
Received Date	June 02, 2015
Test Date	June 08, 2015 - June 17, 2015

## Analysis Results

Test items	Test Results	Units	LOD	Reference Methods
Atrazine				
Atrazine - Soil	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC-MS
Carbamate group				
Aldicarb Sulfoxide	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by LC-MS
Aldicarb Sulfone	Not Detected	mg/kg	0.01	
Oxamyl	Not Detected	mg/kg	0.01	
Methomyl	Not Detected	mg/kg	0.01	
Carbofuran-3-OH	Not Detected	mg/kg	0.01	
Methiocarb sulfoxide	Not Detected	mg/kg	0.01	
Methlocab sulfone	Not Detected	mg/kg	0.01	
Carbofuran-3-keto	Not Detected	mg/kg	0.01	
Aldicarb	Not Detected	mg/kg	0.01	
Carbofuran	Not Detected	mg/kg	0.01	
Carbaryl	Not Detected	mg/kg	0.01	
Thiodicarb	Not Detected	mg/kg	0.01	
Isoprocab	Not Detected	mg/kg	0.01	
Fenobucarb	Not Detected	mg/kg	0.01	
Methlocarb	Not Detected	mg/kg	0.01	

This report is certified only on the sample tested.

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บริษัท ห้องปฏิบัติการกลาง (ประเทศไทย) จำกัด

Central Laboratory (Thailand) Co., Ltd.

สาขาขอนแก่น : 117/4 หมู่ 14 ถนนมิตรภาพ ตำบลในเมือง อำเภอเมือง จังหวัดขอนแก่น 40000 ประเทศไทย  
 Khon Kaen Branch : 117/4 Moo 14 Mitraparb Road, Nai Muang, Muang, Khon Kaen 40000 Thailand  
 Tel : (66) 0 4324 7704-7 Fax : (66) 0 4324 7703  
 http://www.centrallabthai.com

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One Stop & Total Services

Issue Date : June 18, 2015

Report No : TR (KK) 58/06865

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## Analysis Results

Test items	Test Results	Units	LOD	Reference Methods
Promecarb	Not Detected	mg/kg	0.01	
Organochlorine group				
BHC	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC- $\mu$ ECD
Heptachlor & Epoxide Heptachlor	Not Detected	mg/kg	0.01	
Aldrin & Dieldrin	Not Detected	mg/kg	0.01	
Endosulfan	Not Detected	mg/kg	0.01	
DDT	Not Detected	mg/kg	0.01	
Chlordane	Not Detected	mg/kg	0.01	
Endrin	Not Detected	mg/kg	0.01	
Dicofol	Not Detected	mg/kg	0.01	
Organophosphate group				
Dichlorvos (DDVP)	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC-FPD
Melthamidophos	Not Detected	mg/kg	0.01	
Mevinphos	Not Detected	mg/kg	0.01	
Omethoate	Not Detected	mg/kg	0.01	
Diazinon	Not Detected	mg/kg	0.01	
Dicrotophos	Not Detected	mg/kg	0.01	
Monocrotophos	Not Detected	mg/kg	0.01	
Dimethoate	Not Detected	mg/kg	0.01	
Pirimiphos-methyl	Not Detected	mg/kg	0.01	
Chlorpyrifos	Not Detected	mg/kg	0.01	
Parathion-methyl	Not Detected	mg/kg	0.01	
Pirimiphos-ethyl	Not Detected	mg/kg	0.01	
Malathion	Not Detected	mg/kg	0.01	
Fenitrothion	Not Detected	mg/kg	0.01	
Parathion-ethyl	Not Detected	mg/kg	0.01	
Prothiophos	Not Detected	mg/kg	0.01	

This report is certified only on the sample tested.

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FM-QP-24-01-002-R01(01/12/51)P2/3-KK



บริษัท ห้องปฏิบัติการกลาง (ประเทศไทย) จำกัด

Central Laboratory (Thailand) Co.,Ltd.

สาขาขอนแก่น : 117/4 หมู่ 14 ถนนมิตรภาพ ตำบลในเมือง อำเภอเมือง จังหวัดขอนแก่น 40000 ประเทศไทย  
 Khon Kaen Branch : 117/4 Moo 14 Mitraparb Road, Nai Muang, Muang, Khon Kaen 40000 Thailand  
 Tel : (66) 0 4324 7704-7 Fax : (66) 0 4324 7703  
 http://www.centralabthai.com

Central Lab  
 One-Stop & Fair Services

Issue Date : June 18, 2015

Report No : TR (KK) 58/06865

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### Analysis Results

Test items	Test Results	Units	LOD	Reference Methods
Methidathion	Not Detected	mg/kg	0.01	
Profenofos	Not Detected	mg/kg	0.01	
Ethion	Not Detected	mg/kg	0.01	
Triazophos	Not Detected	mg/kg	0.01	
EPN	Not Detected	mg/kg	0.01	
Phosalone	Not Detected	mg/kg	0.01	
Azinphos-ethyl	Not Detected	mg/kg	0.01	
Pyrethroid group				
Bifenthrin	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC- $\mu$ ECD
Lambda-Cyhalothrin	Not Detected	mg/kg	0.01	
Permethrin	Not Detected	mg/kg	0.01	
Cyfluthrin	Not Detected	mg/kg	0.01	
Cypermethrin	Not Detected	mg/kg	0.01	
Fenvalerate	Not Detected	mg/kg	0.01	
Deltamethrin	Not Detected	mg/kg	0.01	
2,4 - D <sup>o</sup>	Not Detected	mg/kg (as dry basis)	0.01	In-house method based on Journal of Agric. Food Chem.,(2001), by LC-MS/MS

Note : <sup>o</sup> Result(s) from a subcontractor

Approved by : \_\_\_\_\_

  
 ( Ms. Sujaree Inchanate )  
 Signed for the Director,  
 Laboratory Services, Khon Kaen Office  
 CERTIFIED

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Issue Date : June 18, 2015

Report No : TR (KK) 58/06866

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**TEST REPORT**

<b>Customer Name and Address</b>	Mr.KANYA SOUKAKOUN NONGVIENGKHAM; XAYTHANI.VIENTIANE LAO. PDR
<b>Sample Description</b>	Nam Ma-oune subproject
<b>Sample Code</b>	KK58/01930-002
<b>Sample Characteristic and Condition</b>	Sample Type: Soil Packaging : plastic bag Quantity : 1 bag, Weight/Volume : 1 kg. Temperature : chilled, normal condition.
<b>Received Date</b>	June 02, 2015
<b>Test Date</b>	June 08, 2015 - June 17, 2015

**Analysis Results**

Test items	Test Results	Units	LOD	Reference Methods
Atrazine				
Atrazine - Soil	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC-MS
Carbamate group				
Aldicarb Sulfoxide	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by LC-MS
Aldicarb Sulfone	Not Detected	mg/kg	0.01	
Oxamyl	Not Detected	mg/kg	0.01	
Methomyl	Not Detected	mg/kg	0.01	
Carbofuran-3-OH	Not Detected	mg/kg	0.01	
Methiocarb sulfoxide	Not Detected	mg/kg	0.01	
Methiocarb sulfone	Not Detected	mg/kg	0.01	
Carbofuran-3-keto	Not Detected	mg/kg	0.01	
Aldicarb	Not Detected	mg/kg	0.01	
Carbofuran	Not Detected	mg/kg	0.01	
Carbaryl	Not Detected	mg/kg	0.01	
Thiodicarb	Not Detected	mg/kg	0.01	
Isoprocarb	Not Detected	mg/kg	0.01	
Fenobucarb	Not Detected	mg/kg	0.01	
Methiocarb	Not Detected	mg/kg	0.01	

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## Analysis Results

Test items	Test Results	Units	LOD	Reference Methods
Promecarb	Not Detected	mg/kg	0.01	
Organochlorine group				
BHC	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC- $\mu$ ECD
Heptachlor & Epoxide Heptachlor	Not Detected	mg/kg	0.01	
Aldrin & Dieldrin	Not Detected	mg/kg	0.01	
Endosulfan	Not Detected	mg/kg	0.01	
DDT	Not Detected	mg/kg	0.01	
Chlordane	Not Detected	mg/kg	0.01	
Endrin	Not Detected	mg/kg	0.01	
Dicofol	Not Detected	mg/kg	0.01	
Organophosphate group				
Dichlorvos (DDVP)	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC-FPD
Methamidophos	Not Detected	mg/kg	0.01	
Mevinphos	Not Detected	mg/kg	0.01	
Omethoate	Not Detected	mg/kg	0.01	
Diazinon	Not Detected	mg/kg	0.01	
Dicrotophos	Not Detected	mg/kg	0.01	
Monocrotophos	Not Detected	mg/kg	0.01	
Dimethoate	Not Detected	mg/kg	0.01	
Pirimiphos-methyl	Not Detected	mg/kg	0.01	
Chlorpyrifos	Not Detected	mg/kg	0.01	
Parathion-methyl	Not Detected	mg/kg	0.01	
Pirimiphos-ethyl	Not Detected	mg/kg	0.01	
Malathion	Not Detected	mg/kg	0.01	
Fenitrothion	Not Detected	mg/kg	0.01	
Parathion-ethyl	Not Detected	mg/kg	0.01	
Prothiophos	Not Detected	mg/kg	0.01	

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### Analysis Results

Test items	Test Results	Units	LOD	Reference Methods
Methidathion	Not Detected	mg/kg	0.01	
Profenofos	Not Detected	mg/kg	0.01	
Ethion	Not Detected	mg/kg	0.01	
Triazophos	Not Detected	mg/kg	0.01	
EPN	Not Detected	mg/kg	0.01	
Phosalone	Not Detected	mg/kg	0.01	
Azinphos-ethyl	Not Detected	mg/kg	0.01	
Pyrethroid group				
Bifenthrin	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC- $\mu$ ECD
Lambda-Cyhalothrin	Not Detected	mg/kg	0.01	
Permethrin	Not Detected	mg/kg	0.01	
Cyfluthrin	Not Detected	mg/kg	0.01	
Cypermethrin	Not Detected	mg/kg	0.01	
Fenvalerate	Not Detected	mg/kg	0.01	
Deltamethrin	Not Detected	mg/kg	0.01	
2,4 - D $\odot$	Not Detected	mg/kg (as dry basis)	0.01	In-house method based on Journal of Analytica Chimica Acta 626 (2008), by LC-MS/MS

Note :  $\odot$  Result(s) from a subcontractor

Approved by :

  
 ( Ms. Sujaree Inchanate )  
 Signed for the Director,  
 Laboratory Services, Khon Kaen Office

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Report No : TR (KK) 58/06867

Page : 1 of 3

## TEST REPORT

<b>Customer Name and Address</b>	Mr.KANYA SOUKAKOUN NONGVIENGKHAM; XAYTHANI.VIENTIANE LAO. PDR
<b>Sample Description</b>	Nam pouk subproject
<b>Sample Code</b>	KK58/01930-003
<b>Sample Characteristic and Condition</b>	Sample Type: Soil Packaging : plastic bag Quantity : 1 bag, Weight/Volume : 1 kg. Temperature : chilled, normal condition.
<b>Received Date</b>	June 02, 2015
<b>Test Date</b>	June 08, 2015 - June 17, 2015

### Analysis Results

Test items	Test Results	Units	LOD	Reference Methods
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Carbamale group				
Aldicarb Sulfoxide	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by LC-MS
Aldicarb Sulfone	Not Detected	mg/kg	0.01	
Oxamyl	Not Detected	mg/kg	0.01	
Methomyl	Not Detected	mg/kg	0.01	
Carbofuran-3-OH	Not Detected	mg/kg	0.01	
Methiocarb sulfoxide	Not Detected	mg/kg	0.01	
Methiocarb sulfone	Not Detected	mg/kg	0.01	
Carbofuran-3-keto	Not Detected	mg/kg	0.01	
Aldicarb	Not Detected	mg/kg	0.01	
Carbofuran	Not Detected	mg/kg	0.01	
Carbaryl	Not Detected	mg/kg	0.01	
Thiodicarb	Not Detected	mg/kg	0.01	
Isoprocarb	Not Detected	mg/kg	0.01	
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Page : 2 of 3

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Chlordane	Not Detected	mg/kg	0.01	
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Dicofol	Not Detected	mg/kg	0.01	
<b>Organophosphate group</b>				
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Omethoate	Not Detected	mg/kg	0.01	
Diazinon	Not Detected	mg/kg	0.01	
Dicrotophos	Not Detected	mg/kg	0.01	
Monocrotophos	Not Detected	mg/kg	0.01	
Dimethoate	Not Detected	mg/kg	0.01	
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Elhion	Not Detected	mg/kg	0.01	
Triazophos	Not Detected	mg/kg	0.01	
EPN	Not Detected	mg/kg	0.01	
Phosalone	Not Detected	mg/kg	0.01	
Azinphos ethyl	Not Detected	mg/kg	0.01	
Pyrethroid group				
Bifenthrin	Not Detected	mg/kg	0.01	In-house method based on QuEChERS by GC- $\mu$ ECD
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Permethrin	Not Detected	mg/kg	0.01	
Cyfluthrin	Not Detected	mg/kg	0.01	
Cypermethrin	Not Detected	mg/kg	0.01	
Fenvalerate	Not Detected	mg/kg	0.01	
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Note :  $\odot$  Result(s) from a subcontractor

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### Annex 3 Minutes of the 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 member

- Mr. Souphab Kkouvichit 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 first safeguards monitoring of 2015 are to:

1. Visit and observe the progress of each subproject implementation for the Environment and Social aspects in accordance with ADB policy of subprojects of year 1 and 2;
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; including two samples from Nam Ma Ouneand Nam Pouk for agro-chemical parameters;
5. Soil sampling for lab analysis of agrochemical parameters.
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 second missions of 2014.

#### Methodology

- Conducting field 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 water and soil samples and transferring to Lab in Vientiane as well as field parameters testing;
- 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
- 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 PPO, DCO, DONRE and PONRE

The participants from the village's authority (including Village heads, and Lao Women's Union and water use group member) in 18 subprojects: Total participants of 313 attended during the field visit, among which approximately 101 are female participants.

