



ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAME WORK (ESMF)



LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY



The Poverty Reduction Fund III

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

April 2011
Revised January 2016

TABLE OF CONTENTS

| | |
|---|-----------|
| | 1 |
| SECTION I: Poverty Reduction Fund III (PRFIII) | 1 |
| Introduction | 1 |
| SECTION II: POLICY AND REGULATIONS | 2 |
| World Bank’s safeguard policy on environmental assessment (OP 4.01) | 2 |
| World Bank’s safeguard policy on Natural Habitats (OP 4.04)..... | 3 |
| World Bank’s safeguard policy on Safety of Dams (OP 4.37) | 3 |
| World Bank’s safeguard policy on Involuntary Resettlement (OP 4.12)..... | 4 |
| World Bank’s safeguard policy on Indigenous People (OP 4.10) | 4 |
| World Bank’s safeguard policy on Projects on International Waterways (OP 7.50)..... | 5 |
| Government regulation on EIA | 5 |
| Government’s Policy, Regulations, and Guidelines on land acquisition and resettlement.... | 6 |
| Government’s Policy and Regulations on ethnic groups | 6 |
| Project Implementation Management | 7 |
| SECTION III: IMPLEMENTATION EXPERIENCES OF PRFII..... | 10 |
| Budget | 23 |
| | |
| Annex 1: The “Non eligibility list” | 23 |
| Annex 2: Integration of Safeguard Measures into PRF Process..... | 27 |
| Annex 3: Subproject Proposal and Monitoring Forms | 30 |
| Annex 5: Good Engineering Practices and Some Mitigation Measures | 47 |
| Annex 6: Lao PDR Decree 112on Environmental Impact Assessment | 55 |
| Annex 7: Construction of weirs | 77 |
| Annex 8: Pest Management Plan | 79 |

LIST OF ACRONYMS

| | |
|------------------|--|
| CD | Community Development |
| CDD | Community Driven Development |
| CRPF | Compensation and Resettlement Planning Framework |
| DSPPPO | District sub-projects Proposal Outline |
| DRM | Disaster Risk Management |
| ECOP | Environmental Code of Practices |
| EG | Ethnic Group |
| EGDP | Ethnic Group Development Plan |
| EGDF | Ethnic Group Development Framework |
| EGPF | Ethnic Groups Policy Framework |
| EIA | Environmental Impact Assessment |
| EMP | Environment Management Plan |
| ESMF | Environmental and Social Management Framework |
| EU | Engineering Unit |
| FRALA | Framework for Resettlement and Acquisition of Land and Assets |
| FRM | Feedback and Resolution Mechanism |
| FRC | Feedback and Resolution Committee |
| IEC | Information, Education, Communication |
| IEE | Initial Evaluation Examination |
| ISPPF | Infrastructure Sub-Project Proposal Form |
| JSDF | Japanese Social Development Fund |
| KSPPO | Kumban Sub-project Proposal Outline |
| LA | Land Acquisition |
| LARAP | Land Acquisition/Resettlement Action Plan |
| LAR/RR | Land Acquisition Report or Resettlement Report |
| M&E | Monitoring and Evaluation |
| MIS | Management Information System |
| MRC | Mekong River Commission |
| NTFP | Non Timber Forest Product |
| OAA _s | Other Aquatic Animals |
| O&M | Operations and Maintenance |
| OP | Operational Policy (of the World Bank) |
| POM | Project Operations Manual |
| PAP | Person Affected by Project |
| PDO | Project Development Objective |
| PMO | Prime Minister Office |
| PMP | Pest Management Plan |
| PMT | Project Management Team (PRF central office) |
| PRF | Poverty Reduction Fund |
| PRF AF | Poverty Reduction Fund Additional Financing |
| PRF I | Poverty Reduction Fund Phase I |
| PRF II | Poverty Reduction Fund Phase IIRAP Resettlement Action Plan |
| SESG | Social and Environmental Safeguards Guidelines |
| SPPF | Sub-project Proposal Form |
| TSPPF | Training Sub-Project Proposal Form |
| UXO | Unexploded Ordinances |
| VNPA | Village Need Priority Assessment |
| WB | World Bank |
| WREA | Water Resources and Environment Administration |

SECTION I: Poverty Reduction Fund III (PRFIII)

Introduction

The PRF III project will build on the successful experience of the PRF II project, and aims to further improve rural poor's access to services, building on a number of key lessons from PRF II described above.

1. Project Development Objective(s): The PDO of the proposed PRF III is to help improve access to basic services for the Project's targeted poor communities.
2. Project Description.

The proposed PRF III project will build on the bottom-up processes strengthened and the institutional platform laid out under the PRF II project and seek to leverage them to further improve the rural poor's access to infrastructure services and their livelihood conditions. The PRF III would be implemented in the same ten provinces where the PRF II is implemented. The project consists of four components with the budget provided, summarized below, and will be implemented over a three years project implementation period.

Component 1 – Community Development Sub-Grants

Bottom up local development planning. This component would continue to provide technical and logistical support to eligible villages to develop the Village Development Plan (VDP) based on the participatory planning processes. The VDP would be developed on a five year rolling basis, and consolidated into the Kumban Development Plan (KDP) by elected village representatives at the Kumban level. Kumban Facilitators (KBF) will continue to play a leading role in the village planning processes, under the support of the PRF's district community development specialist. The Deepen CDD (DCDD) approach successfully piloted under the PRF II would continue to roll out to the entire districts during the PRF III implementation.

Community sub-grants. Each target Kumban would continue to receive a three-year budget allocation upfront to finance eligible sub-projects prioritized in the KDP. On average, each Kumban would receive US\$40,000 per year and US\$120,000 over three years. As under the PRF II, subprojects would be financed and implemented on an annual basis, selected at the Kumban level based on the KDP by elected village representatives. Activities to be financed under the sub-grants would be open except for items included in the project's negative list. The sub-grant ceiling of US\$60,000 will continue to be used. PRF district staff and district officials would continue to provide technical guidance to help Kumbans identify subprojects that will generate broader benefit at the Kumban level, using the Kumban resource map. Under the PRF III, maintenance of existing infrastructure will be promoted as much as new construction or improvement. The bi-annual follow-up visit started under the PRF II would advise villagers of mid/ long term benefits of addressing critical maintenance backlog of village infrastructure. Maintenance activities would be financed under the same sub-grants as new construction or improvements. The micro-enterprise approach would be piloted to support the maintenance of tertiary infrastructure in particular rural roads, which would be financed through community sub-grants.

Component 2– Local and Community Development Capacity-Building and Learning

This component would continue to develop the capacity of villagers and local government officials to plan and manage local development processes in partnership. Specifically, this component would finance training of villagers, PRF staff and relevant government officials, goods, consultant services and incremental operating costs.

At the village level, this component would finance the capacity development of village leaders and KBF in participatory planning processes and the logistical cost associated with their participation in district level planning and monitoring processes. The cost of developing their technical, fiduciary and safeguard capacity to implement, supervise and maintain infrastructure subprojects in line with agreed procedures, would also be financed.

At the district and provincial level, this component would continue to develop the capacity of relevant government officials to support pro-poor local and community development processes. The technical and logistical support to help district authorities develop and update the District Development Plan (DDP) based on the PRF facilitated KDP, using the existing District Coordination Committee and with the participation of Kumban representatives, would be financed under the component.

At the central level, this component would finance the cost associated with strategic capacity building of the PRF staff and organizing and participating in workshops and other relevant capacity development events. Costs associated with coordination with various sector ministries and Development Partners supporting rural development in Lao PDR would also be financed under the component. Project monitoring, reporting and evaluation activities, and thematic studies would also be financed under this component.

Component 3– Project Management

This component would finance the costs of implementing PRF III activities. It would include remuneration of national, provincial and district PRF staff; associated equipment and operating costs; accounting, procurement, financial management, internal controls, auditing, and other specialized areas.

Component 4 – Nutrition Enhancing Livelihood Development

This component would continue to strengthen the Self-Help Groups (SHGs) in 150 villages through the provision of seed funds to: (i) start or further develop eligible pro-nutrition livelihood activities such as the production of small livestock (e.g. poultry, fish and frogs) mostly for own consumption; (ii) increase their knowledge in livelihood activities including financial literacy and production cycles, and (iii) monitor and evaluate project activities. The component would also support the nutrition education of SHG members, however, it would not support the Village Nutrition Center (VNC) or provide seed grant for the supplementary meals as is done under the PRF II.

SECTION II: POLICY AND REGULATIONS

World Bank’s safeguard policy on environmental assessment (OP 4.01)

OP 4.01 (environmental assessment) for Category “B” project requires a submission of an environmental management plan (EMP) designed to mitigate potential negative impacts of the

project. Review of the safeguard issues and implementation experience from the PRFII suggests that the required mitigation measures described in the ESMF appears adequate, however, more detailed clarification should be made to facilitate simple application at local level and this is discussed in more details below.

World Bank's safeguard policy on Natural Habitats (OP 4.04)

It is expected that some of the communities who benefit from the PRFIII live inside national protected areas. Minor disturbance and site specific impact may occur during the implementation and operation of subprojects, however, the impact is expected to be minor and site specific and it can be mitigated through the application of ECOP included in this ESMF. The ESMF includes screening procedure to (i) determine whether the proposed facilities are in a critical or non-critical natural habitat and (ii) avoid any significant conversion or degradation of any critical natural habitat.

World Bank's safeguard policy on Pest Management (OP 4.09)

- (i) The PRFIII will not promote the use or finance procurement of pesticides, insecticides and herbicides and other dangerous chemicals exceeding the amount required to treat efficiently the infected area. The PRFIII would continue to promote organic farming under the livelihood activities. However, livelihood activities and rehabilitation or construction of gravity based irrigation system might lead to the future use of pesticides or present pest management practices. The potential use of pesticide will be assessed during each subproject screening. The simple PMP includes criteria to ensure that the pesticides used have negligible or minimal impact on environment and are listed as allowed to be used in country in line with the World Health Organization.

World Bank's safeguard policy on Forestry (OP 4.36)

This policy is triggered because some villages to be supported under PRF III are within classified forests and the implementation of subprojects in such villages may have negative impacts on the health of forests. Safeguards performance review found that, under PRFII, 22 subprojects were conducted within forests which rehabilitated existing small tracks. Environmental impacts of such subprojects were minimal as environmental screening was conducted and adequate measures were taken to minimize and mitigate minor environmental impact. No forestry activities were found to have been engaged. However, additional care has to be exercised for such subprojects in order to ensure no negative impact occurs to the health of forests

World Bank's safeguard policy on Safety of Dams (OP 4.37)

The WB policy on Safety of Dams is triggered for the PRFIII since it will finance the construction of small weirs that will regulate the flow of small creeks. The weirs to be built will likely be classified as "small dams" as defined in the policy, for which generic dam safety measures designed by qualified engineers will need to be followed during works. The ESMF describes the procedures to be followed by PRF in order to address the safety of weirs in line with OP 4.37 provisions. Additionally, the Quality Checklist for Weir Construction used in the project is included in Annex 4 Table 4.8.

World Bank's safeguard policy on Involuntary Resettlement (OP 4.12)

The WB's *Operational Policy 4.12: Involuntary Resettlement* is triggered for this project. The policy describe objectives and guidelines to be followed in situations involving involuntary taking of land and restrictions of access to legally designated parks and protected areas as a result of land and forest use planning and demarcation and when indigenous peoples or ethnic minorities are involved. The OP 4.12 aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts. It promotes participation of displaced people in resettlement planning and implementation, and its key economic objective is to assist displaced persons in their efforts to improve or at least restore their incomes and standards of living after displacement. The policy describes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to Bank appraisal of proposed projects. For land acquisition and restriction of access to resources, the policies require close consultation of the affected population and appropriate mitigation of the potential negative impacts given special attention to ethnic, gender, and other vulnerable group issues. The policies also specify the need for monitoring and evaluation and ensuring adequate budget and capacity of the agencies.

World Bank's safeguard policy on Indigenous People (OP 4.10)

The WB's Operational Policy 4.10 (Indigenous Peoples) requires that special planning measures be established to protect the interests of ethnic groups with a social and cultural identity distinct from the dominant society that may make them vulnerable to being disadvantaged in the development process. The Policy defines that ethnic groups can be identified in particular geographical areas by the presence in varying degrees of the following characteristics:

- a close attachment to ancestral territories and to the natural resources in these areas;
- self-identification and identification by others as members of a distinct cultural group;
- an indigenous language, often different from the national language; and
- presence of customary social and political institutions.

As a prerequisite for a project approval, OP 4.10 requires the borrower to conduct free, prior and informed consultations with potentially affected ethnic groups and to establish a broad-based community support for project objectives and activities. It is important to note that the OP 4.10 refers to social groups and communities, and not to individuals. The primary objectives of OP 4.10 are:

- to ensure that such groups are afforded meaningful opportunities to participate in planning that affects them;
- to ensure that opportunities to provide such groups with culturally appropriate benefits are considered; and
- to ensure that any project impacts that adversely affect them are avoided or otherwise minimized and mitigated.

World Bank's safeguard policy on Physical and Cultural Resources (OP 4.11)

The WB OP4.11 assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects³ that it finances. The impacts on physical cultural resources resulting from project activities, including mitigating measures, may not contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements.

PRF III will trigger OP4.11 as a precautionary measure. Under PRFII projects were initiated in close consultation with locals and any areas of potential PCR's were avoided. Additionally there were no chance finds recorded in any project activity.

World Bank's safeguard policy on Projects on International Waterways (OP 7.50)

The PRFIII would finance small-scale rural gravity fed water supply systems or small-scale rural gravity fed irrigation systems which take water from run-of-rivers which flow into the Mekong, an international water. The Bank's Safeguards Policy on the International Waterways (OP.7.50) is thus triggered. In order to implement the policy requirements, PRF has requested the WB to notify the riparian countries (China, Myanmar, Thailand, Cambodia and Vietnam) about the project on their behalf as required by OP/BP 7.50.

Government regulation on EIA

Key government regulations related to environmental assessment is the environmental impacts assessment (EIA) and Initial Environmental Examination launched by Ministry of Natural Resources and Environment (MONRE) in December 2013, Pursuant to law on government of the Lao People's Democratic Republic, Ref., No. 02/NA, dated 06/05/2003, the Environmental Protection Law, Ref., No. 02/99/NA, dated 03/04/1999. The main objective of the instructions are "to lay down principles and rules, and adopt measures on establishment, functions, management and monitoring (of the concerned agencies) in environmental impact assessment and ensures that all investment projects of the State and of both domestic and foreign private individuals foreign operating in Lao PDR which create or may create adverse environment and social impact, are designed with the right and appropriate environmental and social impact prevention and mitigation measures to effectively prevent, minimize and mitigate adverse environmental and social impacts derived from investment projects" (*Annex 6*).

The IEE Instruction governs Group 1 of development projects, which refers to the small investment projects or small environmental and social impact which are subjected to an initial environmental examination. The ESIA Instruction covers Group 2 that refers to the size investment projects or with significant environmental and social impact and are subject to an environmental impact assessment. Provision has been provided to ensure that adequate actions can be carried out if an Initial Evaluation Examination (IEE) is required. A sub-project that requires a full Environmental Impact Assessment (ESIA) will not be funded and this measure is included in the "non-eligibility list" (*Annex 1*).

Government's Policy, Regulations, and Guidelines on land acquisition and resettlement

In Lao PDR, compensation principles and policy framework for land acquisition and resettlement are governed by several laws, decrees and regulations as follows: (a) The Constitution (1991), (b) the Land Law (2003)¹, (c) Road Law (1999). (d) Decree of the Prime Minister on Compensation and Resettlement of People Affected by Development Project (No.192/PM, dated 7 July 2005), and (e) Regulations for Implementing Decree of the Prime Minister on Compensation and Resettlement of People Affected by Development Project (No.2432/STEA, dated 11 November 2005) (CAR Decree), and (f) Technical Guidelines of the CAR Decree updated in 2011. New Instruction on Environmental Impact Assessment (EIA) and new Instruction on Initial Environmental Examination (IEE) in December 2013² will provide a comprehensive legal basis for development projects to conduct social assessment and plan/implement mitigation measures as needed. The IEE instruction would be more relevant and applicable for PRFIII given the nature and scope of impacts anticipated from the project implementation. The Public Involvement Guideline approved by the Minister, of the new ministry of Natural Resource and Environment (MONRE) in 2012 also provides legal basis for people affected by development projects and concerned stakeholders to participate in project development and monitoring.

The MONRE through its Department of Environmental and Social Impact Assessment (DESIA) is responsible for ensuring effective implementation of the CAR Decree and ESIA and IEE Instructions in close consultation with other line agencies and the provinces.

Government's Policy and Regulations on ethnic groups

Constitution of Lao PDR, ratified in 1991, uses the term "citizens of all ethnicity" throughout the document. It specifically recognizes the need to incorporate the concerns of ethnic groups in developing policy and programs in all sectors, and has reaffirmed its commitment to strengthen the rights of all ethnic groups in various congresses, conferences, decrees, and laws since the 1980s (Articles 8 and 22). Article 75 of the Constitution specifically indicates that "the Lao language and script are the official language and script.

The 1992 Ethnic Minority Policy of the Lao PDR³ towards ethnic minorities identifies three essential tasks: (i) strengthening political foundations, (ii) increased production and opening of channels of distribution in order to convert subsistence-based economics towards market-based economics, and (iii) a focus on the expansion of education, health and other social benefits. Of direct relevance to this Project this 1992 Policy states that the Lao PDR must discourage ethnic minorities from continuing their practices associated with shifting cultivation through arranging for permanent livelihoods for such groups so that the benefits of other forms of agriculture outweigh those associated with shifting cultivation. Basically the Lao PDR considers that many of its upland minorities (and this especially includes the Khmou and Hmong) observe "backward traditions that are reflected in their production lifestyle". In practice the Lao PDR realizes that it is quite impractical to change all these "backward" practices it attributes to ethnic minority groups because of limited arable area for

¹ The Land Law 04/NA of 21 October 2003 supersedes the earlier Law 01/NA 12 April 1997.

² These two ministerial instructions supersede the earlier EIA Decree, 2010

³ Known under its full title as Resolution of the Party Central Organization Concerning Ethnic Minority Affairs in the New Era.

Lowland agriculture and even many Lowland Lao are involved in some forms of upland agriculture.

A new national guideline on consultation with ethnic groups launched by the LFNC in 2013 in line with the National Guideline on Public Involvement, 2012. It aims to ensure that all ethnic groups who benefit from or are adversely affected by a development project, without regard to the source of funding, are fully engaged in a meaningful consultation process at all stages from preparation into implementation. The guideline also aims to ensure that the potentially affected ethnic groups are better informed of project objectives, as well as their potential positive and adverse impacts on their livelihood and their environment, and provided with opportunities to articulate their concerns. The guidelines provides principles and process to carry out meaningful consultations with, and obtain free, prior and informed consent of, all ethnic groups affected by developments projects in a culturally sensitive manner. The guidelines consists of a) objectives and scope of the guidelines, b) consultation processes with ethnic groups at respective stages of development projects c) consultation approaches and methods for different ethnic groups in a cultural sensitive manner, d) expected outcomes of consultation at each stage, and e) implementation arrangement and responsibility. Key principles and procedures for consultation with ethnic groups in this guideline are adopted into the PRFIII safeguard instruments (ESMF, CDRF and EGPF). The copies of guidelines in Lao language will be provided to all PRF district offices and the staff received training on the guidelines.