Table of Participants from village level

Province	Total No. Participants	Male
Phongsaly	77	18

Luang Numtha	84	24
Bokeo	152	59
Toal	<b>313</b>	<b>101</b>

Table Participants from PCO &amp; DCO

Province	PPO	DCO	Female
Phongsaly	2	10	4
Luang Numtha	3	6	4
Bokeo	3	8	5
Toal	8	24	13

#### 4. Detailed Activities (including Venue and Participants)

##### 25 May 2015:

##### Meeting with PPO and DCO of Phongsaly

- Overview on the purpose of first safeguards monitoring mission of year 2015 and activities to be undertaken in Phongsaly;
- Discuss on the progress of the construction works of subprojects in Phongsaly province;
- The progress of EMP, GAP and EGDP implementation of second mission of 2014
- Discussion on the communities development programs in subprojects;
- Discussion on the progress of grievance and remedial measures for 3 AHs in Mongchao and Komaen villages whose land have been affected by the landslide due to improvement of Mongchao-Kormaen road;
- Water and soil quality monitoring.

##### Meeting with PPO, DCO and Village Authorities of Mongchao village

The meeting was taken place in Mongchao villages:

- Overview of the safeguards monitoring, objective and team introduction;
- Discussion on the progress of mitigation measures for 2 AHs undertaken by DCO and PPO. The meeting was involved by village authority, AH, DCO, PPO, PONRE and DONRE
- It was reported by the AHs that they were compensated for the affected tea plantation land with 30\*30 land next to their housing land and the issues was settled
- No concerns on daily transportation from their villages to others;
- No other complaints from the villagers

##### Meeting with PPO, DCO and Villages Authorities of Komaen village

The meeting was taken place in Komaen villages:

- Overview of the safeguards monitoring, objective and team introduction;
- Discussion with the village authority, AH, villagers and road maintenance committee was undertaken; with the involvement of DCO, PPO, PONRE and DONRE

- It was confirm that AH was compensated for his affected housing land with new land . The land certificate also issued.
- No concerns on daily transportation from their villages to others and no complaints received.

		
Meeting with PPO and DCO of Phongsaly province; dated 25 May 2015	Meeting with village authority at Mongchao village; dated 25 May 2015	Meeting with village authority, and villagers at Komanen village; dated 25 May 2015

### **26-27 May 2015:**

#### **Meeting with DCO of Nhot Ou District and village authorities of 6 villages of Nam Ou Subproject**

The discussion during the meeting are outlined in the followings:

- overview of the first safeguards Monitoring Mission of 2015, objective and team introduction;
- Discussion on the progress of the construction works of Nam Thae and EMP, GAP, EDGP implementation as well as the community development.
- The progress of construction of Nam thae is 92.7% completed.
- The Community development programs in villages are continued.
- No concerns/complaints raised by the villagers for both Nam Ou and Nam Thae;
- It was confirmed that involvement of the ethnic groups and women in the project activities remains active. It was mentioned that all ethnic groups are happy with the completed construction of Nam Ou irrigation system;
- WUG raised the issues on water use management and operation of the system as well as the water fee collection for Nam Ou subproject.

#### **Recommendation by Safeguards Monitoring Team at the meeting**

- It is requested the village authorities, DCO and PPO to discuss with the operator of the pumping machine of aggregate extraction at weir of Nam Thae subproject. It is recommended to remove the machine or stop of such activities as this activity will affect the water quality and water use of farmers.
- Maintaining the engagement of female participants in subproject activities;
- Additional training to the WUG regarding the operation of the system and water use management is required; particularly for Nam Ou Subproject.

#### **Meeting with 4 village authorities, WUGs, DCO and PPO for Thae subprojects**

The discussion during the meeting are outlined in the followings:

- Overview of the first safeguards monitoring of 2015, objective and team introduction;

- Discussion on the issues related the construction activities and negative and positive impacts to the villagers;
- Progress of EMP, EGDP and GAPs implementation for the subproject;
- The village chiefs of villages authorities and WUGs briefed on the subproject activities and the concerns from villagers raised;
- The village authorities raised the concerns of water culvert for irrigation canal crossing the main road. The culvert was blocked by the construction activities of the main road.
- No other concerns/complaints raised from the villagers;
- No water use conflict occurred for the subproject, but there are some areas of the commanded area designed earlier could not get sufficient water from the system;
- People in the villages are very happy with the implementation of the project and the progress of the work.



Meeting with DCO of Nhot Ou district and village heads and WUGs at DCO office; dated 27 May 2015



Meeting with village authorities and WUGS, DCO and PPO at DAFO of Nhot Ou; dated 27 May 2015

### **28 May 2015:**

#### **Meeting with DCO of Bountai District:**

The discussion during the meeting are outlined in the followings:

- overview of the first safeguards monitoring mission of 2015, objective and team introduction;
- Discussion on the progress of the construction works of Nam Ngaen; It is now 96.04% completed
- Progress of EMP, EDGP and GAP implementation.
- 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;

### Recommendation by Safeguards Monitoring Team at the meeting

- It is recommended that the DCO and DONRE shall carry out site inspection of the construction camp concerning the waste management. Also the camp should be moved out if no immediate action taken.
- The site rehabilitation of the construction camp and the removal of spoil from the paddy field of villagers is required.

### Meeting with district and village authority, WUG and villagers of Nawai :

The discussion during the meeting are outlined in the followings:

- Overview and introduction of the first safeguards monitoring of 2015;
- The monitoring team asked questions related the construction activities and environmental and social impacts from Nam Ngaen to the villagers of Nawai;
- The village chief briefed on the project activities and the concerns from villagers raised;
- Villagers has raised concern about the poor management of construction camp;
- The villagers also reported about the pilot contract farming system supported by PPO and DCO.
- No other concerns raised by villagers



Meeting with PPO and DCO in Bountai district; dated 28 May 2015



Meeting with village authority, WUG and villagers of Nawai village; dated 28 May 2015

### **29 May 2015:**

#### Meeting With PPO For Feedback

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

- Progress of the grievance and compensation for 3 AHs at Mongchao and Komaen villages. It was reported to the PPO about the results of discussion with AHs.
- The removal of pumping machine which installed next to the weir of Nam Thae subproject. otherwise, proper location of installation is required.
- The immediate action for poor waste management at the construction camp of Nam Ngen subproject is required
- Regular monitoring of the areas subject to erosion for Mongchao-Komaen and Kormaen-Phongsak road.

- Rehabilitation of the areas disturbed during the construction particularly along sides of the canals for Nam Thae and Nam Ngaene Subprojects; including the removal of spoil from paddy fields of villagers.

**30 May 2015:**

Meeting with PPO, DCO, DONRE, PONRE and village authorities at Ban Viengneua for Hongkong subproject.

The discussion during the meeting are outlined in the followings:

- Overview of the first safeguards monitoring mission, objective and team introduction;
- No any concerns on water use for Hong Kong subproject,
- It is also requested by the villagers of potential impact from the discharge of wastewater into the irrigation canals
- Discussion on the community development activities. e.g. SRI harvesting and production and chicken raising. It was confirmed that some people intend to continue the SRI system even no technical support from DCO.
- In general the communities still maintain strong support for the Project and no any severe complaints have been received by the village authorities.

Meeting with PPO, DCO, DONRE, PONRE and village authorities at Ban Nam Ngaene for Nam Yang subproject.

- Overview of the first safeguards monitoring mission, objective and team introduction;
- Discussion on the community development activities. e.g. SRI harvesting and production and chicken raising,
- The village authorities and WUGs raised concerns about the diversion water from the canals to private fishing ponds.
- The village authorities and WUGs raised concerns about the It is also requested by the villagers of potential impact from the discharge of wastewater into the irrigation canals
- In general the communities still maintain strong support for the Project and no any severe complaints have been received by the village authorities.

	
<p>Meeting with PONRE and DONRE of Luang Namtha and village authorities and WUGs at Nam Ngaene village for Nam Yang subproject; dated 30 May 2015</p>	<p>Meeting with PONRE and DONRE and village authorities and WUGs at ViengNeua village for Hongkong subproject; dated 30 May 2015</p>

**Recommendation for the DCO and PPO**

- It is recommended to check the diversion of the water from the irrigation canal to the private fish ponds

- PPO and DCO in coordination with PONRE and DONRE to check the potential of wastewater from slaughterhouse nearby the canal.
- Review of the water fee collection management

**31 May 2015:****Meeting with PPO, DCO, village authorities, WUGs of Gnanhphiang, Siriheuang and NamKeo luang**

- Overview of the first safeguards monitoring mission, objective and team introduction;
- Discussion on the operation of the system, water use and potential conflict for Nam Dai 5 and 6 Subproject.
- It was reported again by the village authorities and villagers that they are still worried about the insufficient water for their paddy fields as the banana plantations at upstream divert and use water for the plantations and less water is available for downstream paddy fields and requested the DCO and PPO to find the proper resolutions. Additionally there are 2 big water pumping machines installed at the reservoir of Nam Dai 6 causing problem for the water to be used by villagers.
- The people also confirmed that they can grow the crops in both dry and wet seasons due to no sufficient water.
- With the concerns on water use, the DCO confirmed that the technical working groups will be setup to investigate the problem on water use conflict between owners of banana plantations and local people.
- No written complaints from the communities to each village authority on Subproject activities.

**Meeting with PPO, DCO, WUG and village authorities of villages at Ban Na Mai for Nam Gna 6-Houay Luang**

- Overview of the first safeguards monitoring of 2015, objective and team introduction;
- Discussion on the construction activities and potential impacts. It is confirmed that the construction of the subproject already 85% completed;
- Community development programs, gender issue, participation of the communities. There are some households supported by the project to involve in pilot peanut cultivation and they got good production;
- The village chiefs briefed on the project activities, the village authority confirmed that so far there has not been any concerns/complaints raised from the villagers regarding environmental and social issues from construction activities;
- It was reported by the village authorities and villagers that they are worried about the insufficient water for their paddy fields because there are more water used for increasing banana plantations. They also requested the DCO and PPO to find the proper resolutions;
- No other complaints from the communities to each village authority on Subproject activities.

		
<p>Meeting with PPO, DCO and WUGs as well as village authorities at Gnangpieng village for Nam Dai subproject; dated 31 May 2013</p>	<p>Meeting with PPO, DCO and WUGs as well as village authorities at Houay Luang village for Houayluang-Nam Gna 6 subproject; dated 31 May 2013</p>	<p>Meeting with the HH supported for pilot peanut cultivation at Houay Luang village; dated 31 May 2013</p>

### **1 June 2015:**

#### **Meeting with PPO, DCO, WUG and village authorities of Ban Thad**

The discussion during the meeting are outlined in the followings:

- Overview of the first safeguards monitoring mission of 2015, objective and team introduction;
- Discussion on the water use, system operation and water fee collection for Nam Ma OuneSubproject.
- Community development programs in villages ;
- Discussion on land use change to banana plantations was undertaken. It was confirmed by the village authority, PPO, DCO and WUG that all the changes of land use is privately or individually practiced by owners of land.
- It is afraid the remaining 10-14 hectares of paddy field would not get water and potentially these remaining paddy fields would be changed into banana plantation soon
- No other concerns/complaints raised by the villagers for Nam Ma Oune;
- It is recommended that the DCO and PPO should review the benefits of improved structures for the communities and potential impact on people livelihood in the future.

#### **Meeting with PPO, DCO, WUG and village authorities of Ban Nam Bak**

The discussion during the meeting are outlined in the followings:

- Overview of the first safeguards monitoring mission of 2015, objective and team introduction;
- Discussion on the progress of the construction. It was reported that the construction was completed
- pilot contract farming systems was initiated by PPO and DCO and the local people are happy with the system.

- People also raised concerns about the water insufficiency due to more water use form increasing banana plantation in the vicinity.
- Discussion on land use change to banana plantations was undertaken. It was confirmed by the village authority, PPO, DCO and WUG that all the changes of land use is privately or individually practiced by owners of land.
- No other concerns/complaints raised by the villagers for Nam Ma Oune;
- It is recommended that the DCO and PPO should review the benefits of improved structures for the communities and potential impact on people livelihood in the future.

Meeting with PPO and PONRE for feedback

Key issues were discussed and recommended to the PPO management level

- Discussion on land use change to banana plantations was undertaken. It was confirmed by the village authority, PPO, DCO and WUG that all the changes of land use is privately or individually practiced by owners of land. This will become more and more serious issues in the future
- People also raised concerns about the water insufficiency due to more water use form increasing banana plantation in the vicinity; particularly at upstream of the weirs.
- The village authorities and WUGs raised concerns about the diversion water from the canals to private fishing ponds in 2 subprojects in Namtha district.
- The village authorities and WUGs raised concerns about the wastewater from the slaughterhouse. It is also requested by the villagers of potential impact from the discharge of wastewater into the irrigation canals

It was said that the PPO will coordinate with relevant sectors at provincial and district levels to find the solutions of water use conflict, land use change and wastewater from slaughterhouse.



Meeting with PPO, DCO and village authority of Ban Nam Bak; dated 1 June 2015



Meeting with PPO and PONRE for feedback; dated 1 June 2015

**2 -3 June 2015:**

Meeting with PPO, DCO, WUG and village authorities of villages at Nam Pouk Gnai village office for Nam Pouk and Nam Tin subprojects

- Overview on the purpose of first safeguards monitoring mission of year 2015 and activities to be undertaken;
- Discuss on the potential environmental and social impacts from the operation of subprojects;
- Progress of EMP, GAP and EGDP implementation in subprojects
- Discussion on the water use and operation of the system;
- It was reported that more areas nearby the Nam Pouk subproject are converted to banana plantation;
- It was also reported that they have concerns with the water insufficient for their rice paddy because more water is used for increasing banana plantations in the vicinity of Nam Tin and Nam Pouk subprojects;
- Discussion on the communities development programs in subprojects.