Project Implementation Management

The Poverty Reduction Fund (PRF) is overall responsible for the implementation of the PRFIII and environmental and social safeguard compliance. PRF teams are becoming increasingly experienced in safeguards management relative both to implementation and reporting. Specifically, the Technical Assistance (TA) department with staff from the central down to the district level is directly responsible for the implementation of this ESMF. In each district the TA department has one staff who carries out survey and design, identify environmental and social impacts and develop mitigation measures for about 8 subprojects annually. A negative checklist will be used as a screening tool to select sub-project proposal used by PRF TA's. The district TA department is also responsible to ensure that, when triggered, an appropriate ECOP is attached to the civil works contract and supervise the contractors for compliance.

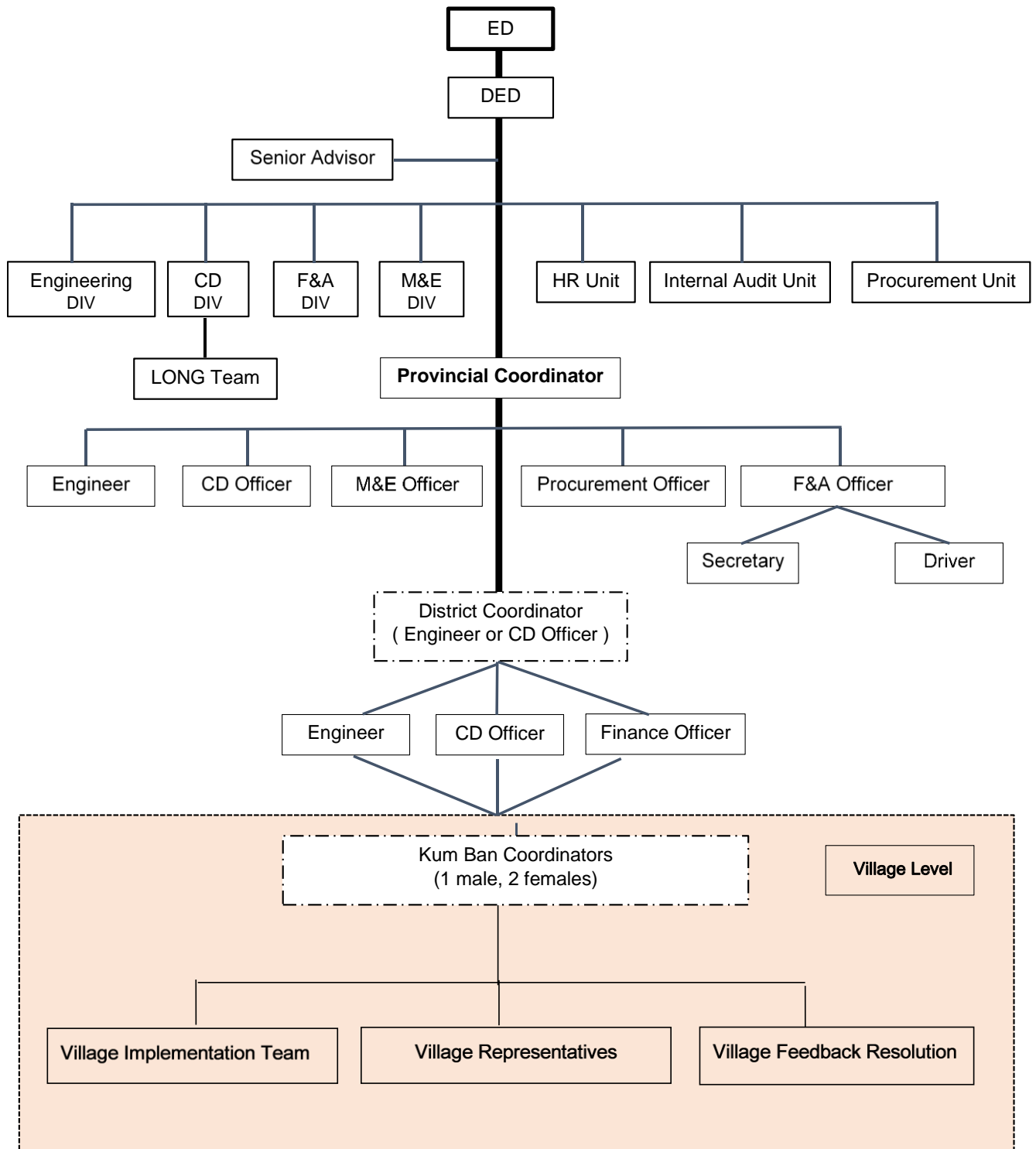
The District TA is also responsible for the implementation of the Compensation and Resettlement Planning Framework (CRPF) in close collaboration with the Community Development (CD) department, and collectively identify and mitigate land/ asset loss as a result of subproject implementation. The CD department has staff from the central down to the district level and is responsible for managing participatory processes including consultation with and participation of ethnic groups in the project planning and implementation processes. The CD is thus responsible for the implementation of the Ethnic Group Planning Framework (EGPF). In case negative impacts are likely to occur, the CD team would collaborate with the TA team and seek to avoid, minimize and mitigate such negative impacts. Based on the outcomes of safeguard screening and assessment, the district CD team will prepare required social safeguard instruments such as Land Acquisition or Resettlement Report (LA/RR) and Abbreviated Resettlement Action Plan (ARAP) to be submitted to PMT for approval. The CD team will also be responsible for monitoring and

reporting social safeguard compliance by the beneficiary communities and contractors with inputs from Kumban Facilitators.

At the village level, the Village Implementation Team (VIT) is responsible for overall safeguard compliance on behalf of the beneficiary communities. The VIT consists of village leaders elected by villagers themselves and village representatives of LFNC and LWU. Decisions with regard to the use of project resources is made at the community-wide meetings. Efforts have been made during the implementation of the PRFII to increase the participation of ethnic minorities who may not live in the main village settlements in decision making processes by holding separate meetings with them before the village wide meeting is held and a community wide decision is made. The PRF TA and CD staff participate in a community wide meeting where subproject designs, expected environmental and social impacts and mitigation measures including voluntary donations are presented for feedback from community members. Prior to the community wide meeting, PRF TA and CD staff will meet affected households individually and confirm their will to donate assets. Affected ethnic people are encouraged to report to LFNC and LWU village representatives. The PRF CD will keep a close contact with the LFNC village representatives through the VIT of which they are members. VIT will also obtain information on environmental and social impacts for the district CD team either directly or via Kumban Facilitators.

At the Kumban level, which is the cluster of villages, Kumban Facilitators help facilitate community meetings and mediate between District PRF staff and communities. Their responsibility includes confirmation that voluntary donation processes are completed prior to the commencement of the civil works. They are empowered to report to the district PRF to delay the commencement of civil works if voluntary donation process is not completed as per CRPF.

PRF organizational structure



SECTION III: IMPLEMENTATION EXPERIENCES OF PRF II

General Project Impacts: Monitoring and evaluation conducted during the PRF II indicated that no major adverse environmental and social impacts were observed. PRF funded sub-projects are predominantly community small-scale infrastructure development (including schools, markets, dispensaries, over-flow bridges, access roads, water supply, water storage facilities and irrigation systems/ weirs), livelihoods projects (including fish and poultry raising, livestock raising, household and community gardens, etc.) and TA to water sanitation projects (capacity building, no civil works involved). The table below provides a more detailed breakdown of the sector areas of PRF II initiatives including percentages for each sector:

| Sectors | Cycle IX (2011-2012) | Cycle X (2012-2013) | Cycle XI (2013-2014) | Cycle XII (2014-2015) | Total | % |
|----------------------------|-------------------------|------------------------|-------------------------|--------------------------|-------------|-------------|
| Agriculture and Forestry | 19 | 18 | 38 | 41 | 116 | 8.1% |
| Education | 73 | 94 | 119 | 165 | 451 | 31.6% |
| Energy and Mines | 3 | 7 | 6 | 2 | 18 | 1.3% |
| Health | 10 | 22 | 23 | 23 | 78 | 5.5% |
| Public Works and Transport | 45 | 107 | 57 | 75 | 284 | 19.9% |
| Water & Sanitation | 112 | 145 | 90 | 132 | 479 | 33.6% |
| Total | 262 | 393 | 333 | 438 | 1426 | 100% |

Some issues raised in project implementation are common for all sub-projects:

UXO: Preliminary screening will also be needed to assess the presence of Unexploded Ordinances (UXOs) and the danger they may cause to the implementation of subprojects. As many districts throughout the Lao PDR are adversely affected by the presence of UXOs clearance may be required as a preliminary stage of sub-project activities.

The PRF will continue to seek advice from UXO Lao and local communities and authorities during the sub-projects' technical feasibility study in order to determine the levels of contamination of the sub-project sites (No contamination, moderate and high). Seven of the ten provinces in which PRF are active have an issue with UXO contamination. Within these impacted provinces, contamination is geo-specific meaning that in some districts, a general screening is sufficient. In the areas with no contamination, sub-project activities and construction can proceed without having to undertake any UXO screening activities. The screening process also incorporated this aspect.

Prior to the design of a sub-project in a new village where the PRF has never worked before, the PRF normally contacts UXO Lao for data. The UXO Lao has maps of the bombing routes used during the hostilities which help identify the high risk areas in advance as a screening tool. PRF will then coordinate with the UXO Lao teams to ascertain if clearance would be required and, if so, to have clearance of the land area added into the particular UXO yearly clearance plan. In the event of an ordinance being found during the course of a project implementation, local UXO Lao offices would be contacted to appropriately render the munition safe.

Ethnic Groups, gender and disadvantaged groups: The PRF II has been designed to benefit all ethnic groups and the planning process has been designed to promote inclusion of all ethnic groups. However, the recent technical assessment and observation during field visits suggested that there are additional opportunities to ensure that ethnic peoples, including women and disadvantaged peoples, better understand the PRF process and receive greater benefits than they do now.