Meeting with PPO, DCO and village authority of Ban Nam Pouk; dated 3 June 2015

#### **4 June 2015:**

##### **Meeting with Village Authority of Haddonkeo for Houay Sat Subproject**

The consultation with village authorities, villagers and WUGs was undertaken at Haddonkeo village; including the following issues:

- Overview of the first safeguards monitoring mission of 2015, objective and team introduction;
- Discussion on the issues related to the construction activities and negative and positive impacts to the villagers from Houay Sat subproject;
- The villagers are happy with the improved access road to the weir structure as they get benefits from this access road to their paddy fields.
- There are 20 HHs involved the SRI during last wet season
- Village authorities requested the PPO and DCO to rehabilitate the area disturbed during the construction particularly along sides the canal alignment.
- No complaints received from the villagers concerning the construction activities of the subproject.

##### **Meeting with Village Authorities in Houay Xo Subproject**

The consultation with 3 village authorities, villagers and WUGs was undertaken at Ban Dong village; including the following issues:

- Overview of the first safeguards monitoring mission, objective and team introduction;
- Discussion on the issues related to the construction activities and negative and positive impacts to the villagers from Houay Xo Subproject;

- It was confirmed that the villagers are happy as the construction was completed and they will get the water from the improved structures;
- Village chiefs briefed on the project activities, the village authorities confirmed that so far there has not been any concerns/complaints raised from the villagers;
- No complaints received from villagers



Meeting with village authorities of 3 villages at Dong; dated 4 June 2015



Meeting with village authority and WUG at Haddonkeo village; dated 4 June 2015

### **5 June 2015:**

#### **Meeting with PPO, DCO and village Authorities for Nam Haad Left and Right Bank Subprojects**

The consultation with village authorities, villagers and WUGs was undertaken at Phaoudom village; including the following issues:

- Overview of the first safeguards Monitoring Mission of 2015, objective and team introduction;
- Discussion on the issues related to the construction activities and negative and positive impacts to the villagers from Nam Haad Left Bank subproject;
- Water use management, operation and water fee collection for Nam Haad Right Bank
- It was confirmed by the WUG that there has not been any problems on water use/sharing.
- It was also confirmed that no any significant environmental and social impacts from these two subprojects occurred.
- It was reported that the new contract farming system of rice seeding was piloted with support from PPO and DCO. The people are satisfied with the system because they feel more secured.
- Community development programs and involvement of different ethnic groups are continuously implemented;
- Village chiefs briefed on the project activities,
- The village authorities confirmed that so far there has not been any concerns/complaints raised from the villagers; villagers are happy with the progress of construction work.



Meeting with village authorities at phaoudom village; dated 5 June 2015



Site visit at Nam Haad Left and Right Banks; dated 5 June 2015

#### Meeting with PPO and PONRE for feedback

- Water use conflict between the local people and the owners of the banana plantations for Nam Tin subproject. The PPO and DCO have been recommended to find the proper solutions and mitigation.
- Site rehabilitation upon the completion of construction work of Houay Sat subproject e.g. spoil dumped in the paddy field of villagers, removal of temporary construction camp facilities and construction wastes on site.

#### **5. Achievements**

1. Completed first monitoring and site visit 18 subprojects in 9 districts of 3 provinces for site observation, water sampling and public consultations;
2. The field trip was well supported by PPO, PONRE, DCO and DONRE from each provinces, districts and villages authorities;
3. 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;
4. Meetings with PPOs, DCOs, PONREs, DONREs, village authorities, WUGs, AHs as well as villagers in subprojects;
5. Completed water sampling and testing in 16 subprojects year in districts of 3 Provinces;
6. water sampling and analysis for agrochemical parameters of 2 subprojects;
7. Soil sampling and analysis for agrochemical parameters of in 3 subprojects; and
8. Provision of feedback to the PPOs at the end of mission in each province to follow up for further improvement.



ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ .. (ໂຄງປັບງານ) ແລະ ສິ່ງແວດລ້ອມ ຮອບ ພື້ນ 3  
 ເມືອງ ຫຼວງພະບາງ..... ຄັ້ງວັນທີ 29/5/2015, ທີ່ບ້ານ ລຸດ ເມັດ

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ສ. ເວາສອນບຸນຢູ່ນ	ໄຕ້ຕາ	ສ. ສຳນັກເຊີນຸ່ມ	55686450	ເວາສອນ
2	ນ. ບົວວິລ	ລາວລຸ່ມ	ສຳນັກແຂວງ	9687322	ບົວວິລ
3	ສ. ໄພັດສິວາວິໄພັດສິວາ	ລາວລຸ່ມ	ສຳນັກແຂວງ	6548871	ໄພັດສິວາ
4	ທ. ດຳນຸນອາ	ລາວລຸ່ມ	ສຳນັກແຂວງ	56161461	ດຳນຸນອາ
5	ທ. ບຸນຢູ່ນ	ລາວລຸ່ມ	ສຳນັກແຂວງ	96944634	ບຸນຢູ່ນ
6	ທ. ກຳມະ ສຸກສະນ	ລາວລຸ່ມ	FES	22333328	ກຳມະສຸກ
7	ທ. ສິມສິມ ທ່ານສິມ	ໄຕ້ຕາ	ສຳນັກແຂວງ	96916881	ສິມສິມ
8	ສ. ສິມສິມ ແອລແອລ	—	—	99834455	ສິມສິມ
9	ທ. ສິມສິມ	ຍວງ	ສຳນັກແຂວງ	5508443	ສິມສິມ
10	ທ. ສິມສິມ ແອລແອລ	—	—	6785112	ສິມສິມ
11	ທ. ສິມສິມ	ຍວງ	ສຳນັກແຂວງ	55717645	ສິມສິມ
12	ທ. ສິມສິມ ແອລແອລ	—	—	56528799	ສິມສິມ
13	ທ. ສິມສິມ ທ່ານສິມ	—	—	5548871	ສິມສິມ
14	ທ. ພິດທະພານ ສຸກສະນ	ລາວລຸ່ມ	FES	22223091	ພິດທະພານ
15	ທ. ສິມສິມ	ໄຕ້ຕາ	ສຳນັກແຂວງ	27391985	ສິມສິມ
16	ທ. ສິມສິມ ສິມສິມ	ໄຕ້ຕາ	ສຳນັກແຂວງ	27999013	ສິມສິມ
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ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ປົກ.ປັກ.ສິດ.ແລ.ເຊີ.໑.໒໒໐.໑.໑໒໑  
 :ປີອງ ອີງ..... ຕໍ່ງວັນທີ... 20/5/2015, ທີ່ບ້ານ... ມ.ໂງ.ໂຫມ່.....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊົນເຜົ່າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ວ ບຸນບຸນ	ລາວ			
2	ນ. ໂພນທັນ	ລາວ		59797754	ນ ບ ມ ຕ ວ
3	ນ. ສິມທາ	ລາວ		99795511	ວິວແອັດ
4	ນ. ສອງແສງ	ລາວ		55886582	ສິມທາ
5	ນ. ບອດ	ລາວ		59556109	ສອງແສງ
6	ທ. ສອງແສງ	ລາວ		5981663	ນ. ບອດ
7	ທ. ສິ	ລາວ		59483440	ສິ
8	ທາຍ ມວນ	ລາວ		54355025	ທ ສິ
9	ງ ທ່າ ລິ ວ ມ	ລາວ		58015181	ທາຍ ມວນ
10	ທ. ທາຍ ມວນ	ລາວ		55726939	ງ ທ່າ ລິ ວ ມ
11	ທ. ສິມທາ ສຸວັນ	ລາວ	FES	54407207 22223006	ສິມທາ
12	ນ. ສິມທາ	ລາວ	ກ/ປ ສຸວັນ	55749871	ສິມທາ
13	ນ. ສອງພາ	ລາວ	ກຸມ ສິມທາ	28834566	ສອງພາ
14	ທາຍ ສາ	ລາວ	ປ: ສາຍ ກຸມ	54405467	ທາຍ ສາ
15	ວິນ ທ່າ ລາ	ລາວ		22391329	ວິນ ທ່າ ລາ
16	ທ. ສິມທາ ສຸວັນ	ລາວ	ສິມທາ ສຸວັນ	22999808	ສິມທາ
17	ທ. ທາຍ ສຸວັນ	ລາວ	ສິມທາ ສຸວັນ	28855488	ທາຍ ສຸວັນ
18	ນ. ສິມທາ	ລາວ	PPD	96873222	ສິມທາ
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 ເມືອງ ສິງ ຕື້ງວັນທີ 30/5/2015 ທີ່ບ້ານ ປ່າງຊາງ

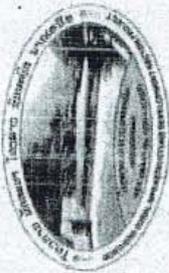
ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊື່ເວົ້າ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ທ. ພາກ ພາກ	ຊີ	ທ. ພາກພາກ	91197616	Cest
2	ທ. ພາກ ພາກ	ຊີ	ທ. ພາກພາກ	85992222	ສິງ
3	ທ. ພາກ ພາກ	ຊີ	-	52886805	ສິງ
4	ທ. ພາກ ພາກ	ຊີ	-	98608098	ສິງ
5	ທ. ພາກ ພາກ	ຊີ	-	54205403	ສິງ
6	ທ. ພາກ ພາກ	ວາງ	ທ. ພາກພາກ	18834966	ສິງ
7	ທ. ພາກ ພາກ	ວາງ	ທ. ພາກພາກ	5797457	ສິງ
8	ທ. ພາກ ພາກ	ວາງ	ທ. ພາກພາກ	22999803	ສິງ
9	ທ. ພາກ ພາກ	ວາງ	FES (ພາກ)	92223094	ສິງ
10	ທ. ພາກ ພາກ	ວາງ	FES	2233328	ສິງ
11	ທ. ພາກ ພາກ	ວາງ	ທ. ພາກພາກ	56288711	ສິງ
12	ທ. ພາກ ພາກ	ວາງ	ທ. ພາກພາກ		ສິງ
13	ທ. ພາກ ພາກ	ວາງ	-		ສິງ
14	ທ. ພາກ ພາກ	ວາງ	ສ. ພາກ	54579588	ສິງ
15	ທ. ພາກ ພາກ	ວາງ	PPC	96873222	ສິງ
16	ທ. ພາກ ພາກ	ວາງ	ທ. ພາກພາກ	55167625	ສິງ
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ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ ... ວົງປະຊຸມ ສຳລັບ ການ ສື່ສານ ການ ສື່ສານ .....  
 ວັນທີ ..... ວັນທີ 31/5/2015 ທີ່ບ້ານ ... ສົມບັດ ... ສົມບັດ .....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ຊື່ເພີ່ມ	ພາກສ່ວນ	ເບີໂທລະສັບ	ລາຍເຊັນ
1	ນ. ພອສະໂຫວນ	ນາວລິນ	ກະສັດກຳເນີຍ	85488711	ທຸນຍາ
2	ນ. ພູ	ລາວລິນ	ສະຫະພັນ	97995395	ນ. ພູ
3	ທ. ສິນ ສິນ	ສິ	ກຸມພາພິມ	52844209	ທ. ສິນ ສິນ
4	ທ. ພອສະໂຫວນ	ອາລາ	ຮຽນສາທິດພະຍາຍາມ	9630306	ທ. ພອສະໂຫວນ
5	ທ. ສິນ ສິນ ສິນ	ນາວລິນ	FES	22333328	ທ. ສິນ ສິນ
6	ທ. ສິນ ສິນ ສິນ	ທິນທາ	ທ. ສິນ ສິນ	22944803	ທ. ສິນ ສິນ
7	ທ. ສິນ ສິນ ສິນ	ລາວ	ທ. ສິນ ສິນ	23933343	ທ. ສິນ ສິນ
8	ທ. ສິນ ສິນ ສິນ	ນາວລິນ	ສິ ພິ	59497489	ທ. ສິນ ສິນ
9	ທ. ສິນ ສິນ ສິນ	ອຸສາ	ທ. ສິນ ສິນ	28747288	ທ. ສິນ ສິນ
10	ທ. ສິນ ສິນ ສິນ	ສິກາດຳ	ທ. ສິນ ສິນ	98982648	ທ. ສິນ ສິນ
11	ທ. ສິນ ສິນ ສິນ	ລາວລິນ	ທ. ສິນ ສິນ	5541902	ທ. ສິນ ສິນ
12	ທ. ສິນ ສິນ ສິນ	ລາວລິນ	ທ. ສິນ ສິນ	9687320	ທ. ສິນ ສິນ
13	ທ. ສິນ ສິນ ສິນ	ລາວ-ໄທ	ທ. ສິນ ສິນ	55487132	ທ. ສິນ ສິນ
14	ທ. ສິນ ສິນ ສິນ	ລາວລິນ	FES	22223094	ທ. ສິນ ສິນ
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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, Xayssetha District, Vientiane Capital,  
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① ແບ່ງ ບຸກຄົນ : ໐ 9:30  
 ② ຫ້າມ ບຸກຄົນ : ໑8/5/2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຕິດຕອບ	ມາຈາກພາກສ່ວນ	ກະຊວງເຕີກ (V) ຫຼື ຊຽນຊື່ເຕົ້າຂອງຕົນເອງໃສ່ທ້ອງລຸ່ມນີ້				ລາຍເຊັນ	ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ໂທລະສັບ
					ຂົນເຜົ່າຕາມ ໝວດ ຫາສາ ສາວ-ໄທ	ຂົນເຜົ່າຕາມ ໝວດ ຫາສາ ມົງ-ອີລມຽນ	ຂົນເຜົ່າຕາມ ໝວດ ຫາສາ ມອນ-ຂະແມ	ຂົນເຜົ່າຕາມ ໝວດ ຫາສາ ຈີນ-ຕີເບດ		
1	ທ. ແພັດທິດາ ຄຸດອນ	ຊ	ຫຼັງ ຜູ້ ສຳ ລັບ ການ ຈັດ ກຳ ນົດ	FES	<input checked="" type="checkbox"/>				<i>[Signature]</i>	22223094
2	ທ. ສິມສິມາ ສຸກວິໄນ	ຊ	ຊຽນ ຊື່ ສຳ ລັບ ການ ຈັດ ກຳ ນົດ	FES	<input checked="" type="checkbox"/>				<i>[Signature]</i>	22333328
3	ທ. ສິມສິມາ ສຸກວິໄນ	ຊ	ຊຽນ ຊື່ ສຳ ລັບ ການ ຈັດ ກຳ ນົດ	ກະຊວງ ກະສິ ກຳ ນົດ			<input checked="" type="checkbox"/>		<i>[Signature]</i>	95923879
4	ທ. ພິເຊີ ວິໄນ ວິ	ຊ	S/M	NRI ແບ່ງ		<input checked="" type="checkbox"/>			<i>[Signature]</i>	7901771
5	ສາວ ສິມສິມາ	ຊ	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ					<i>[Signature]</i>	58000887
6	ທ. ສິມສິມາ	ຊ	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ					<i>[Signature]</i>	96147244
7	ສາວ ສິມສິມາ	ຊ	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ					<i>[Signature]</i>	56927325
8	ທ. ສິມສິມາ	ຊ	V/R	ສຳ ລັບ ການ ຈັດ ກຳ ນົດ					<i>[Signature]</i>	



Lao People's Democratic Republic  
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 DEPARTMENT OF PLANNING  
 NORTHERN RURAL INFRASTRUCTURE DEVELOPMENT SECTOR  
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ເລກຢູນິດ 26.05.2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະຊວງປ່າໄຫຼກ (V) ຫຼື ຊຸມຊົນເຜົ່າຂອງຕົນເອງໃສ່ໜ້ອງລຸ່ມນີ້				ລາຍເຊັນ	ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ໂທ
					ຊົນເຜົ່າຕາມ ໝວດ ພາສາ ລາວ-ໄທ	ຊົນເຜົ່າຕາມ ໝວດ ພາສາ ມົ້ງ-ອີລຸງຽນ	ຊົນເຜົ່າຕາມ ໝວດ ພາສາ ມອນ-ຂະແມ	ຊົນເຜົ່າຕາມໝວດ ພາສາ ຈີນ-ຕິເບດ		
1	ກັງຍາ ຈຸດສະກຸນ	ຍ	ຊີວິດການເຊື່ອມຕໍ່	FES	✓				<i>[Signature]</i>	22333328
2	ເພັດດາລາ ອຸດອນ	ຍ	ຜົນຕອນເຊື່ອມຕໍ່	FES	✓				<i>[Signature]</i>	000290024
3	ນ.ນາມ ຈຸດວິສິດ	ຍ	ວິຊາການສຳຄັນ	ບຸກຄົນ	✓				<i>[Signature]</i>	54478887
4	ທ. ພິດິດ ພັນທະວິ	ຍ	ຊີວິດການເຊື່ອມຕໍ່	NR1 ພວ) ພວ)			✓		<i>[Signature]</i>	78101971.
5	ທ. ຈຸດສະກຸນ	ຍ	ຊີວິດການເຊື່ອມຕໍ່	ພວ)					<i>[Signature]</i>	54059646.
6	ທ. ພິດິດ ພັນທະວິ	ຍ	ຊີວິດການເຊື່ອມຕໍ່	ພວ)					<i>[Signature]</i>	28761918
7	ທ. ພິດິດ ພັນທະວິ	ຍ	ຊີວິດການເຊື່ອມຕໍ່	ພວ)					<i>[Signature]</i>	224329894.
8	ທ. ຈຸດສະກຸນ	ຍ	ຊີວິດການເຊື່ອມຕໍ່	ພວ)					<i>[Signature]</i>	230404777

ເມັດ ບອກ ວຽງ 26/5/2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່/ຕັດສິນສອບ	ມາຈາກ/ພາກສ່ວນ	ກະລຸນາຕິດ (✓) ຫຼື ຂຽນຊື່ເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ລາຍເຊັນ	ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ພົວພັນ
					ຊົນເຜົ່າຕາມພວດ ພາສາລາວ-ໄຕ	ຊົນເຜົ່າຕາມພວດ ພາສາ ມົ້ງ-ອີລຸ່ງນຸນ	ຊົນເຜົ່າຕາມພວດ ພາສາ ມອນ-ຂະແມ	ຊົນເຜົ່າຕາມພວດ ພາສາ ຈີນ-ຕິເບດ		
10	ນາງ ສິມສິມສິມ	ຍິງ	ອຸປະກອນ	ນາງ ສິມສິມສິມ	✓				ສິມສິມສິມ	020231422
11	ນາງ ສິມສິມສິມ	ຍິງ	ອຸປະກອນ	ນາງ ສິມສິມສິມ					ສິມສິມສິມ	0305753485
12	ນາງ ສິມສິມສິມ	ຍິງ	ອຸປະກອນ	ນາງ ສິມສິມສິມ	✓				ສິມສິມສິມ	23903506
										00028760590

Lao People's Democratic Republic  
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**ໃບລົງທະບຽນ**

ຫົວຂໍ້: ມີ. ຊຸມ. ອອກ. ຄື ມາດຕະການ ກຳລັງ ທີ່ ຊຸມ ກຳລັງ ກຳລັງ ( 2815/2015 ) @ 10: ໙ ໂມງ.

ໂຄງການຍ່ອຍ: ..... ບ້ານ: ..... ເມືອງ: ..... ແຂວງ: ..... ຕັ້ງວັນທີ່: .....

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ພັກທີ່ຮັບຜິດຊອບ	ມາຈາກພາກ ສ່ວນ	ກະຊວງປຶກ (✓) ຫຼື ຊຸມຊື່ເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້		ທີ່ຢູ່ສຳລັບການ ຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
					ຊົນເຜົ່າຕາມໝວດ ພາສາລາວ-ໄທ	ຊົນເຜົ່າຕາມໝວດ ຊົນເຜົ່າຕາມໝວດ ພາສາອື່ນ-ອີ່ກືນ		
1	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓			
2	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓			
3	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓			
4	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓			
5	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓			
6	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓			
7	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓		551822014	
8	ທ່ານ ຊຸມ ສິມ	ຊ	ສາຍ ສິມ	ສິມ	✓		0306700802	

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ກະລຸນາຕືກ (✓) ຫຼື ຂຽນຊື່ເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລູມນີ້				ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ພົວພັນ	ລາຍເຊັນ
					ຊົນເຜົ່າຕາມໝວດພາສາລາວ-ໄຕ	ຊົນເຜົ່າຕາມໝວດພາສາກຳ-ອີລູກຽນ	ຊົນເຜົ່າຕາມໝວດພາສາມອນ-ຂະແມ	ຊົນເຜົ່າຕາມໝວດພາສາຈີນ-ຕີເບດ		
9	ທ. ຂອງສິດ ສິມທະວາ	ຊ	ຮຽນ/ກວມ	NM ມ. ມ. ມ.		✓		78101971	JK	
10	ທ. ກິດທິ ສາສະນາ	ຊ	ຮຽນ/ກວມ	FES		✓		22333328	JK	
11	ທ. ເພັດສາລາ ສິມທະວາ	ຊ	ຮຽນ/ກວມ	FES				22223092	JK	
12	ຂ. ສິມທະວາ	ຍ	ຮຽນ/ກວມ	ກະສັດສິມທະວາ			✓	07011962023	Subham	

ຍັງຢືນຈາກ



ງາຍີ ໄຊຍະສາດ

Lao People's Democratic Republic  
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PPO - 25/05/2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ປະເມີນຊ່ວຍ	ມາຈາກພາກສ່ວນ	ກະດູນາທິກ (V) ຫຼື ຊຸມຊົນເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລູກນີ້				ລາຍເຊັນ	ທິດສະດີສຳລັບການຕິດຕໍ່ພົວພັນ
					ຊົນເຜົ່າຕາມພວດພາສາລາວ-ໄທ	ຊົນເຜົ່າຕາມພວດພາສາຫວຽດ-ລາວ	ຊົນເຜົ່າຕາມພວດພາສາມອນ-ຂະເໝ	ຊົນເຜົ່າຕາມພວດພາສາຈີນ-ຕີເບດ		
1	ນົຍາ ລາ ສຸ ກຸ	ຸ	ວິຊາສາດສາດສາດ	FES					<i>[Signature]</i>	22333328
2	ເພັດທະນາ ອຸດອນ	ຸ	ຊັບສິນສາດສາດສາດ	FES					<i>[Signature]</i>	222222004
3	ນ. ສິມສິນ ສິມສິນ	ຸ	ນ/ນ 2 ພາຍສາດສາດສາດ	NRI ນ/ນ				✓	<i>[Signature]</i>	55787004
4	ນ. ສິມສິນ ສິມສິນ	ຸ	ວິຊາສາດສາດສາດ	NRI ນ/ນ					<i>[Signature]</i>	229734263
5	ນ. ສິມສິນ ສິມສິນ	ຸ	ນ/ນ 1	PPO	✓				<i>[Signature]</i>	29881544
6	ນ. ສິມສິນ ສິມສິນ	ຸ	ວິຊາສາດສາດສາດ	ພະນັກງານ				✓	<i>[Signature]</i>	55821650
7	ນ. ສິມສິນ ສິມສິນ	ຸ	ວິຊາສາດສາດສາດ	NRI ນ/ນ				✓	<i>[Signature]</i>	78101771
8	ນ. ສິມສິນ ສິມສິນ	ຸ	ວິຊາສາດສາດສາດ	ພະນັກງານ	✓				<i>[Signature]</i>	54247887

ສັນຕິ ພິມມະສິດ  
*[Signature]*

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@ : 19:49, ເມັງເມັງເມັງ ພອດ - Nam Thae  
 ວຽກ  
 27/5/2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ພິກັດສັບຕິດຂອບ	ມາຈາກນາກສ່ວນ	ກະຊວງເຕັກ (V) ຫຼື ຂຽນຊື່ເຕັກຂອງຕົນເອງໃສ່ຫ້ອງລຸ່ມນີ້				ລາຍເຊັນ	ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ທົ່ວໄປ
					ສິນເຊີງຕາມພວດ ພາສາລາວ-ໄທ	ສິນເຊີງຕາມພວດ ພາສາມົ້ນ-ອີລຽນ	ສິນເຊີງຕາມພວດ ພາສາມອນ-ຂະແມ	ສິນເຊີງຕາມພວດ ພາສາຈີນ-ເຕີເບດ		
1	ເພັດທາດາດາ ຊຸດອນ	ຊ	ທ່ານ ວິຈາກມ	FES	✓				ສຸວັນ	22223094
2	ກຸ້ງທາ ສຸກສະນາ	ຊ	ວິທານ ສິດສິດ	FES	✓				ຈຸດ	22333328
3	ທິນທິນ	ຊ	ສິນທິສິດສິດ						ອາວິນ	22934564
4	ທ. ທ. ສິນທິ ສິດສິດ	ຜ	ສິນທິ	DEO	✓				ສິນ	22860092
5	ທ. ທາງທິ	ຊ	ວິທານ	ສະໄໝ					ສິນ	56672680
6	ທ. ທິນທິ ສິດສິດ	ຊ	ທິນທິ	ສະໄໝ			✓		ສິນ	56861116
7	ທ. ທິນທິ ສິດສິດ	ຊ	ວິທານ	ສະໄໝ	✓				ສິນ	23904777
8	ທ. ທາງທິ	ຜ	ວິທານ	ພຽງ	✓				ສິນ	54478887



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, Xaysaththa District, Vientiane Capital,  
 Lao PDR Telephone: +856 21 990 249 Email: npmo.nri@agrmail.com

• @ ໂມງຄູນວັດ : 10:12 (29/5/2015)

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ພັດທະນາສິດຂອບ	ບາດກະນາກຳລັງ	ກະຊວງເຕັກ (1) ຫຼື ຊຸມຊົນເຜົ່າຂອງຕົນເອງໃສ່ຫ້ອງລູກມີ				ລາຍເຊັນ	ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ພົວພັນ
					ຊົນເຜົ່າຕາມພວດ	ພວດ ພາສາລາວ-ໄທ	ຊົນເຜົ່າຕາມພວດ ພາສາ ມົ້ນ-ອີລມຽນ	ຊົນເຜົ່າຕາມພວດ ພາສາ ມອນ-ຂຽເຟ		
1	ເພັດດາ ຄາ ຊອນ	ຊ	ອຸທິດ ວິຈາດ	FES					<i>[Signature]</i>	023529094
2	ທ. ຈຸນວນ ກວັດວິໄຈ	ຊ	ວິຊາການ ກຳລັງ	ກະຊວງ ພັດທະນາ					<i>[Signature]</i>	58005252
3	ທ. ສິວິໄທ ຊາວນາ	ຊ	ວິຊາການ ກຳລັງ	FES					<i>[Signature]</i>	22333328
4	ທ. ສິວິໄທ ຊາວນາ	ຊ	ວິຊາການ ກຳລັງ	DCO-Boonke					<i>[Signature]</i>	29961569
5	ທ. ສິວິໄທ ຊາວນາ	ຊ	ວິຊາການ ກຳລັງ	ແມ່ຍິງ					<i>[Signature]</i>	0205273617
6	ທ. ສິວິໄທ ຊາວນາ	ຊ	ວິຊາການ ກຳລັງ	ສາວດີວິນ					<i>[Signature]</i>	02055547885
7	ທ. ສິວິໄທ ຊາວນາ	ຊ	ວິຊາການ ກຳລັງ	ພຸດສະ 2					<i>[Signature]</i>	54778887
8	ທ. ສິວິໄທ ຊາວນາ	ຊ	ວິຊາການ ກຳລັງ	ທ/ກຳລັງ					<i>[Signature]</i>	22848522