Under the PRFIII, efforts will continue to be made to ensure that PMT staff at central and local levels have a clear understanding on various aspects of ethnic issues, especially those related to the positive and negative impacts of the sub-projects, including the needs to address the gender and disadvantages issues. An Ethnic Groups Policy Framework (EGPF) was updated to provide measures to improve consultation with and participation of ethnic groups in project planning and implementation processes.

Land Acquisition: No physical relocation or large-scale land acquisition occurred under the PRFII, but the construction of community infrastructure may need a limited size of land. Voluntary land donation has been applied as a normal process for the PRFII, and will continue to be applied under the PRFIII. The Compensation and Resettlement Planning Framework (CRPF) was updated to clarify principles and procedures under which impact on private assets is addressed as voluntary donations. Where criteria of voluntary donations are not met, an abbreviated Land Acquisition Plan will be developed according to the provisions of the CRPF. Resettlement and demolition of houses and business will not be allowed and this has been included in the “non-eligibility list”.

Physical and Cultural Resources: Within PRFII and AF, any issues pertaining to Physical and Cultural Resources were mitigated by a combination of planning away from sensitive areas and the geo-planning which would ensure that no impacts would occur on physical and cultural resources. The safeguard assessment conducted during the preparation of the PRF III found that no subprojects have been implemented in area where there are known Physical and Cultural Resources. Additionally, no chance finds were observed under the PRF II funded subprojects. Since the PRF III would finance the similar activities of the similar scale in the same geographical areas as under the PRF II, it is unlikely that chance finds would be observed under the PRF III. The policy will however be triggered as a precautionary measure for the PRF III. The specific ECOP (Table 4.6 in Annex 4) developed under the PRF II would continue to be used to address an unlikely event where chance finds of any physical and cultural resources are observed that were unknown at the planning stages.

Forests: The Forests Policy is triggered because some villagers to be supported under PRF III live in national or provincial protected areas and the implementation of subprojects may have negative impacts on forests in such protected areas. The policy is triggered for precautionary reasons to ensure that any physical interventions, including those proposed in known reserved or declared national forest zones and protected areas, will not directly lead to degradation of critical forest nor induce degradation such as by creating access. Under the PRF II, any road works are prohibited in order to avoid such an induced impact. However, the safeguards performance review of the PRF II found that 22 road activities (a little over 1% of the total number of projects initiated) had been financed within the boundaries of protected areas. The impacts were negligible given that they involved rehabilitation of existing tracks that proper screening and environmental management measures were incorporated at the planning stage in line with ECOP. Under PRF III, any road projects will continue to be prohibited inside or

close to forests in order to avoid induced impacts. PRFII had an additional 56 activities within protected area boundaries (predominantly small buildings, water supply and small irrigation), environmental impacts from such activities to be minimal as the usual screening and incorporation of environmental management at the planning stage provided suitable minimization and mitigation of expected impacts. However, given the sensitivity of implementing a subproject in such locations, the existing requirement that an ECOP should be applied for any subproject within protected areas will be strictly applied.

Given that 22 roads activities were initiated in protected areas under PRF II, all road activities will be strictly prohibited. Additionally, an action plan will be initiated following the broad stages with immediate effect PRF III:

| Action | Responsibility | Deadline |
|---|-------------------------------|-------------|
| Initiate and investigation into the process leading to approval of these activities | PRF WBG – oversee / advise | March 2016 |
| Report submission (including measures to guard against repeat) | PRF | May 2016 |
| Review and recommendations | WBG | June 2016 |
| Procedure drafted for PRF III and approved | PRF / WBG | August 2016 |

This will be overseen by the Environmental Safeguards Specialist and led by PRF team technical advisors.

Safety of Dams: this policy was triggered under the PRF II AF with any construction on a river that restricts water flow being classed a ‘dam’. Given the project has a number of irrigation and gravity fed water supply systems, these are now considered to be dam structures and hence must comply with the safeguard. The PRF has a mechanism for checking and monitoring the safety of the structures. This is now included in the ESMF (Below Table 4.8 under Annex 4). So far, there have been 32 irrigation subprojects that built or renovated weirs on the river (28 construction and 4 renovation). For gravity fed water systems, these smaller weirs numbered around 243 constructed and around 137 renovated. Safety for these activities was monitored with the Quality Control checklist which is now also included in this ESMF. No safety issues have been reported.

Natural habitat: the policy is triggered due to minor disturbances and site specific impacts of subprojects. Throughout PRF II, the relevant screening and ECOP procedures were implemented. These tools have been strengthened to ensure that impacts occurring during PRF III are properly managed with avoidance, minimize in design and mitigate being the overarching principles incorporated. In line with the OP4.04, PRF is required to develop a specific EMP for all subprojects in NBCA’s which would include all management and mitigation measures. PRF will provide training on such EMP’s, with the support of the World Bank, with the process strengthening monitoring in these sensitive areas.

Specific Project Impacts

The small-scale construction predominantly is undertaken by contractors with local communities supplying labor in some cases. Given that civil works undertaken by the project tend to be small-scale there is limited potential for adverse environmental impacts. Below summarizes the main safeguard issues and the mitigation measures carried out during the implementation of the PRF II.

Any investment activity/sub-project that involves civil works or changes to land or water use has the potential to generate negative environmental impacts. Given that size and location of the civil works are important, a set of criteria has been established and applied under the PRFII, which will continue to be applied under the PRFIII, with additional clarifications on the screening process and specific actions for each type of civil works.

Under PRF II, the main processes applied in environmental impacts assessment, an internal Environmental Screening form in conjunction with specific ECoPs and negative lists, which formed part of the PRF II ESMP. This form was used in all PRF II projects along with relevant ECoPs. At the planning stage for PRF II-AF, a comprehensive review of this process was initiated between the client and WBG. Review indicated that process could be improved by addressing the following issues:

- The form was very efficient being used at the planning stage of the project but did not capture monitoring throughout the project cycle. Including no system to record unexpected issues that may arise during project implementation.
- Geo-specifics of the project location were not captured in the monitoring process.
- Implementation experience detailed by the client indicated the selected contractor was unaware of the environmental and social obligations of the contract.
- Completed forms indicated that there was lack of understanding relative to environment and specifically types of impact.

Each issue above was addressed within the revised system which built upon the screening process which was being used in the PRFII. Most importantly a full training program was initiated to address environment in general, environmental impacts, specific impact types they may encounter given the type and scale of PRF projects and how to mitigate them. The new form was also presented with practical demonstrations on its use and feedback invited from participants. Around 60 provincial PRF team engineers from all PRF active provinces were trained (an average of 6 per province) in 4 sessions that covered the country. A review ensued and the final environment monitoring process is now being trialed in implementation of PRFII-AF. A follow up training was conducted in the capital with initial results assessed as very positive.

Minor environmental impacts were observed within the completion of activities financed by the PRF II but none that would be described as significant. A summary of impacts encountered for each project sector under PRFII is contained in the table below:

| Sector | Summary of typical impacts encountered |
|--------------------------|--|
| Agriculture and forestry | <ul style="list-style-type: none"> - Watershed management plan - Disease vectors (mosquitos) |

| | |
|----------------------------|--|
| | <ul style="list-style-type: none"> - Pollution - Fish passage - Tree cutting without replacement |
| Education | <ul style="list-style-type: none"> - Tree cutting without replanting - Erosion - Waste management (construction) - Noise / air quality (construction phase) |
| Energy and Mines | <ul style="list-style-type: none"> - Tree cutting along alignment - Land use planning and authorization - Routing best practices - Health and Safety - Waste management (construction) |
| Health | <ul style="list-style-type: none"> - Tree cutting without replanting - Erosion - Waste management (construction) - Noise / air quality (construction phase) - Odor issues - Waste management (operation) |
| Public works and Transport | <ul style="list-style-type: none"> - Tree cutting without replacement - Erosion - Watershed - Water impacts (runoff and discharge) - Fish passage during construction |
| Water and Sanitation | <ul style="list-style-type: none"> - Erosion - Air pollution and odors - Disease vectors (mosquitos) - Water quality |

Under the PRF II AF, the existing environmental screening mechanism was strengthened to better identify and document environmental and social impacts that may occur under the PRF subprojects. It builds upon the previous PRF Environmental Screening instrument and works concurrently as a screening tool, at the planning stage of any PRF project, and a monitoring tool during implementation through to completion. Intensive training was conducted to PRF implementation staff in four provinces with attendees from all 10 PRF provinces in attendance. Final revisions were made to the new process which was then trialed in cycle 13, with the initial results indicating the improvements are substantial and verifiable. . The reporting systems on performance standards have been improved and will continue to be supported with training and refresher training provision to PRF teams. A screening process was carried out to record potential impacts that would allow minimization and mitigation to be incorporated prior to works being undertaken. This monitoring tool has been updated and improved when the PRF II AF was prepared with a new control document that should ensure monitoring and evaluation continues throughout the construction period and not just at the

outset. This will allow unforeseen issues to be reports along with the mitigation used to minimize impacts.

Under PRF III, the Environment Code of Practice (ECOP) will be streamlined then integrated and mainstreamed into construction works and, when appropriate, included in operation and maintenance manuals and procedures within village agreements. When tree cutting is unavoidable, new trees of similar species should be planted in an appropriate location to compensate this loss.

Livelihoods

Pest Management:

Implementation of sub-projects related to irrigation (new and rehabilitation) may induce the use of pesticides while the knowledge on safe use of chemicals is important for farmers. The safeguard assessment conducted during the preparation found that there is no significant use of either chemical pesticides or fertilizers being used in project areas. The PRF III will continue to provide basic knowledge on alternative options for agriculture development and /or livelihood activities.. The focus will remain on the promotion of organic solutions which are shown to be highly effective. In compliance with the WB Pest Management Safeguard Policy (OP 4.09), a simplified Pest Management Plan has been prepared and it will be applied to activities/sub-projects involving irrigation scheme and livelihood activities.