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ພື້ນທີ່ເຮັດເຊອບ	ບາງາກາດ ຈາກລ່ວນ	ກະຊວງ/ໜີ້ (V) ຫຼື ຊຸມຊົນເຜົ່າຂອງຕົນເອງ ໃສ່ທ້ອງຖານີ້				ລາຍເຊັນ	ທີ່ຢູ່ສຳລັບການຕິດຕໍ່ພ້ອມໝູ່
					ສົມເທົ່າຕາມ ໝວດ ພາສາ ລາວ-ໄທ	ສົມເທົ່າຕາມ ໝວດ ພາສາ ມົ້ນ-ສີລຸງປາບ	ສົມເທົ່າຕາມ ໝວດ ພາສາ ມອນ-ສະແມ	ສົມເທົ່າຕາມ ໝວດ ພາສາ ຈີນ-ຕິເບດ		
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					59652879
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					5496634
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					54315650
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					54505380
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					58002379
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					57217212
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					57002696
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					54311411
	ທ້ອງຖານີ້	ຊ	ທ້ອງຖານີ້	ທ້ອງຖານີ້	✓					54311411



ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ແຂວງ

ໂຄງການ ພັດທະນາ ໂຄງລ່າງ ຊຸມນະບົດ ພາກເໜືອ

ການ ປະເມີນ ຜົນກະທົບ ທາງ ຄົວສັງຄົມ ລັອກ ໂຄງການ ມັດ 2  
ຢູ່ ທີ່ ບ້ານ ສີ ປູກ ທາງ ຄົງ ວັນ ທີ່ 4/6/2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ໜ້າທີ່ຮັບຜິດຊອບ	ເພດ		ມາຈາກພາກສ່ວນ	ໂທລະສັບ	ລາຍເຊັນ
			ຊາຍ	ຍິງ			
1							
2	ມ. ສິວ ອາວ ລາດ	ວິຊາການກຸ່ມ		✓	PPO	55089499	<i>[Signature]</i>
3	ບຸນ ສະ		✓				
4	ໂພນ ພູ ສອງ		✓				
5	ກອງ ແກວ		—			58727584	
6	ວິໄນ ທິນ		✓				
7	ສິດ ຈິນ ພິ		✓			0305064474	<i>[Signature]</i>
8	ສິ ທ		✓		ກຸ່ມ ສີ ປູກ ມັດ	52517400	<i>[Signature]</i>
9	ສິ ຢາ		—				
10	ສິ ພາ		✓				
11	ມິ ອິ ອາ		✓			56709752	<i>[Signature]</i>
12	ເປີ ສິ		—				
13	ອິ ສິ		—				
14	ພິ ພິ ອິນ		—				
15	ອິ ສິ ທິ		—				
16	ວິ ພິ ພິ		✓				
17	ອິ ພິ ສິ ອິ		✓				
18	ອິ ພິ ສິ		✓	II			
19	ມ. ສິ ອິ ສິ			II			
20	ອິ ສິ			II			<i>[Signature]</i>
21	ບາ ອິ ພິ		✓				
22	ອິ ພິ ອິ		✓				
23	ມ. ສິ ອິ ສິ			✓		95128459	<i>[Signature]</i>
24	ມ. ອິ			✓			<i>[Signature]</i>

25	၂၂. ဝေဠိ					
26	၂၂. ဝေဠိ					
27	၂၂. ဝေဠိ					
28	၂၂. ဝေဠိ					
29	၂၂. ဝေဠိ			၂	၅၂၃၆၃၃၄၇	၀၀၇
30	၂၂. ဝေဠိ			၂		
31	၂၂. ဝေဠိ			၂		
32	၂၂. ဝေဠိ			၂		
33	၂၂. ဝေဠိ			၂		
34	၂၂. ဝေဠိ			၂		
35	၂၂. ဝေဠိ			၂		
36	၂၂. ဝေဠိ			၂		
37	၂၂. ဝေဠိ			၂		
38	၂၂. ဝေဠိ			၂		
39	၂၂. ဝေဠိ			၂		
40	၂၂. ဝေဠိ			၂		
41	၂၂. ဝေဠိ			၂		
42	၂၂. ဝေဠိ			၂	၅၂ ၃၃၃ ၅၈၀	
43	၂၂. ဝေဠိ			၂		
44	၂၂. ဝေဠိ		✓	၂	၅၂၃၃၃၅၀၇	S. ၀၀၀၇
45	၂၂. ဝေဠိ					
46	၂၂. ဝေဠိ					
47	၂၂. ဝေဠိ	DCO	✓		၅၂၃၃၃၅၀၇	၅၂၃၃၃၅၀၇
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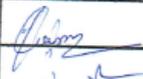
ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ແຂວງ

ໂຄງການ ພັດທະນາ ໂຄງລ່າງ ຊົນນະບົດ ພາກເໜືອ

ບາດ ປະເມີນ ຜົນ ກະທົບ ທາງ ສາມາດ ສັງ ແວດ ລວມ ຂອງ ກິດ ກຳ ມາ ສິ ຍ  
ທາງ ສາມາດ ສັງ ຢູ່ ບາດ ທາດ ດາວ ແກ້ວ ສັງ ວິມ ທີ່ 3/6/2015

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ໜ້າທີ່ຮັບຜິດຊອບ	ເພດ		ມາຈາກພາກສ່ວນ	ໂທລະສັບ	ລາຍເຊັນ
			ຊາຍ	ຍິງ			
1							
2	ນ. ແສ່ງອາ	ວິຊາ ກາມ ຊຸມ ກຸມ		✓	PPD	55087499	<del>ສິມ</del>
3	ນ. ແສ່ງອາ	—		✓		91126444	ສິມ
4	ນ. ວິມ ສີ	-		✓		-	ສິມ
5	ກາງ ແສ່ງ	-					
6	ສິມ ສິ	ສິມ				55675191	ສິມ
7	ສິມ ສິ	ແສ່ງ ສິມ					ສິມ
8	ສິມ ສິ	—					ສິມ
9	ສິມ ສິ	—				56880247	ສິມ
10	ສິມ ສິ	—					ສິມ
11	ສິມ ສິ	—		✓		58655318	ສິມ
12	ສິມ ສິ	—				58611169	ສິມ
13	ສິມ ສິ	—					ສິມ
14	ສິມ ສິ	—		✓			ສິມ
15	ນ. ວິມ ສິ	—					ສິມ
16	ນ. ກາງ ສິມ	—		✓			ສິມ
17	ນ. ສາ ສິມ	—					ສິມ
18	ສິມ ສິ	—					
19	ສິມ ສິ	—					
20	ສິມ ສິ	—					
21	ສິມ ສິ	—	✓			91006467	ສິມ
22	ສິມ ສິ	—	✓				
23	ສິມ ສິ	—		✓		599736167	ສິມ
24	ສິມ ສິ	—		✓			

25	217 ຄ			✓			
26	72 ທຸກໆ	ສຽງ ດາວ ກວ້າງ					
27	10 ສິ່ງ ສຳ	ສຽງ ດາວ	✓		ສຽງ ດາວ	55839718	
28	ສິ່ງ ສຳ	ສຽງ ດາວ	✓		ສຽງ ດາວ		ສຽງ ດາວ
29	25 ທຸກໆ	ສຽງ ດາວ		✓	ສຽງ ດາວ		ສຽງ
30	11 ສິ່ງ	ສຽງ ດາວ		✓			ສຽງ ດາວ
31	11 ສິ່ງ	ສຽງ ດາວ	✓		ສຽງ ດາວ	28380298	
32							
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59							ກອງແກ້ວ ຈັມທາວິງ
60							





ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ເພດ	ໜ້າທີ່ຮັບຜິດຊອບ	ມາຈາກພາກສ່ວນ	ຊົນເຜົ່າ, ໝວດພາສາປາກເວົ້າ		ເບີໂທຕິດຕໍ່	ລາຍເຊັນ
					ລາວ-ໄຕ	ມົ້ງ-ອີ່ມຽນ ມອນ-ຂະແມ		
22	ນ. ກວັດສິດສິດ	ຊາຍ	ວິຊາການສູນກາງ	PPO	✓		55089499	
23	ທ. ສາທິວ ພິອາວິກິດ	ຊາຍ	ພະນັກງານສູນກາງ	ອາຊຽນ	✓		50539111	
24	ທ. ສິດສິດ	ຊາຍ					0309031218	
25	ທ. ສິດສິດ	ຊາຍ						
26	ທ. ສິດສິດ	ຊາຍ						
27	ທ. ສິດສິດ ພິອາວິກິດ	ຊາຍ	ສູນກາງ	FES(ປ.ຊ)			00000000	
28	ທ. ສິດສິດ ພິອາວິກິດ	ຊາຍ	ສູນກາງ	CEO			22 381 551	
29	ທ. ສິດສິດ ພິອາວິກິດ	ຊາຍ	ສູນກາງ	PPO			55544455, 2284451	
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ໝາຍເຫດ: ຂໍອ້າງໄພສໍາລັບການຖາມຊົນເຜົ່າຂອງທ່ານ ເພາະພວກເຮົາກໍາລັງປະຕິບັດຕາມກອບແຜນການປົກຄອງຊົນສວນນ້ອຍ(ຕາມເງື່ອນໄຂADBວາອອກ)



ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ແຂວງ

ໂຄງການ ພັດທະນາ ໂຄງລ່າງ ຊຸມນະບົດ ພາກເໜືອ

ການປະເມີນ ເວັ້ນກະທົບ ທາງສາມສັງຄົມ ລວມ ຂອງໂຄງການປະ  
ຫວັຍກະ ປ່າໄມ້ ຢູ່ບາດົງ ໂພນ ວັນ ທີ່ 2/6/2015.

ລ/ດ	ຊື່ ແລະ ນາມສະກຸນ	ໜ້າທີ່ສັບເກດຊອບ	ເພດ		ມາຈາກພາກສ່ວນ	ໂທລະສັບ	ລາຍເຊັນ
			ຊາຍ	ຍິງ			
1							
2	ມ. ແກ້ວສາ	ວິຊາການກະສິກຳ		✓	PP0	550 89499	
3	ມ. ແກ້ວສາ ແກ້ວສາ	— —		✓	ລ. ຍ. ມ.	91126444	
4	ມ. ພິມ ສີ ຄຳພອນ	—		✓	ທ ສ ຈ ມ.	96888872	
5	ທ. ບຸນຮຸກສິກີ	ອຸມເວທນ	✓		ບ. ອງ	56728200	
6	ທ. ພິມ ຊີ	ແກ້ວສາ	✓	✓	ບ ອ ີ		
7	ທ. ນິເມຍ	ປ/ຊ.	✓		—		
8	ທ. ຂຽນ	ບາດົງ ທາງສາມສັງຄົມ			—		
9	ທ. ພິມ ພິມ	ປ/ຊ.	✓		—		
10	ມ. ແອັງເວີ	ອະມະ ກຸມ		✓	—		
11	ມ. ທາງສິມ	ອະມະ ກຸມ	✓	✓	—	59508783	
12	ມ. ພິມ ພິມ	ປ/ຊ.		✓		59527056	
13	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
14	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
15	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
16	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
17	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
18	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
19	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
20	ມ. ພິມ ພິມ	ປ/ຊ.	✓				
21	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
22	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
23	ມ. ພິມ ພິມ	ປ/ຊ.		✓			
24	ມ. ພິມ ພິມ	ປ/ຊ.		✓			



25	ឃ.ស្រែចម្រុះ	ស/ក		✓	←		
26	ឃ.ស្រែចម្រុះ	ស/ក		✓	←		
27							
28	ព.កាសង្វាយ	គ.ប.ស.ក	✓		ប.ស.ក	58083228	ស្រែ
29	ឃ.ស្រែចម្រុះ	ស/ក	←		ប.ស.ក		ស្រែ
30	ស.ស្រែចម្រុះ	ប.ស.ក	✓		ប.ស.ក	58103585	ស្រែ
31	ស.ស្រែចម្រុះ	ស/ក	←		ប.ស.ក		
32	ស.ស្រែចម្រុះ	ស/ក	✓		ប.ស.ក		ស្រែ
33	ស.ស្រែចម្រុះ	គ.ប.ស.ក	✓		ស.ស.ក	57516977	ស្រែ
34	ស.ស្រែចម្រុះ		✓		ស.ស.ក		ស្រែ
35	ស.ស្រែចម្រុះ		✓		←		ស្រែ
36	ស.ស្រែចម្រុះ	គ.ប.ស.ក	✓		ប.ស.ក	58044254	ស្រែ
37	ស.ស្រែចម្រុះ	ស/ក	✓		ប.ស.ក		ស្រែ
38	ប.ស.ក	ស/ក	✓		ប.ស.ក		ស្រែ
39	ស.ស្រែចម្រុះ	ស/ក	✓		ប.ស.ក		
40	ស.ស្រែចម្រុះ	ស/ក		✓	ប.ស.ក		
41	ស.ស្រែចម្រុះ	ស.ស.ក			ស.ស.ក	56981768	ស្រែ
42	ស.ស្រែចម្រុះ	ស.ស.ក			ស.ស.ក	55092009	ស្រែ
43	ស.ស្រែចម្រុះ	គ.ប.ស.ក	✓				ស្រែ
44	ស.ស្រែចម្រុះ	គ.ប.ស.ក	✓		ស.ស.ក	56163136	ស្រែ
45	ស.ស្រែចម្រុះ	ស.ស.ក			ស.ស.ក	56774176	ស្រែ
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### Annex 5: Document for contract agreement for contract farming system



ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖານວອນ

ເມືອງລອງ

ຫ້ອງການອຸດສາຫະກຳ ແລະ ການຄ້າ

ເລກທີ 069/ອຄ-ມລ

ລົງວັນທີ 29/12/2014

## ສັນຍາ

### ຜູກພັນວ່າດ້ວຍການສົ່ງເສີມ ແລະ ເກັບຊື້ໝາກອຶ ສິກປີ 2014-2015

- ອີງຕາມ ກົດໝາຍສົ່ງເສີມການລົງທຶນພາຍໃນສະບັບເລກທີ 2/ສພຊ, ລົງວັນທີ 8 ກໍລະກົດ 2009.
- ອີງຕາມ ກົດໝາຍວິສະຫະກິດສະບັບເລກທີ 11/ສພຊ, ລົງວັນທີ 25 ພະຈິກ 2005
- ອີງຕາມ: ແຜນການພັດທະນາເສດຖະກິດ-ສັງຄົມຂອງແຂວງ ແລະເມືອງ 2010-2020

ຕອນແລງ ເວລາ 14 ໂມງ 00 ນາທີ ຂອງວັນທີ 29/12/2014 ຢູ່ທີ່ ບ້ານໂພຄຳ ໄດ້ມີພິທີເຊັນສັນຍາສົ່ງເສີມການປູກ ແລະ ເກັບຊື້ໝາກອຶ ຢູ່ບ້ານ ນ້ຳບັກ-ໂພຄຳ ເມືອງລອງ ແຂວງຫຼວງນ້ຳ ລະຫວ່າງ ຊາວກະສິກອນປູກໝາກອຶ ກັບ ທ່ານ ໝໍ້ ຜູ້ໃຫ້ ການສົ່ງເສີມ (ໂດຍຜ່ານການຍິ່ງຢືນຈາກຂະແໜງການກ່ຽວຂ້ອງຂັ້ນເມືອງ) ເຊິ່ງທັງສອງຝ່າຍໄດ້ປຶກສາຫາລື ແລະ ເປັນເອກະພາບ ຈຶ່ງໄດ້ຕົກລົງສ້າງສັນຍາຮ່ວມກັນເຊິ່ງມີເນື້ອໃນດັ່ງລຸ່ມນີ້:

#### ມາດຕາ 1: ວ່າດ້ວຍບົດສະເໜີ

##### I ຝ່າຍ ກ

ຊື່ ແລະ ນາມສະກຸນ ທ່ານ ຄຳເຫຼັກ ເຊິ່ງເປັນຫົວໜ້າກຸ່ມຜະລິດກຸ່ມທີ 2 ອາຍຸ 42 ປີ ເຮືອນເລກ ທີ່.....ບ້ານ ນ້ຳບັກ ເມືອງລອງ ແຂວງຫຼວງນ້ຳທາ, ເບີໂທລະສັບ.....