Water and Sanitation:

The PRF III would provide facilitation services to the GoL's Water and Sanitation program (WSP). As under the PRF II, the PRFIII would finance only the cost of travel and per diem for community facilitators and would not support the construction of latrines - which will be financed solely by villagers themselves - a due diligence was conducted by the Bank team to ensure that villagers would build latrines in line with the Bank safeguard policies.

World Bank's team monitoring of water and sanitation systems financed in the project areas has demonstrated that due diligence relative to safeguards is being sufficiently met. Installed wet latrine systems follow the production / installation guidelines manual and particularly for maintaining distance from the water supply systems wherever possible. Visits to supply contractor's demonstrated good waste management and pollution control along with sourcing used oil for production needs via recycling from local garages. Additionally, in interviews management and owners demonstrated complete understanding of installation requirements. Included in this was the distance requirement noted above and fitting of adequate ventilation pipes to relieve gas from the system at suitable heights.

Nam Saat recently developed an Environmental Code of Practice (ECOP) for the construction of latrines and guidelines for the engagement with ethnic groups, which the Bank safeguard specialists found are in line with the Bank's OP 4.01. The revised ESMF includes an expanded Environmental Code of Practice (ECOP) to ensure that the construction and management of latrines would be carried out in an environmentally sustainable manner although the project will not finance such latrines. In some cases Health and safety, PPE and

proper shoes / first aid kits in production areas could be improved and the World Bank will play an active role in promoting Health and Safety measures at supply companies.

SECTION IV: PRINCIPLES AND PROCEDURES TO MITIGATE IMPACT UNDER THE PRF III

Anticipated impacts under the PRF III

Since the PRFIII would continue to finance activities of the same types and maintain the same sub-grant ceiling (60,000US), the scale and scope of impact are expected to be similar to those experienced under the PRFII. No significant or irreversible impact would occur under the PRF III. Physical relocation of households or businesses is not allowed. For the construction, improvement or rehabilitation of community infrastructure, major environmental impacts are unlikely to occur, given the small size of investment (on average, \$43,000), although minor impacts are expected the impact will be minimized, mitigated and compensated with management incorporated at the management stage. Activities to support nutrition enhancing livelihood development will unlikely result in any adverse environmental impacts. As under the PRF II AF, the construction of new structures or repair of existing structures will not be allowed. The PRF III would not procure and promote use of chemical pesticides and fertilizers, which will continue to be included in the non-eligibility list as under the PRF II, and would continue to promote organic farming. However, beneficiary farmers may apply pesticides, herbicides and insecticides providing it does not breach of the PMP or the “non-eligibility” list. The PRF III will continue to monitor and provide advice to farmers on safe use whilst continuing to promote organic methods of pest control and natural fertilizers.

The partnership with Water and Sanitation Program (WSP) will unlikely result in environmental impacts– the PRFIII would facilitate beneficiary villagers build simple pit latrines of their own, if they choose to do so, within their own residential plots. The PRF III would not finance the cost of building private pit latrines, or build public latrines – the PRF III would finance only the travel costs of community facilitators and community leaders to receive training in basic sanitation and facilitate behavioral change of community members. The suppliers in some provinces have been checked for environmental compliance and found to be competent. More monitoring of suppliers is recommended including review of the contracts.

The following have been undertaken under the AF to improve the project environmental performance: (i) improve reporting and recording system of safeguard related issues; (ii) systematically apply safeguard’s measures provided in the ESMF (ECOP and PMP); (iii) conduct refresh training for technical staff to monitor safeguards compliance under project financed activities at least once per year; (iv) link RPF II activities into conservation of nearby natural habitats, forest area and water sources to enhance positive impacts of PRF project.

Throughout PRF III the strengthened environmental monitoring system and ECOP will continue to be monitored throughout the initial trails. It is expected that mid-2016 an internal review will take place to assess both the effectiveness of the new system in managing and reporting impacts, but also the capacity of provincial teams to implement the new measures. As mention above, training has been provided and this may require follow up training throughout PRFIII. In addition, special attention will be paid to project in or close to National

Biodiversity Conservation Areas to ensure the minimal impacts observed are properly managed and reported. Review found that road upgrades within NBCA's numbered 22 out of a total of 1 400 projects undertaken. The "Non eligibility list" has been strengthened and their enforcement more strongly monitored to prohibit any road projects within the boundaries of an NBCA or road linking the NBCA boundary. This now means that any project within or close to the boundary of an NBCA will require an EMP be completed prior to proceeding.

Actions to forge effective implementation of safeguards

It is expected that the civil works to be carried out under the PRF III will continue to be limited to the construction of community infrastructure and the mitigation measure would be similar to those of the PRFII. Below summarizes measures to improve safeguard performance of PRF in responding to the key findings of safeguard performance in the PRF II.

- The "non-eligibility list" was updated to ensure effective implementation of the sub-projects and establish a "preference list" to mitigate the potential indirect impacts as well as promote conservation of natural resources and protection of environmental quality and public health;
- Provide clear guidelines on how to integrate safeguard measures into the planning and implementation process (Annex 2);
- Improve effectiveness of the screening and recording system at local level by providing a clear safeguard screening and monitoring forms (Annex 3) as well as a clear mitigation measures practices (environmental code of practices, ECOP) for all type of civil works (Annex 4);
- Increase awareness and knowledge of Provincial and District PRF team and community leaders/facilitators to understand the potential negative impacts (social and environment) of infrastructure development, especially road and bridges, as well as the potential for enhancement of positive impacts on conservation of natural resources, local environment and public health;
- Promote active cooperation of local community in the areas that reduce potential negative environmental impact and enhance positive impacts should be encouraged through capacity building and various on-the-job training activities and community networking;
- PRF/PMT will provide periodic training and supervision to the PRF local staff so that they could provide appropriate information on various safeguard issues of the subprojects during the planning process as well as can keep proper records;
- PRF/PMT will include a section on safeguard performance in the project progress report and ensure effective coordination among various units, including monitoring and evaluation (M&E);
- The Bank will review and provide implementation support including safeguard training as needed.

Subprojects Implementation Procedures

Non Eligibility lists

To avoid potential negative impacts on local community and local environment, a list of prohibited item and/or activities that cannot be financed (ineligible or the "Non eligibility list") has been established for the PRFII and will continue to be applied under the PRF III.

Details are provided in *Annex 1* and these lists will be included in the Project Operation Manual.

Safeguard screening and review process

In order to minimize the sub-projects' impact on the environment, the PRF has integrated a safeguard requirement into the PRF sub-project planning and approval process (*Annex 2*) and a technical guideline is also provided (*Annexes 3, 4, and 5*). This is to ensure that screening and assessing the potential impacts of a proposed sub-project will be made in line with Bank safeguard policies and national laws before it is approved and that the measures are in place to mitigate the negative impacts of approved sub-projects during their design, construction, and implementation and operation. Below are highlighted key descriptions of the process:

Step (1) Sub-project identification phase

Screening for of subprojects will be based on potential environmental and social impacts and will follow the applicable Bank safeguard policies procedures as well as the national laws.

Screening for negative and preference list: before a sub-project is approved, the PRF local staff at village, Kumban and district level facilitates several meetings. During these meetings, the PRF local staff informs the communities of the potential environmental risk of the sub-project, raise awareness of communities about the need for sustainable use of natural resources and protection of the environment by the communities, and gather information on areas where a sub-project will be implemented; for instance, the current land use of the site, existence of protected area, etc. If the sub-project is found to include activities specified in the prohibited activities ("non-eligibility list"), it will be screened out or reconsidered to exclude such activities. If it is in the "preference list" due consideration should be given to increase priority of the activities.

As with PRFII, the sub-project proposal and environment monitoring forms in Annex 3 (A3.1 and A3.2) are used for all PRFIII projects regardless of size or location as the steps in the environment and social assessment and monitoring project cycle process (Annex 3). This is a precautionary measure implemented by the project which exceeds the requirement of the Lao government. The thresholds for when a PRFIII project would require an IEE in the government format is in Annex 6 (Lao version – pending translation).

A simple environmental assessment and identification of possible impacts and mitigation measures will be conducted by the PRF local team in close consultation with the Bank team and PMT in order to comply with the Bank safeguard policy requirements (*Annexes 4 and 5*). A draft assessment report should be reviewed in consultation with the village members and other stakeholders to seek and incorporate their views into the sub-project design and mitigation measures. The report will also be sent to the Bank for review. Specific requirements (good engineering practices and housekeeping) will be included in the bidding and contract document and contractor performance monitored and reported.

(a) ***Screening for social issues.*** The PRF local staff will also screen for the need for land acquisition, resettlement, and disadvantages groups/households. All sub-projects that require land acquisition of disadvantages groups/households (*non Lao-*

Thai ethnic groups, poor household headed by women, poor household with elderly, handicap, and/or children) should conduct a brief social assessment and preparation of an abbreviated Land Acquisition or Resettlement Report (LA/RR) following the CRPF and/or consult the Bank specialist(s).

(b) ***Application of the ECOP:*** For small-scale works, PRF local team will conduct the simple assessment and mitigation measures as described in the Environmental Code of Practices (ECOP) that has been developed for specific small community infrastructure investments with low risks such as rural roads, irrigation/small reservoirs or weirs, water supply, and buildings (*Annex 4*). All the records will be kept in the sub-project file for possible review by the PRF at the Central as well as the World Bank.

Step (2) Sub-project design phase

(a) Sub-projects which are submitted by a village and which have been pre-selected during the Kumban and the district meetings are then designed by the villagers with the technical support of the relevant district office and the PRF team. The required mitigation measures for design stage will be incorporated into the final design.

(b) The Sub-project Proposal Form (*Annex 3, Table 3.1*) will be used to document the design and includes a quick assessment of the potential negative impacts based on the criteria mentioned in Step (1) above which allows the team to check if there are any specific risks identified. PRF local team fill in the form based on the villagers' knowledge, on *in-situ* observations and on prior discussions with district government staff (in order, for example, to cross-check that the sub-project will not be located in a protected area). At this stage, sub-project activities specified in the "non-eligibility list" will be completely excluded from the sub-project while those from the "preference list" will be included in the sub-project. The PRF Environmental Screening (*Annex 3, Table 3.2*) will also be used to identify any potential environment impacts, assess their potential impacts and incorporate management processes at the design phase.

(c) Contract templates for sub-contracted work have been modified to include specific clauses detailing sub-contractors' obligations in terms of environmental protection.

Step (3) Sub-project implementation phase

(a) The implementation of mitigation measures as well as the monitoring and inspection of potential environmental risks is the responsibility of the communities with possible support and involvement of district Water Resources and Environment Office staff. Training and awareness raising activities will be conducted to ensure that communities are aware of sub-projects environmental risks and to ensure they will take actions to mitigate these risks and to increase their capacity to ensure that contractors are respecting their obligations in terms of environmental protection. The revised monitoring process now incorporates discussing environment and social obligations in the contract with the selected contractor and keeping a record of the meeting. Information, Education, Communication (IEC) tools developed before the beginning of the PRFII will continue to be used, and training sessions on environmental

protection will be conducted by the PRF community development team at the inception and during the implementation of the sub-projects.

(b) During the implementation phase, regular technical monitoring visits will be conducted by the PRF team and relevant district offices to monitor environmental impacts and inspect the implementation of mitigation measures. When the work is sub-contracted, a final inspection visit will be organized before handing over the infrastructure to the community. All stages of implementation from planning to inception and handover, are now recorded in the revised environment monitoring process. The PRF team will use a specific form to assess the quality of the work during the visits, which includes an environmental monitoring and inspection checklist (see *Annex 3, 3.2*)

Safeguard requirements on TA activities.

Under the PRF III, some analytical works such as impact evaluation and technical audit would continue to be carried out, and implementation support would continue to be provided to partner programs including the Open Defecation Free (ODF) campaign of the National Center for Environmental Health (Nam Saat) under the Ministry of Health. No analytical works to be supported under the PRF III is expected to cause any environmental or social issues, however, the consultancy terms of reference would specifically mention that the Bank safeguard policies should be complied with. The ECOP developed under the PRF II AF would continue to be used for the partnership with Namsaat. A similar partnership may also be made with the cookstove initiative under which the VIT and KBF may serve as village platform to introduce the clean cookstove⁴. While the nature of the partnership, if it happens, will be elaborated, the PRF III would not finance the cost of purchasing cookstoves. It is unlikely that the PRF would start any other partnership during the life of the PRF III, however, the PRF would inform the Bank in the event that it contemplates on another partnership, and seek for guidance on, carry out due diligence and address gaps, if any, with the Bank safeguard policies, before it starts a new partnership.

Implementation, monitoring, and reporting

The Figure 1 below summarizes the Implementation, monitoring and reporting measures of the PRFII related to the ESMF. The Technical Assistance (TA) and Community Development (CD) departments with staff from the central down to the district level is directly responsible for the implementation of this ESMF. In each district the TA department has one staff who carries out survey and design, identify environmental and social impacts and develop mitigation measures for about 8 subprojects annually. The district TA department is also responsible to ensure that an appropriate environmental monitoring forms and ECOP are attached to the civil works contract and supervise the contractors for compliance. The PRF recently developed civil works check list which includes contractor compliance with ECOP which will be filled and filed by the relevant district TA staff (District PRF Engineer). The Provincial TA review all filled civil works check list, and the central TA will randomly review the filled civil works check list as part of environmental performance monitoring. The CD team is responsible to ensure compliance, monitoring and reporting on social safeguard requirements. The District CD staff will assist the preparation of the LAR, which will be reviewed by the PMT as well as by the World Bank's task team. In case of voluntary donation

⁴ This initiative is currently supported under the Bank Executed Trust Fund.

of minor assets or land, the agreement forms shall be completed and included as an annex to the sub-project proposal.

The following guidance will continue to be used under the PRF III.

Table 2. Guidance on safeguards issues and actions

| Potential negative impacts | Required mitigation actions | Remarks |
|---|--|---|
| (1) Permanent or temporary loss of land or resources for any households, including restriction of access to natural resources and/or impediments to movement of people and animals (Includes patrolling activities) | <p>Identify the amount and nature of land required, owner, and/or other issues and prepares a Land Acquisition/Resettlement Action Plan (LARAP) or LAR/RR to provide compensation and/or assistance following the Compensation and Resettlement Planning Framework (CRPF) of Lao PDR.</p> <p>The project will support increasing awareness of Persons Affected by Project (PAPs) about the Feedback and Resolution Mechanism (FRM), and build capacity of those involved in existing Feedback and Resolution Committee (FRC) on the required tasks, including dealing with or mediating complaints, recording/reporting and monitoring proposed resolutions.</p> | Prior consultation with WB, proper documentation, and Post review by WB may be necessary. |
| (2) Potential social conflicts arising from land tenure and land use issues and/or in water supply rights or related social conflicts | <p>Develop mitigation measures for conflict resolution through close consultation with stakeholders and placed within Project processes, inherently community-based and collectively managed, not precluding the involvement of third-party/external mediators.</p> <p>Develop Village Resources Use Agreement;</p> <p>Using existing Community Conflict Resolution Mechanisms that most likely led by senior/elderly respected persons, or leaders of Ethnic Groups (EG).</p> | If the conflicts may deteriorate livelihoods or living conditions of women or the poorest families in the sub-project area or involve political influence, or likely to be escalated to higher level, the PRF team will inform the WB |
| (3) Likely to adversely affect ethnic groups | Carry out social assessment process through free, prior, and informed consultations as part of the village visioning meetings and develop and describe in the sub-project documents measures to address them in line with the provisions of EGDF. | Prior consultation with WB, proper documentation, and Post review by WB may be necessary. |

| | | |
|---|---|---|
| | The project will support increasing awareness of PAPs, in respective languages of IP groups, about the FR mechanism, and building capacity of those involved in the existing FR Committee on the required tasks, including dealing with or mediating complaints from individual and/or ethnic groups, recording/reporting, and monitoring proposed resolutions. | |
| (4) May induce the use of pesticides and/or toxic chemicals that could affect soil quality, water quality, and/or water users downstream | Prohibit the use of pesticides and toxic chemicals exceeding the amount required to treat efficiently the infected area; prohibit the use of illegal pesticides/insecticides; Apply the simplified pest management plan and provides training to farmers/fishers. | |
| | | |
| (5) UXO risk | If yes, contact responsible agency and complete the clearance before conducting project activities. | PMT to take the lead in securing safety of the project area |
| (6) Construction of weirs that will divert or regulate the flow of river | If yes, follow Annex 7 | PRF engineers will pay particular attention to the safety of weirs and associated environmental impacts |
| (7) Activities involve small civil works that may cause temporary air, noise, and/or water pollution, soil erosion, and/or create public health risks, wildlife hunting, or impacts on downstream water uses. | Apply good engineering and/or good housekeeping with close monitoring and supervision, including maintaining close consultation with local population. The contract will also include a special clause on “ <i>chance find</i> ”. | PRF team at the local level and PMT will ensure that the appropriate mitigation measures and construction material in line with National Laws and Regulations and safety standards are included in the contract and that the contractor effectively implements required |

| | | |
|--|--|---|
| | | mitigation measures. No asbestos material will be used for any construction site. |
|--|--|---|

SECTION IV: PUBLIC CONSULTATIONS

During the preparation of the PRF II AF, the revised ESMF was consulted with key stakeholders through the safeguard consultation meetings held in Pakse, Champasak province on March 18, 2015, Oudomxay province on March 20, 2015 and in Vientiane on March 23, 2015. Participants sought for information about the allocation of PRF sub-grants between villages, methods of impact assessment and impact mitigation, and grievance and conflict resolution mechanism. The relevant department heads of PRF participated in the meetings and addressed the questions and comments received. For PRFIII, a new round of consultations will be initiated at an appropriate time and place in 2016, the minutes for which will be added to this document following these meetings.

Throughout the implementation of the PRFIII, beneficiary/ affected communities will be informed of the overall project approach including the provisions of this ESMF as part of the participatory planning processes.

Safeguards training

Safeguards training. PRF will continue to organize training to PRF teams on how to apply the updated ESMF, CRFP and EGDF, use the various checklists, screening and reporting forms, table on typical environmental impacts and mitigation measures as indicated in the ECOP as appropriate. Substantive provincial training on safeguards was provided in 2015 reaching provincial TA's from all 10 provinces in which PRF is active. This was consolidated at a workshop in Vientiane during January 2015 which covered environment safeguards refresher training. Within PRFIII this will be monitored and consolidated to streamline the safeguards implementation and reporting. Safeguard training to PRF staff should be carried out as part of the overall training of PRF staff throughout the PRF process. Adequate budget is allocated for safeguard training as well as for the implementation of mitigation measures (see the budget section). Mitigation of safeguard activities during construction will be part of the construction costs.

Budget

Capacity development for participatory and transparent decision making processes involving ethnic groups, including on minimization of negative impacts on any members of the community, is part of the standard PRF process. As such, the PRFIII would continue to allocate significant resources for such capacity development. The PRF also recognizes environmental and social sustainability as an important ingredient for sustainable poverty reduction, and will continue to raise awareness of community members on and develop their basic capacity to comply with environmental and social safeguard requirements under the PRFIII.