##### II ຝ່າຍ ຂ (ຜູ້ສົ່ງເສີມ ແລະ ເກັບຊື້)

ຊື່ ແລະ ນາມສະກຸນ ທ່ານ ໝໍ້ ອາຍຸ 45 ປີ, ອາຊີບ ດ້າຂາຍ ຢູ່ບ້ານ ໂພຄຳ ເມືອງລອງ ແຂວງ ຫຼວງນ້ຳທາ ເບີໂທລະສັບ 020 ..... ເຊິ່ງໄດ້ຮັບໃບອະນຸຍາດສິນຄ້າສົ່ງອອກເລກທີ ...../ອຄ.ນທ ລົງວັນທີ.....

**ມາດຕາ 2: ຂອບເຂດການສົ່ງເສີມ ແລະ ເກັບຊື້**

ຂອບເຂດການສົ່ງເສີມ ແລະ ເກັບຊື້ແມ່ນຢູ່ພາຍໃນບ້ານ ນ້ຳບັກ-ໂພຄຳ ເມືອງລອງ ແຂວງ ຫຼວງນ້ຳທາ ລວມເນື້ອທີ່ທັງໝົດ ແມ່ນ 10 ເຮັກຕາ(ລາຍລະອຽດມີລາຍຊື່ຜູ້ຮັບການສົ່ງເສີມຄັດຕິດທາງຫຼັງ).

**ມາດຕາ 3 : ຮູບແບບການລົງທຶນສົ່ງເສີມ ແລະ ອາຍຸສັນຍາ**

1. ຮູບແບບການລົງທຶນ: ສົ່ງເສີມປະຊາຊົນປູກ ແລະ ເກັບຊື້ຕາມຮູບແບບ 2+3 ຄື:
  - ຜູ້ເກັບຊື້ ຝ່າຍ(ກ) ຮັບຜິດຊອບ: ເຕັກນິກ ວິຊາການ,ທຶນຮອນ ແລະ ຕະຫຼາດຈຳໜ່າຍ.
  - ປະຊາຊົນຮັບຜິດຊອບ: ເນື້ອທີ່ດິນປູກ ແລະ ແຮງງານ
2. ກຳນົດອາຍຸສັນຍາແມ່ນ 6 ເດືອນ (ເລີ່ມແຕ່ ເດືອນ 12/2014 ຫາ ວັນທີ 30/5/2015) ກໍລະນີຝ່າຍ(ກ)ຢາກສືບຕໍ່ໃນປີ ຕໍ່ໄປແມ່ນສາມາດສະເໜີນຳຝ່າຍ (ຂ) ເພື່ອຄົ້ນຄ້ວາພິຈາລະນາ.

**ມາດຕາ 4 ວ່າດ້ວຍສິດ ແລະ ໜ້າທີ່ຂອງຝ່າຍ (ກ)**

- 4.1 ຜູ້ຜະລິດຕ້ອງຮັບຜິດຊອບເນື້ອທີ່ດິນປູກຝັງ,ອຸປະກອນ,ແຮງງານ ແລະ ການບົວລະບັດຮັກສາ(ໂດຍມີຄ່າຈ້າງແຮງງານຕາ ທ້ອງຕະຫຼາດ) ລວມທັງການເກັບກູ້ ເພື່ອສະໜອງຜົນຜະລິດໃຫ້ໄດ້ຕາມມາດຖານ ແລະ ຈຳນວນ 250 ໂຕນ.
- 4.2 ມາດຕະຖານຜົນຜະລິດທີ່ໄດ້ຕິກລົງຊື້-ຂາຍນຳກັນແມ່ນ 1 ກິໂລ ຂຶ້ນໄປ, ຖ້າຫຼຸດ 1 ກິໂລ ແມ່ນບໍ່ເກັບຊື້.
- 4.3 ຕ້ອງຮັບຜິດຊອບການຂົນສົ່ງຜະລິດອອກຈາກນາເພື່ອມາເກັບມ້ຽນໄວ້ບ່ອນແຄມທາງຢາງ.
- 4.4 ໝາກອີທີ່ໄດ້ເກັບກູ້ມາແລ້ວບໍ່ໄດ້ມາດຖານທີ່ຄັດເລືອກອອກ(ເນົາ)ໃຫ້ຜູ້ຜະລິດນຳເອົາໄປຖິ້ມບ່ອນທີ່ໄດ້ກຳນົດໄວ້.
- 4.5 ການເສຍພັນທະ,ຄ່າທຳນຽມ ແລະ ຄ່າບໍລິການອື່ນໆໃຫ້ຂະແໜງການກ່ຽວຂ້ອງແມ່ນມອບໃຫ້ທາງຫົວໜ້າກຸ່ມເປັນຜູ້ ພົວພັນນຳຜູ້ສົ່ງເສີມເພື່ອຊຳລະ.

**ມາດຕາ 5 ວ່າດ້ວຍສິດ ແລະ ພັນທະຂອງຝ່າຍ(ຂ)**

- 5.1 ຜູ້ສົ່ງເສີມ ແລະ ເກັບຊື້ຮັບຜິດຊອບສະໜອງ ປຸຍ,ຜ້າຢາງ,ຢາປາບສັດຕູພືດ,ແນວພັນ.
- 5.2 ຜົນຜະລິດທັງໝົດທີ່ຄາດວ່າຈະເກັບກູ້ໄດ້ 25-30 ໂຕນ/ເຮັກຕາ.
- 5.3 ກ່ອນຈະສົ່ງອອກຕ້ອງສ້າງແຜນການສົ່ງອອກໃຫ້ຫ້ອງການ ອຸດສາຫະກຳ ແລະ ການຄ້າ ເພື່ອຈະສະເໜີໂກຕາການ ສົ່ງອອກນຳພະແນກອຸດສາຫະກຳ ແລະ ການຄ້າແຂວງ.
- 5.4 ບໍ່ວ່າກໍລະນີໃດກໍຕາມຫ້າມເດັດຂາດບໍ່ໃຫ້ສ້າງຄວາມຫຍຸ້ງຍາກ ແລະ ກົດໝ່ວງທາງດ້ານການເກັບຊື້ກັບປະຊາຊົນ
- 5.5 ພາຍຫຼັງໄດ້ເກັບໝາກອີມາຮອດຈຸດຊື້-ຂາຍກຳນົດບໍ່ໃຫ້ກາຍ 10 ວັນ ຜູ້ສົ່ງເສີມຕ້ອງມາເກັບຊື້.
- 5,5 ສັນຍາຕ້ອງໄດ້ຕິດສະແຕມເພື່ອຈິດຜ່ານທະບຽນ ແລະ ເສຍຄ່າທຳນຽມນຳຫ້ອງການການເງິນເມືອງ.
- 5,6 ບໍລິສັດ ຫຼື ຜູ້ສົ່ງເສີມໄດ້ມີເງິນຄ້າປະກັນໄວ້ກັບປະຊາຊົນຈຳນວນ 1,300,000 ຕໍ່ ເຮັກຕາ.

**ມາດຕາ 06 ວ່າດ້ວຍການເກັບຊື້ຜົນຜະລິດ**

- 6.1 ຜົນຜະລິດທີ່ຝ່າຍ(ກ)ຜະລິດອອກມາຕາມທີ່ໄດ້ຕົກລົງກັນ ຝ່າຍ(ຂ)ຕ້ອງໄດ້ເກັບຊື້ໃຫ້ໝົດ ແລະ ມີສິດເກັບຊື້ຜູ້ດຽວ ຫ້າມເດັດຂາດບໍ່ໃຫ້ຝ່າຍ(ກ)ຂາຍຜົນຜະລິດໃຫ້ບຸກຄົນອື່ນໂດຍບໍ່ໄດ້ຮັບອະນຸຍາດຈາກຝ່າຍ(ຂ).
- 6.2 ສະຖານທີ່ຊື້-ຂາຍຜົນຜະລິດແມ່ນບ້ານ ນ້ຳບັກ-ໄພຄຳ.
- 6.3 ກຳນົດລາຄາການເກັບຊື້ : 1 ກິໂລ ຫາ 2 ກິໂລ ແມ່ນ 260 ກີບ/ກິໂລ ;2,1 ກິໂລຂຶ້ນໄປແມ່ນ 650 ກີບ/ກິໂລ
- 6.4 ສຳລັບລາຄາຄິດໄລ່ເພື່ອຈະມອບພັນທະແມ່ນກຳນົດເອົາລາຄາ ຕາມທີ່ໄດ້ເກັບຊື້ ເປັນບ່ອນອີງໃນການຄິດໄລ່
- 6.5 ການຊຳລະເງິນເກັບຊື້ຜົນຜະລິດຂອງປະຊາຊົນຕ້ອງຈ່າຍສົດ.
- 6.6 ກ່ອນຈະເຄື່ອນຍ້າຍສິນຄ້າທຸກໆຄັ້ງຕ້ອງແຈ້ງໃຫ້ຂະແໜງການກ່ຽວຂ້ອງເພື່ອປະກອບເອກະສານ ແລະ ເສຍພັນທະຕາມລະບຽບການ(ໃນໂມງລັດຖະການ)ແລ້ວຈຶ່ງອະນຸຍາດເຄື່ອນຍ້າຍ.
- 6.9 ພາຍຫຼັງໄດ້ເກັບຊື້ສຳເລັດແລ້ວໃຫ້ສະຫຼຸບຖອດຖອນບົດຮຽນ ຈຸດດີ,ຈຸດອ່ອນ ເພື່ອເປັນການປັບປຸງໃນລະດູຕໍ່ໄປ.

**ມາດຕາ 07 ການແກ້ໄຂຂໍ້ຂັດແຍ້ງ**

- 7.1 ຕະຫຼອດໄລຍະສັນຍາ ແລະ ການດຳເນີນກິດຈະກຳ ຖ້າມີຂໍ້ຂັດແຍ້ງເກີດຂຶ້ນຕໍ່ຝ່າຍໃດຝ່າຍໜຶ່ງແມ່ນທັງສອງຝ່າຍພ້ອມກັນພິຈາລະນາແກ້ໄຂບົນພື້ນຖານຄວາມເປັນເອກະພາບ ແລະ ຄວາມເຂົ້າໃຈເຊິ່ງກັນ ແລະ ກັນ ດ້ວຍສັນຕິ ກໍລະນີຂໍ້ຂັດແຍ້ງທີ່ເກີດຂຶ້ນນັ້ນເຊິ່ງທັງສອງຝ່າຍບໍ່ສາມາດແກ້ໄຂໄດ້ໃຫ້ສະເໝີຕໍ່ຂະແໜງການກ່ຽວຂ້ອງທີ່ທ່ານໄດ້ຮັບອະນຸຍາດ ຫຼື ຄະນະຄຸ້ມຄອງຂັ້ນເມືອງ ແລະ ແຂວງຕາມລຳດັບເພື່ອແກ້ໄຂຂໍ້ຂັດແຍ້ງຕາມທາງທີ່ເໝາະສົມ.