As the table attached below shows, the AF would allocate about \$300k for the capacity development of communities on the implementation of project safeguard instruments, which

is about 3% of the IDA funding. It is to note that the actual spending on safeguard implementation will be significantly higher. Many PRF activities include aspects of safeguard implementation or monitoring. For instance, ECOP monitoring is carried out as part of the overall supervision of sub-project implementation. Refresher training of VIT on participatory processes has multiple objectives of which safeguard is just one. The cost of the village validation meeting will cover both safeguard aspects as well as non-safeguard aspects. Since safeguard implementation and monitoring are embedded in many project activities, it is difficult to estimate the budget that will be spent under the PRFIII purely and only for the safeguard implementation and compliance.

| Safeguard implementation cost under PRF III | |
|--|-----------|
| Refresher training of village implementation team (VIT) on participatory processes including engagement with ethnic groups | \$20,882 |
| Village Validation Meeting | \$71,518 |
| Safeguard training of PRF staff | \$183,593 |
| production of IEC tools on safeguards | \$11,000 |
| total | \$286,993 |

Annex 1: The “Non eligibility list”

1. The following activities are prohibited under the PRFIII (ineligible or the “Non eligibility list”) in order to avoid adverse irreversible impacts on the environment and people, the following activities are explicitly excluded from funding:

- (ii) Relocation and/or demolition of any permanent houses or business.
- (iii) Use of PRF investment or subproject as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation.
- (iv) Land acquisition that affect more than 200 persons or 20 households.
- (v) New settlements or expansion of existing settlements inside “Total Protected Zone” as defined in a government decree (see actions in Table 3 of ESMF).

- (vi) Likely creation of adverse impacts on ethnic groups within the village and/or in neighboring villages or unacceptable to ethnic groups living in an ethnic homogenous village or a village of mixed ethnic composition.
- (vii) Imposing ideas and changing priorities identified by the community and endorsed at the Kumban level meeting without community consultation, prior review and clearance from the PMT.
- (viii) Damage or loss to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values.
- (ix) Resources access restriction that could not be mitigated and will result in adverse impacts on the livelihoods of ethnic groups and disadvantage peoples.
- (x) New roads, road rehabilitation, road surfacing, or track upgrading of any kind inside natural habitats and existing or proposed protected areas.
- (xi) Purchase of guns; chain saws; asbestos, dynamites, destructive hunting and fishing gears and other investments detrimental to the environment.
- (xii) Purchase of pesticides, insecticides, herbicides and other dangerous chemicals exceeding the amount required to treat efficiently the infected area. However, if pest invasion occurs, small amount of eligible and registered pesticides in Lao PDR is allowed if supplemented by additional training of farmers to ensure pesticide safe uses in line with World Bank's policies and procedures (Bank clearance is needed).
- (xiii) Forestry operations, including logging, harvesting or processing of timber and non-timber products (NTFP).
- (xiv) Unsustainable exploitation of natural resources.
- (xv) Introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.
- (xvi) Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses.
- (xvii) Production or trade in any product or activity deemed illegal under Lao PDR laws or regulations or international conventions and agreements, or subject to international bans.
- (xviii) Labor and working conditions involving harmful, exploitative, involuntary or compulsory forms of labor, forced labor⁵, child labor⁶ or significant occupational health and safety issues.

⁵ Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

⁶ Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

- (xix) Trade in any products with businesses engaged in exploitative environmental or social behavior.
- (xx) Subprojects that require full EIA will not be funded including any projects that will use or induce the use of hazardous materials (including asbestos) or any banned chemicals.

Preference list

- i) promote conservation of fish habitats
- ii) promote reforestation and re-vegetation
- iii) promote conservation of water resources
- iv) increase awareness and ownership of local community to protect and management their forest areas, wetlands, wildlife or biodiversity
- v) promote utilization of natural/organic pesticide from herb instead of chemical pesticide
- vi) promote skill development to increase income revenue

Annex 2. Integration of Safeguard Measures into PRF Process

Table 3. Integration of safeguards into PRF process*

| PRF CYCLE | CONTENTS RELATED TO SAFEGUARDS | REPORTING | RESPONSABILITIES |
|---|--|---|---|
| (1) Introduction of PRF concept and training of PRF staff, local authorities, volunteers, and communities | Knowledge on key issues and required mitigation measures (non-eligibility list, Social and environmental guideline including Framework for Resettlement and Acquisition of Land and Assets (FRALA), compensation/Voluntary contribution rules, mitigation of impact on physical resources and inclusion of vulnerable ethnic groups). | Meeting and training form (PDKV_MT); Meeting reporting Form. Training evaluation form. | PRF Community Development (CD) & Engineering Unit (EU) National level |
| Training of Kumban facilitators and PRF staff | Knowledge on preference list and its associated benefits as well as key issues and required mitigation measures (non-eligibility list, ESMF, CRPF and EGDF including FRALA, compensation / Voluntary contribution rules, mitigation of impact on physical resources and inclusion of vulnerable ethnic groups) and details on mechanism, methodology, forms. | | PRF CD & EU Provincial level |
| Training of Kumban Representatives and Kumban Teams | Training on preference list ESMF, CRPF and EGDF (FRALA, compensation system, physical cultural resources, inclusion of vulnerable ethnic groups), Gender and Ethnic Groups sensitization (Facilitated by the PRF), sustainable Natural Resources Management (NRM) and type of prohibited activities. | | PRF CD & EU District level |
| (2) Village Needs Prioritization Assessment (VNPA) | Review the ESMF, CRPF and EGDF including FRALA, compensation / Voluntary contribution rules, mitigation of impact on physical resources and inclusion of vulnerable ethnic groups), presentation of the non-eligibility list; Pre-checking on the feasibility of the sub-projects selected by the community regards to environment and social safeguard. | Meeting and training form (PDKV_MT); Meeting reporting form (Number of potential safeguards issues identified). | PRF EU & CD District level |
| (3) Participatory Planning Meeting at Kumban level (4 years plan validated on yearly basis) | Review types of prohibited activities, Social and Environmental Guidelines (FRALA, compensation system, physical cultural resources, and inclusion of vulnerable groups). Selection of infrastructures proposal (for bridges, irrigation schemes, and gravity-fed water system that required a longer design | Meeting and training form (PDKV_MT); Attendance sheet (number of Kumban Feedback & FRC member at the Kumban level); | PRF EU & CD District level |

| | | | |
|--|--|--|--|
| | period as water need to be measured during both the rainy and dry season, the sub-project will only include the survey activities) | Kumban Sub-project Proposal Outline (KSPPO). | |
| (4) Design and preparation of sub-projects | <p>Conduct survey and simple environmental and / or physical cultural resources assessments (when necessary); Environmental checklist; include Physical cultural resources checklist (spirit forests, temples, graveyards); Provide generic dam safety measures designed; Documentation (in the 'Contribution and Compensation Form') of resettlement, land acquisition and other voluntary contribution (if any) and of the calculation of the compensation paid by communities.</p> | <p>Training Sub-project proposal form (TSPPF); Infrastructure Sub-project Proposal Form (ISPPF); Contribution and compensation form; Land Acquisition and Resettlement Report Form; Simple Environmental Assessment Form; Simple Physical Cultural Resources Assessment Form;</p> <p>Sub-projects' design reflects villagers' needs and priorities, is feasible and respects ESMF, CRPF and EGDF</p> | PRF EU & CD district level (assisted by PRF provincial level for key step) |
| (5) District Meeting to endorse Kumban integrated development plan | <p>Presentation of designs: budgets, villagers' contribution and compensation, land acquisition and resettlement reports (if any), procurement methodologies, disbursement schedule, Operation and maintenance plan, environmental and social checklists (detailed assessments if necessary);</p> <p>Discussion and confirmation of the size of the infrastructures; Discussion and confirmation of community contribution and compensation arrangements.</p> <p>Verification by PRF technical advisors that the final design respect PRF standards; Review of the number of people affected by resettlement of land acquisition (if any).</p> <p>Review potential issues related to safeguard by provincial and district representatives.</p> | <p>Meeting and training form (PDKV_MT).</p> <p>Meeting and training form (PDKV_MT); District sub-projects Proposal Outline (DSPPO).</p> <p>Final options retained for the design of the pre-selected subprojects presented, discussed and approved.</p> <p>Identification of the number of potential breath of safeguards</p> | PRF CD & EU National level, provincial and district level |
| | <p>Presentation of designs: budgets, villagers' contribution and compensation, land acquisition and resettlement reports (if any), procurement methodologies, disbursement schedule, Operation and maintenance plan, environmental and social checklists (detailed</p> | <p>Meeting and training form (PDKV_MT).</p> <p>Final options retained for the design of the pre-</p> | PRF CD & EU National level |

| | | | |
|---|---|---|--|
| (6) Implementation of sub-projects | <p>assessments if necessary); Discussion and confirmation of the size of the infrastructures; Discussion and confirmation of community contribution and compensation arrangements.</p> <p>Verification by PRF technical advisors that the final design respect PRF standards; Review of the number of people affected by resettlement of land acquisition (if any).</p> | selected subprojects presented, discussed and approved. | |
| (7) Training of Kumban and Village Implementation and Maintenance Teams (Construction techniques and Supervision) | <p>Regulations and rules linked to each type of infrastructure; Training on Final inspection process; Regular inspections of the infrastructures sub-project during the implementation stage.</p> | <p>Meeting and training form (PDKV_MT); Training evaluation form.</p> | PRF EU & CD District level |
| (8) Subprojects monitoring and inspection by Quality Control Teams | <p>Visit of subprojects sites; Final technical inspection.</p> | Final Inspection Report form (FIR). | PRF EU & CD District level for regular visit. PRF EU&CD at National, Provincial and district level for final technical inspection |
| (9) Official transfer of infrastructures to communities | | | |
| (10) Validation of the integrated development plan (Step 3) and evaluation of the activities of the previous year | <p>Discussions about overall performance (including respect of some of the key development indicators); Presentation by District Feedback Resolution Committee of issues arisen and actions taken so far;</p> | <p>Meeting and training Form (PDKV_MT). Review of the safeguards issues met during the sub-projects implementation (if any)</p> | PRF CD & EU District level |
| Independent Assessments | <p>Independent technical assessments and audits are carried regularly. These assessments include a PRF Technical Assessment.</p> | <p>Assessment report with Identification of adverse environment impact and mitigation measures in place, activities promoting environmental protection during implementation.</p> | External consultants |

**It has been further refined and updated in the PRFII operations manual.*

Annex 3 – Subproject Proposal and Monitoring Forms

1. This annex provides a sample subproject proposal and monitoring forms to guide proper screening and documentation. A guideline for simple impact assessment of subprojects is provided in Annex 4.