**ມາດຕາ 8 ວ່າດ້ວຍການລະເມີດ ແລະ ການຍົກເລີກສັນຍາ**

- 8.1 ຖ້າຝ່າຍໃດຝ່າຍໜຶ່ງບໍ່ປະຕິບັດຕາມເນື້ອໃນສັນຍາສະບັບນີ້ຈະຖືວ່າເປັນການລະເມີດສັນຍາ,ຝ່າຍທີ່ລະເມີດສັນຍາຕ້ອງມີຄວາມຮັບຜິດຊອບຕໍ່ໜ້າກົດໝາຍ ຂອງ ສ ປ ປ ລາວ.
- 8.2 ບໍລິສັດ ຫຼື ບຸກຄົນທີ່ໄດ້ລັກລອບຂາຍໃຫ້ບໍລິສັດອື່ນ ຫຼື ມີບໍລິສັດມາ ລັກລອບເກັບຊື້ສິ່ງອອກແມ່ນຈະໄດ້ປະຕິບັດຕາມລະບຽບກົດໝາຍ.
- 8.3 ກໍລະນີຝ່າຍ(ຂ) ບໍ່ປະຕິບັດຕາມສັນຍາ ຝ່າຍ(ຂ) ຕ້ອງໄດ້ທົດແທນຄ່າແຮງງານຂອງປະຊາຊົນຕາມຈຳນວນມູນຄ່າການເກັບຊື້.
- 8.4 ຄວາມລົ້ມເລວໃດກໍ່ຕາມທີ່ເກີດຂຶ້ນກັບ ຝ່າຍ (ກ) ຫຼື ຝ່າຍ( ຂ) ໃນການປະຕິບັດໂຄງການພາຍໃຕ້ສັນຍາສະບັບນີ້ຈະບໍ່ຖືວ່າ ເປັນການລະເມີດສັນຍາ ຫຼື ການຍົກຜອງ,ຖ້າຄວາມລົ້ມເລວຫາກເກີດຈາກ ເຫດສຸວິໄສເຊິ່ງຝ່າຍທີ່ໄດ້ຮັບ ຜົນກະທົບໃຊ້ຄວາມພະຍາຍາມຢ່າງສຸດຄວາມສາມາດເພື່ອແກ້ໄຂ ບັນຫາດັ່ງກ່າວແລ້ວ;ເຫດສຸວິໄສໝາຍເຖິງເຫດການໃດໜຶ່ງທີ່ບໍ່ຄາດຄິດເຊັ່ນ : ແຜ່ນດິນໄຫວ, ນ້ຳຖ້ວມ, ລົມພະຍຸ, ອາກາດໜາວ,ພະຍາດ

ລະບາດ, ນໍ້າໜອກຊັນ, ສັດຕູພຶດທໍາລາຍຮ້າຍແຮງ, ສິງຄາມ, ໄຟໄໝ້ ແລະ ອື່ນໆ ດັ່ງນີ້ເປັນຕົ້ນ ຈະບໍ່ໄດ້ໂຍນຄວາມ  
ຜິດຊອບໃຫ້ແກ່ຝ່າຍໃດຝ່າຍໜຶ່ງ ແລະ ຈະບໍ່ລົບລ້າງສັນຍາສະບັບນີ້ໄດ້.

8.5 ທຸກການເຄື່ອນໄຫວທີ່ເປັນການລະເມີດລະບຽບກົດໝາຍ ແລະ ລະເມີດສັນຍາສະບັບນີ້ທີ່ຈະເປັນການແຕະຕ້ອງເຖິ  
ຜົນປະໂຫຍດຂອງຊາດຂອງປະຊາຊົນລາວລ້ວນແຕ່ເປັນການຜ່າຜົນ, ທາງອານາດການປົກຄອງເມືອງມີສິດຍົກເລີກ  
ໂຄງການດັ່ງກ່າວໄດ້.

8.6 ກໍານົດສັນຍາສະບັບນີ້ຈະສິ້ນສຸດໃນເດືອນ 30/5/2015 ເມື່ອໝົດອາຍຸສັນຍາສະບັບນີ້ກໍຖືວ່າສິ້ນສຸດສັນຍາ. ຝ່າຍ(ຂ  
ມີສິດສະເໜີຂໍຕໍ່ເວລາ ແລະ ສືບຕໍ່ສັນຍາສະບັບນີ້ໄດ້ ກໍຕໍ່ເມື່ອໄດ້ຮັບອະນຸຍາດຈາກຝ່າຍ(ກ).

**ມາດຕາ 9 ວ່າດ້ວຍຜົນສັກສິດ**

9.1 ສັນຍາສະບັບນີ້ມີ 9 ມາດຕາ, ມີ 4 ໜ້າເຈ້ຍ A4 ແລະ ສ້າງຂຶ້ນເປັນ 3 ສະບັບຕົ້ນ(ເປັນພາສາລາວ), ຄູ່ສັນຍາຮັກສາ  
ຝ່າຍລະສະບັບ ແລະ ສໍາເນົາເພື່ອອ້າງອີງໄດ້ 1 ສະບັບ.

9.2 ສັນຍາສະບັບນີ້ມີຜົນສັກສິດນັບແຕ່ມີທັງສອງຝ່າຍໄດ້ລົງລາຍເຊັນ ແລະ ກາປະທັບເປັນຕົ້ນໄປ.

ທີ່ ບ້ານ ໂພຄໍາ, ວັນທີ 19/12/2014

ທີ່ ບ້ານ ໂພຄໍາ, ວັນທີ 19/12/2014

ຝ່າຍ ກ

ຝ່າຍ ຂ

ຫົວໜ້າກຸ່ມຜະລິດ

ຫົວໜ້າບໍລິສັດ ຫຼື ຜູ້ສົ່ງເສີມ

ນາຍບ້ານ

ຫົວໜ້າກຸ່ມຜູ້ນໍາໃຊ້ນໍ້າ



81 83 210

ຍັງຢືນຜ່ານ

ຫົວໜ້າຫ້ອງການອຸດສາຫະກຳ ແລະ ການຄ້າເມືອງ

5. ຫົວໜ້າຫ້ອງການກະສິກໍາ-ປ່າໄມ້ ເມື



ຄໍາສິງ ເພັດຕະວົງ  
Khamsing PHETTAVONG



ຈັກກະວານ ແກ້ວບຸນພັນ  
Chakkavan KEOBOUNPHAN



ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບວັທະນະຖາວອນ

ລາຍຊື່ປຸກໝາກອີໂຄຼການນໍ້າບັກ ສົກ 2014-2015

*	ກຸ່ມ III	ສໍາມະຊິກໃນຄ/ຄ	ຍິງ	ເນື້ອທີ	ລາຍເຊັນຜົວ,ເມຍ	
					ຜົວ	ເມຍ
1	ທ.ຄໍາເຫຼັກ ຫົວໜ້າກຸ່ມ	5	2	1,8	<i>[Signature]</i>	ບ. ຕາວມ
2	ທ.ສິນ	4	3	0,4	ທ. ສິນ	ບ. ສຸມ
3	ທ.ກາກ	4	2	0,8	ທ. ກາກ	ບ. ວິໄນ
4	ທ.ນິງສັກ	3	1	0,9	ທ. ນິງສັກ	ບ. ເສີນ
5	ທ.ຂິງ	2	1	0,5	ທ. ຂິງ	ບ. ເສີນ
6	ທ.ປັນ	5	2	0,3	ທ. ປັນ	ບ. ວິໄນ
7	ທ.ອອ້ມ	4	3	0,4	ທ. ອອ້ມ	ບ. ຕາວມ
8	ທ.ຊອນ	5	3	0,5	ທ. ຊອນ	ບ. ແຟ້ງ
9	ທ.ເພັງ	4	1	0,5	ທ. ເພັງ	ບ. ກາວ
10	ທ້າວຮຽງ	5	4	0,3	ທ. ຮຽງ	ບ. ດໍາ
11	ທ.ຈິດ	3	2	0,4	ທ. ຈິດ	ບ. ສຸມ
12	ທ.ຂໍ້	3	2	0,5	ທ. ຂໍ້	ບ. ແຟ້ງ
13	ທ.ເຈື້ອ	6	4	0,9	ທ. ເຈື້ອ	ບ. ວິໄນ
14	ທ.ມອກ	7	3	0,5	ທ. ມອກ	ບ. ຕາວມ
15	ທ.ອຽນ	7	3	0,6	ທ. ອຽນ	ບ. ວິໄນ
16	ທ.ຫົວສາມນ້ອຍ	4	3	0,5	ທ. ຫົວສາມນ້ອຍ	ບ. ວິໄນ
17	ໄມ້ເພັງ	4	2	0,5	ໄມ້ເພັງ	ບ. ແຟ້ງ
18	ທ.ຄໍາພອນ	4	3	0,5	ທ. ຄໍາພອນ	ບ. ວິໄນ
19	ທ.ແອ	8	3	0,5	ທ. ແອ	ບ. ຕາວມ
20	ໄມ້ອຸ່ນ	7	4	0,3	ໄມ້ອຸ່ນ	ບ. ວິໄນ
21	ທ.ປົວເງິນ	4	2	0,4	ທ. ປົວເງິນ	ບ. ແຟ້ງ
	ລວມ	93	51	10		

ວັນທີ 27/11/2014

ນາຍບ້ານ

ປະທານກຸ່ມນໍ້າໃຊ້ນໍ້າ

ຫົວໜ້າກຸ່ມຜະລິດ

*[Signature]*

*[Signature]*

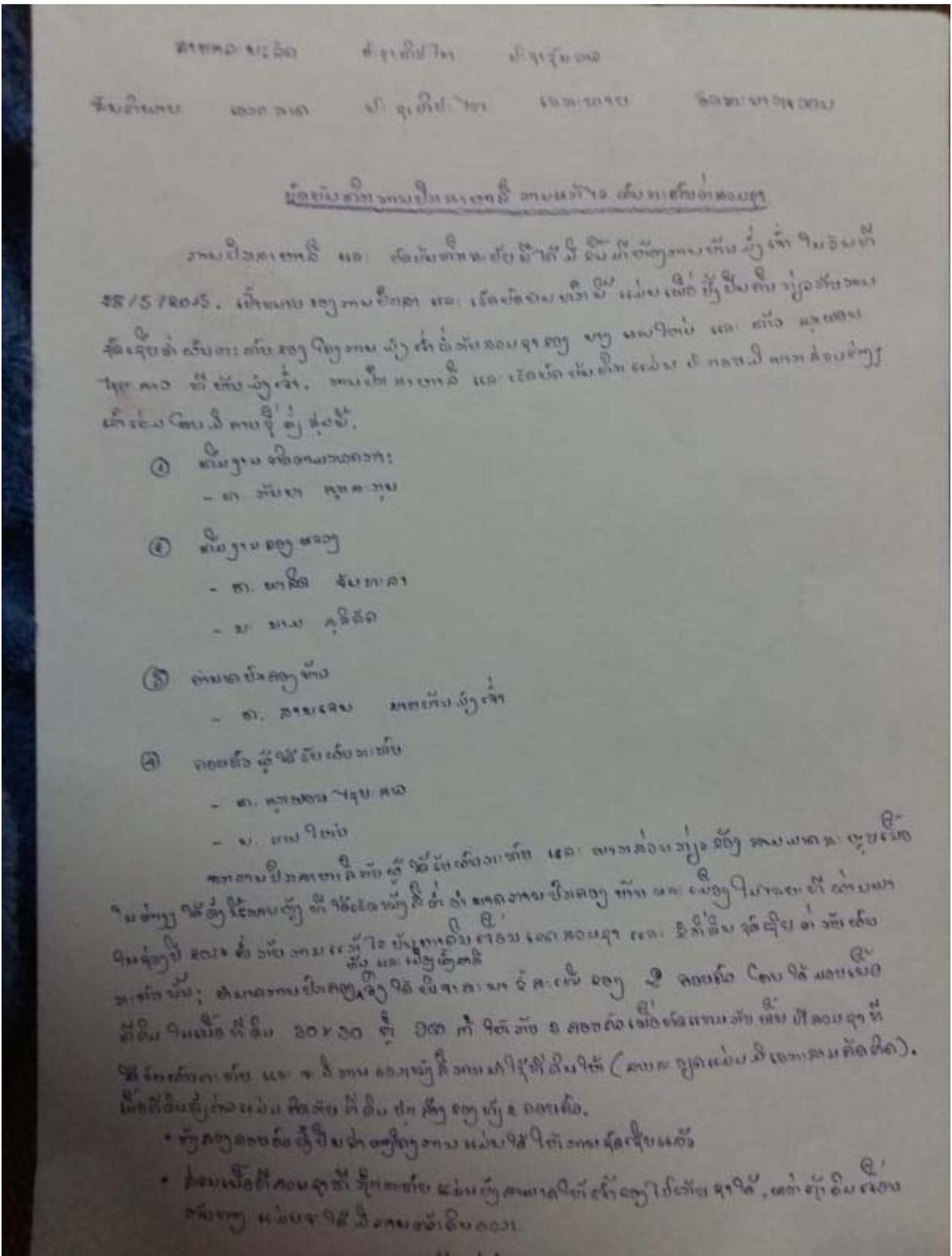


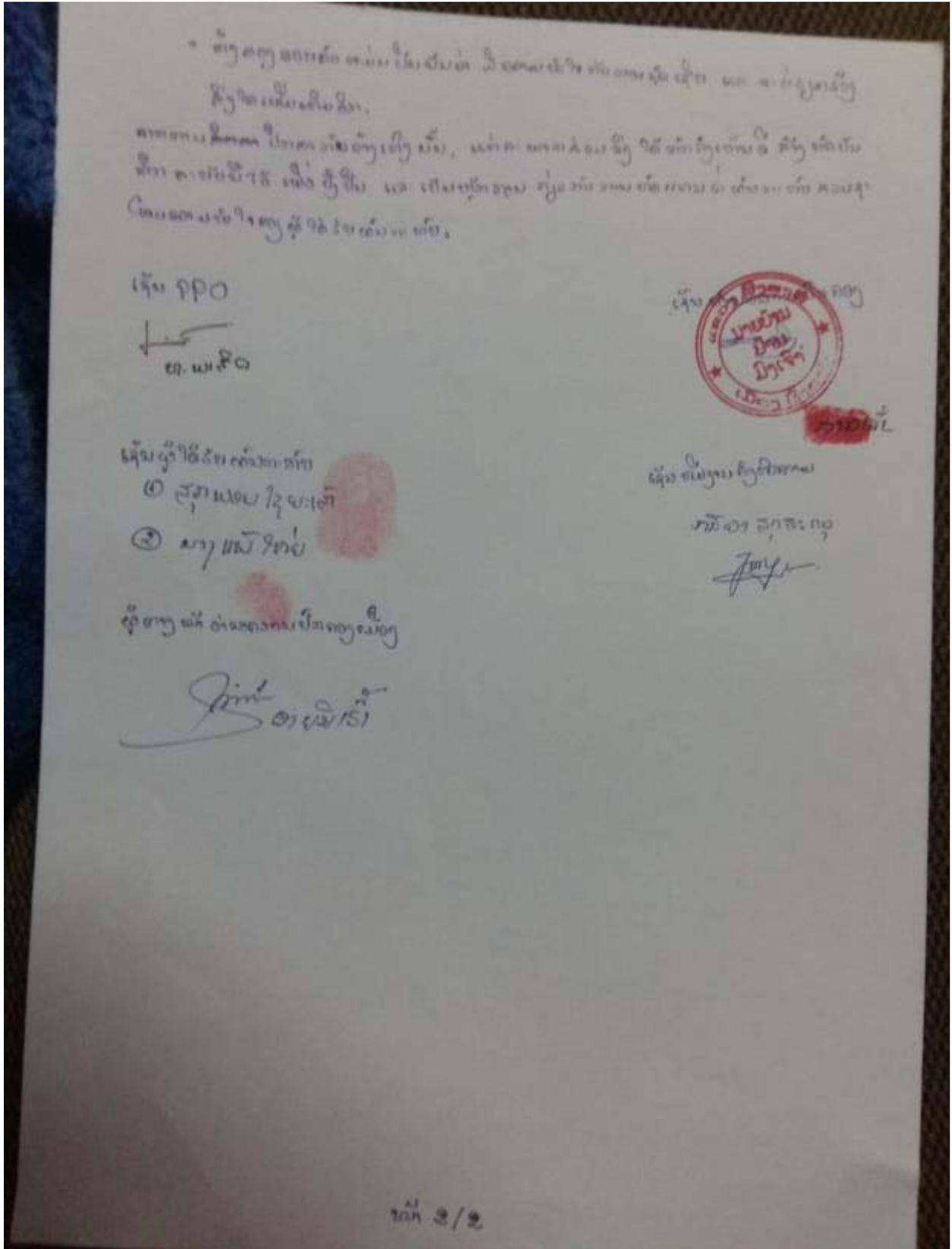
ຄໍາແປງ ຫິດຈອມຄໍາ

*[Signature]*



### Annex 6: Meeting Note of compensation for 2 AHs at Mongchao villages





## Meeting Note (Translated)

### Compensation for affected tea plantation land at Mongchao Village

The meeting note was prepared on 28 May 2015 at meeting room of Mongchao village. The purpose of the meeting is to confirm the compensation for Mr. Soukphone Sayasao and Mrs. Paeyai for the tea plantation land impact from the landslide under the Mongchao-Kormoen Road construction subproject. The meeting was involved by villagers, village, district and provincial authorities as following:

Participants include:

- I. Safeguard Monitoring Team
  1. Mr. Kanya Souksakoun
- II. PPO
  1. Mr. Phasith Chanthala; representative from PPO
  2. Ms. Nam Soulilath; PONRE
- III. DCO
  1. Mr. Khamyinhao
- IV. Village authorities and villagers
- V.
  1. Mr. Sanchen, Village chief of Mongchao
  2. Mr. Soukphone Sayasao, Affected villager
  3. Mrs. Paeyai; affected villager

The results of the meeting with affected villagers and authorities. It can be summarized as below:

- The complaints had been given to the village and district authorities as well as PPO in 2014 regarding the occurrence of landslide to the tea plantation land and the affected villagers had request for the compensation. The compensation could be land by land instead of cash compensation.
- With such request, the PPO and DCO in coordination with village authority had considered the request and a 30\*30 m (900m<sup>2</sup>) land parcel was allocated and given to 2 affected villagers. The given land parcel is located next to affected villagers. This is to compensate for the tea plantation land affected. The details of the land allocation and land use document was attached (agreement of district governor).
- Both affected villagers confirmed and accepted that they have been compensated by authorities.
- It was agreed that the affected villagers can continue to collect the tea within the affected area (tea plantation) as long as no further landslide occurred.
- Both affected villagers confirmed that they are satisfied and happy with the compensation and no more request or complaints to the authorities.

With the above information, the parties signed this meeting note for evidence and proof of the compensation with satisfaction of the affected villagers.

PPO

village authority of Mongchao

*Mr. Phasith*

*Mr. Sanchen; village chief*

Affected House

Safeguard Monitoring Team

*Mr. Soukphone Sayasao, Affected villager*  
*Mrs. Paeyai; affected villager*

*Mr. Kanya Souksakoun*

DCO

*Mr. Khamyinhao*

Handwritten notes in the top left corner, including a signature and some illegible text.



ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນາຖາວອນ

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ເມືອງ ຜົງສາລີ  
ເຈົ້າເມືອງ

ເລກທີ 102 / ຈມ  
ຜົງສາລີວັນທີ 10 / 2 / 2015

### ຂໍ້ຕົກລົງ ຂອງເຈົ້າເມືອງ

- ວ່າດ້ວຍການທົດແທນດິນຄືນໃຫ້ຄອບຄົວທີ່ຖືກຜົນກະທົບຈາກໂຄງການກໍ່ສ້າງເສັ້ນທາງແຕ່ບ້ານ ມິ້ງເຈົ້າ-ບ້ານ ລຸງຈິງ
- ອີງຕາມ ກົດໝາຍວ່າດ້ວຍການປົກປັກຮັກສາສິ່ງແວດລ້ອມສະບັບເລກທີ 02/99/ພຊ ລົງວັນທີ 3 / 8 / 1999
- ອີງຕາມ ກົດໝາຍທີ່ດິນສະບັບເລກທີ 04/ສພຊ ລົງວັນທີ 12 ຕຸລາ 2003
- ອີງຕາມ ດໍາລັດວ່າດ້ວຍການທົດແທນເອກະສານຈາກໂຄງການພັດທະນາສະບັບເລກທີ 192/ນຍ ລົງວັນທີ 7 / 7 / 2005

### ເຈົ້າເມືອງຕົກລົງ

- ມາດຕາ 01 ຕົກລົງມອບດິນກະສິກໍາຈໍານວນ 1 ຕອນ ໃຫ້ແກ່ ທ້າວ ພອນສຸກ ແລະ ນາງ ແພ່ໃຫ້ຍ ປຸ່ເຂດປ່າສະຫງວນ ບ້ານ ມິ້ງເຈົ້າ ທີ່ມີເນື້ອທີ 30 ແມັດ X 30 ແມັດ ເທົ່າກັບ 900 ຕາແມັດ ເພື່ອເປັນການທົດແທນຄືນບັນດາຕອນດິນທີ່ຖືກຜົນກະທົບ ຈາກໂຄງການກໍ່ສ້າງເສັ້ນທາງບ້ານ ມິ້ງເຈົ້າ-ບ້ານ ລຸງຈິງ ສະນັ້ນຄະນະຊີ້ນໍາໂຄງການຂັ້ນເມືອງ ແລະ ອົງການປົກຄອງບ້ານ ປົກສາຫາລີເປັນເອກະພາບ ແລະ ມອບໃຫ້ສອງຄອບຄົວແບ່ງກັນ ແລະ ປັນດິນກໍາມະສິດຂອງສອງຄອບຄົວ.
- ມາດຕາ 02 ມອບໃຫ້ບັນດາຄອບຄົວທີ່ຖືກຜົນກະທົບທົດແທນດິນຄືນ ແລະ ພາກສ່ວນທີ່ກ່ຽວຂ້ອງຂັ້ນເມືອງສືບຕໍ່ວັດແທກ ແລະ ປະກອບເອກະສານຕາມລະບຽບຫຼັກການ.
- ມາດຕາ 03 ໃຫ້ອົງການປົກຄອງບ້ານພໍ່ແມ່ປະຊາຊົນພາຍໃນບ້ານພາກສ່ວນທີ່ກ່ຽວຂ້ອງຂັ້ນເມືອງຈົງຮັບຮູ້ ແລະ ພ້ອມກັນຈັດຕັ້ງປະຕິບັດປ່ຽນແປງ.
- ມາດຕາ 04 ຂໍ້ຕົກລົງສະບັບນີ້ມີຜົນສັກສິດນັບແຕ່ວັນລົງລາຍເຊັນເປັນຕົ້ນໄປ.

5 ເຈົ້າເມືອງ-ເມືອງຜົງສາລີ  
  
 ບຸນທອງ ຕິງສິມເຮືອງ

Lao People's Democratic Republic  
Peace, independence, democracy, unity and prosperity

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Phongsaly District

District Governor

No....102/ DG

Phongsaly date 10 Feb. 2015

## Agreement of District Governor

Concerning the compensation (Land to Land) for the affected HHs under Mongchao – Komaene Road construction.

- Reference to the Environment law No. 02/99/NA issued date 3 August 1999
- Reference to Land Law No.04/NA, issued date 12 October 2003
- Reference to Prime Minister Degree for Land Acquisition and Resettlement No. 192/PM issued date 7/7/2005

District Governor Agreed.

1. Agreed to give one piece of Agriculture Land for Mr. Phonesouk and Ms. Phay Yai located at Mongchao Forest Conservation Area, with a total area of 30m x 30m = 900m<sup>2</sup> for compensation as Land to Land for the affected land by Mongchao – Komaene Road construction.
2. The affected HH and Office concerned parties at district and village to continue to measure this land and to prepare concerned document of Land according to the Land Law.
3. Village Authority and ordinary people of the village concerned and other offices concerned at district level are acknowledge and strictly implementation.
4. This agreement will enter into force from the date of signature.

Phongsaly District Governor (Vice Governor)

Mr. Bounthong Theunsomheaug.

### Annex 7: Land document for AH at Komaen village

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ  
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນາຖາວອນ

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ແຂວງຜົ້ງສາລີ  
ຫ້ອງການຊັບພະຍາກອນທຳມະຊາດ  
ແລະ ສິ່ງແວດລ້ອມເມືອງຜົ້ງສາລີ  
ບ້ານ.....*ບ້ານຈີ່*.....

ເລກທີ.....*925*.....  
ລົງວັນທີ.....*29/15/12*.....

### ໃບຢັ້ງຢືນທີ່ດິນ

(ໃຫ້ແຈ້ງແຕ່ລະຕອນດິນຕາມແຕ່ລະປະເພດດິນ ປະຕິບັດຕາມລັດຖະບັນຍັດປະທານປະເທດວ່າດ້ວຍຄຳທຳນຽມ  
ການນຳໃຊ້ທີ່ດິນເລກທີ 01 ສ ປ ປ ລາວ ລົງວັນທີ 08/05/2007)

- ຊື່ ແລະ ນາມສະກຸນຜູ້ຄອບຄອງທີ່ດິນ(ເຈົ້າຂອງ).....*ທ້າຍ ພົມ ພົມ*.....  
ພ້ອມດ້ວຍ(ຜົວ ຫຼື ເມຍ).....*ທ້າຍ ພົມ*.....
- ເຂດທີ່ຕັ້ງຂອງດິນ.....*ບ້ານຈີ່*.....ຖະໜົນ.....*ທ້າຍ ພົມ ພົມ*.....ເຮືອນເລກທີ.....  
ບ້ານ.....*ບ້ານຈີ່*.....ເມືອງ.....*ເມືອງຜົ້ງສາລີ*.....ແຂວງ.....*ແຂວງຜົ້ງສາລີ*.....
- ເອກະສານຢັ້ງຢືນກ່ຽວກັບດິນ ຫຼື ວິທີການໄດ້ມາ ຫຼື ໃບແຈ້ງທີ່ດິນເກົ່າ.  
ເນື້ອທີ່ດິນ.....*252.50*.....ຕາແມັດ.
- ເຂດແດນດິນທີ່ຕິດໃນແຕ່ລະດ້ານ:
  - ທິດເໜືອຕິດກັບດິນ.....*ທ້າຍ ພົມ ພົມ*.....ມີໄລຍະ.....*25*.....ແມັດ
  - ທິດໃຕ້ຕິດກັບ.....*ທ້າຍ ພົມ ພົມ*.....ມີໄລຍະ.....*25*.....ແມັດ
  - ທິດຕາເວັນອອກຕິດກັບ.....*ທ້າຍ ພົມ ພົມ*.....ມີໄລຍະ.....*11*.....ແມັດ
  - ທິດຕາເວັນຕົກຕິດກັບ.....*ທ້າຍ ພົມ ພົມ*.....ມີໄລຍະ.....*10*.....ແມັດ
- ປະເພດການນຳໃຊ້ທີ່ດິນ.....*ດິນປ່າ*.....ເນື້ອທີ່ດິນ.....*252.50*.....ແມັດ

ລາຍເຊັນຜູ້ຄອບຄອງນຳໃຊ້ທີ່ດິນ

ຄະນະກວດກາ ແລະ ວັດແທກ	ນາຍບ້ານ
1. <i>ທ້າຍ ພົມ ພົມ</i>	
2. <i>ທ້າຍ ພົມ ພົມ</i>	
3. <i>ທ້າຍ ພົມ ພົມ</i> (ເມຍ)	
4. <i>ທ້າຍ ພົມ ພົມ</i> (ສອງທ້າຍ)	

*ທ້າຍ ພົມ ພົມ*

**ໄດ້ຍື່ນທະບຽນແລ້ວ**

ອອກໃຫ້ແກ່... **ປ. ມະນີ ກວັດ**

ຮຸ້ນເກີດ... **ປີ 1975** ອາຍຸ... **39** ອາໄສ... **1/9**

ບັນເທົາ... **ປີ 1975** ສາວ... **ເດືອນລາສີ** ເມືອງ... **ໄຊຊີນ**

ແຂວງ... **ໄຊຊີນ** ນີ້... **ຊື່** ຊື່... **ຊື່**

ສາມີ ຫຼື ສິນລະຍາ... **2**

ທີ່ຕັ້ງຂອງບັນ: ຖະໜົນ... **ວ. ກຸງ** ຫ່ວຍ... **ເດືອນລາສີ** ບ້ານ... **ປາກ** ເມືອງ... **ໄຊຊີນ** ແຂວງ... **ໄຊຊີນ**

ເນື້ອທີ່ຂອງບັນ... **252.50** ຕາລາດ

ມາດຕາຂ່ວນ... **1/300 ຕາ** ແບບທີ່ໃນໃບທີ່... **ເວລາທີ່**

**ແຜນທີ່ດິນ**

ອອກໃຫ້ທີ່.....

ຫົວໜ້າພິພິດສາກຸມສັນຊະນະບາດສະຫຼາດ

ແລະ ສິນລະຍາເມືອງ

**ໄມ້ແຫງ ຫຳມະກັດ**

ອິນຫົວ... **5** ມີ. **2014**

ສະໂຫງນແກ້ມແຜນທີ່

*[Signature]*

ວັນທີ.../.../...