A3.1 Sub-project proposal form

| | |
|---|---|
| a) <u>Impact on Environment</u> | Assessment of Impact on Environment |
| Changes are likely to occur in water use and/or water availability | <input type="checkbox"/> (YES – Tick ✓) |
| Protected area or area proposed for protection by the Government | <input type="checkbox"/> (YES – Tick ✓) |
| Involve sustainable harvest/use of NTFP, fishes, and other aquatic life, etc. | <input type="checkbox"/> (YES – Tick ✓) |
| Promote conservation of natural resources (water, forest, soil, biodiversity) and habitats | <input type="checkbox"/> (YES – Tick ✓) |
| Promote cleanliness, hygienic, road safety, and/or public health | <input type="checkbox"/> (YES – Tick ✓) |
| Presence of Unexploded Ordinances (UXOs)_____ | <input type="checkbox"/> (YES – Tick ✓) |
| Presence of Archaeological material, Stupa, high aesthetic and recreation value | <input type="checkbox"/> (YES – Tick ✓) |
| Others Specify_____ | <input type="checkbox"/> (YES – Tick ✓) |
| b) <u>Impact on pest management</u> | Assessment of Impact on pesticides |
| Procurement of pesticides | <input type="checkbox"/> (YES – Tick ✓) |
| Training on safe use of pesticides | <input type="checkbox"/> (YES - Tick ✓) |
| Promoting non-chemical uses | <input type="checkbox"/> (YES - Tick ✓) |
| Others Specify_____ | <input type="checkbox"/> (YES - Tick ✓) |
| c) <u>Land Acquisition and Resettlement</u> | Specific meeting and use of the Contribution and Compensation Form |
| Subproject involving voluntary contributions | <input type="checkbox"/> (YES - Tick ✓) |
| | Submission of a Land Acquisition and Resettlement Report |
| Subproject involving the voluntary resettlement of more than 100 persons | <input type="checkbox"/> (YES - Tick ✓) |
| Subproject involving the voluntary contribution by at least one individual of more than 10% of their holdings | <input type="checkbox"/> (YES - Tick ✓) |
| Subproject involving displacement of more than 5 households or structures | <input type="checkbox"/> (YES - Tick ✓) |

A3.2 – Environmental Monitoring and Inspection Form (Template)

**Poverty Reduction Fund
Environmental Evaluation Control sheet - small sub-projects**

1. Project title / Activity Code:

Name / Location of Village:

District / province:

2. Names, Address and phone number of VIT:

3. Project description:

4. Expected Benefits:

5. Number of Beneficiaries:


6. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off site features necessary for its implementation. Attach additional sheets if necessary.)

7. Project materials and process: (Describe materials used in project and methodology);

8. Project expected duration (Start / completion dates):

9. Project location/description

Add / draw map of location including potential environmental hazards:



10. Describe the projects surroundings land-uses including potential environmental hazards:

11. Environmental factors Potentially Affected:

The environmental factors graded below would be potentially affected by this sub-project:

X – No impacts

Y – Mild Impacts

Z – Significant Impacts

| | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Physical and Cultural Resources | <input type="checkbox"/> Geology /Soils and Mineral Resources | <input type="checkbox"/> Hazardous materials / Chemical pesticides and / or Fertilizers |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / housing | <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> UXO |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Community conservation/National Conservation | <input type="checkbox"/> Other...(Describe)..... |

ANY PROJECT IN or within 10 Kilometers of a National Biodiversity Protection Area requires an Environmental Management and Mitigation Plan at the planning stage.

12. For any Y or Z classifications, describe mitigation measures below and complete the relevant ECOP Table 4.1 – 4.5 under A4.2. Attach additional sheets if necessary:

13. Discussion with Contractors about Contractation's contents(Circle on Yes or No)

Yes

No

Date of discussion:

Describe other issues on discussion:

I. Mid-term Evaluation

14. Mid-term evaluation (includes date / participants and details of any environmental issues and mitigation)

| | Environment checklist | Yes / No | Remarks |
|----|--|-----------------|----------------|
| 1 | Compliance with the planned mitigation measures and environmental obligations | | |
| 2 | Occurrence of notable environmental pollution such as dust, water pollution, noise | | |
| 3 | Encroachment to natural habitats and physical cultural properties | | |
| 4 | Improper operation and maintenance of construction equipment, fuels and oils | | |
| 5 | Occurrence of complaints | | |
| 6 | Site cleaning while site under construction | | |
| 7 | Removal of temporary access road upon completion | | |
| | Disposal of construction wastes | | |
| 8 | Erosion prevention measures for used borrow pits | | |
| 9 | removal of temporary water flows diversions or blockages upon completion | | |
| | Removal of construction camps upon completion | | |
| | Safety of dams/weirs measures | | |
| 10 | UXO clearance certification | | |

Signed of

 For PRF
 For Contractor

 Head off village

II. Final evaluation

15. Final evaluation: (includes date / participants and details of any environmental issues and mitigation)

| | Environment checklist | Yes / No | Remarks |
|----|--|-----------------|----------------|
| 1 | Compliance with the planned mitigation measures and environmental obligations | | |
| 2 | Occurrence of notable environmental pollution such as dust, water pollution, noise | | |
| 3 | Encroachment to natural habitats and physical cultural properties | | |
| 4 | Improper operation and maintenance of construction equipment, fuels and oils | | |
| 5 | Occurrence of complaints | | |
| 6 | Site cleaning upon completion | | |
| 7 | Disposal of construction wastes | | |
| 8 | Removal of temporal access roads upon completion | | |
| 9 | Erosion prevention measures for used borrow pits | | |
| 10 | Removal of temporary water flows' diversions or blockages upon completion | | |
| 11 | Removal of construction camps upon completion | | |
| 12 | UXO clearance certification | | |

Signed of

 For PRF
 For Contractor

 Head off village

Annex 4. Simple Mitigation Measures for Small-Scale Sub-projects

1. This annex provides technical guidelines for a simple impact assessment and mitigation measures of subprojects. Section A4.1 provides environmental code of practices for the civil works that can identified during appraisal for the subproject identification (location), construction, and operation phases. Section A4.2 provides guidance for a larger civil works.

A4.1 Environmental code of practice (ECOP)

Table 4.1 ECOP for Community/Village Roads including small bridge, culvert, track improvement, etc.

| Key issues to consider | Mitigation measures | Remarks |
|---|--|---------|
| Location | | |
| - Conservation area | No animal killing | |
| | No land occupation | |
| | No forest cutting | |
| | Solid waste Management | |
| | No camping | |
| - Flood area | Provide adequate drainage system | |
| | Include appropriate measure to mitigate flood impacts | |
| - Mountainous area | Design slope should be less than 17% | |
| | Side drain | |
| | Slop protection | |
| | Guard rail (simple type) | |
| - Community area | Speed limit sign | |
| | Dust and noise control | |
| | timely public information on works duration and schedule | |
| - Land property | Minute of meeting on conflict resolution and attached the land certificate | |
| | Cultural area, history, etc. | |
| -Fish spawning areas and migration routes | Avoid negative impacts such as disposal of spoil and tree uprooting which could silt up water courses Ensure optimal design. | |
| Construction phase | | |
| - Borrow pit | construction materials should be obtained from certified quarries; | |
| | | |
| | | |
| - Erosion risk | Design/provide adequate slop protection | |
| | Provide maintenance procedure | |
| - Solid waste | Provide appropriate waste collection and disposal | |
| - Waste Oil | Do not allow to drain into soil and river | |
| - Camp | Secure agreement with local community | |
| | Provide water supply, mosquito net, and adequate sanitation (toilet, washing space, | |

| | | |
|--|--|--|
| | etc.), and good housekeeping to prevent rodents, insect, etc. | |
| - Construction material storage | Storage in proper area toxic wastes and materials will be stored in safe place. | |
| Operation phase | | |
| Public health, road safety, and other social negative impacts in the village | | |
| - Speed control | Install measures to control speed limit (sign, bumper, etc.), education campaign | |
| - Dust control | Control speed limit, periodic watering, plant appropriate trees, surfacing | |
| - Accident | Awareness training in cooperation with the Police Office | |
| | | |

Table 4.2 ECOP for Community/Village Water Supply (<1,000 users), including Dug well, Drilled well, Gravity Flow System

| Subproject Issues | Mitigation Measures | Remarks |
|---|---|---------|
| Location | | |
| -Land property | Minute of meeting on conflict resolution and attached the land certificate | |
| -Protected area | Approved by concern sector | |
| -Flooding area | Detail study and proper design | |
| -Water source protection | Set up regulation and principle | |
| -Community zone | Establish the water user regulation | |
| -Close to borrow pit/quarry, waste disposal sites | Water testing | |
| Construction | | |
| -Solid waste generation | Provide appropriate waste collection and disposal | |
| -Waste Oil | Do not allow to drain into soil and river | |
| -Camp | Secure agreement with local community | |
| | Provide water supply, mosquito net, and adequate sanitation (toilet, washing space, etc.), and good housekeeping to prevent rodents, insect, etc. | |
| -Storage of construction material | Storage in proper area; toxic wastes and materials will be stored in safe place Storage in proper area | |
| Operation | | |
| -possible contamination of water | Establish measure to protect quantity and quality of water sources. Fencing water tape | |

Table 4.3 ECOP for Village Irrigation System (<150 ha), including weir, irrigation channels, repaired weir, small water storage (used primarily to feed animals)

| Issues to consider | Actions | |
|---------------------------------------|---|--|
| Location | | |
| Down stream | | |
| - Impact water user | Community consultation (resolution) | |
| Impacts on water flow | Consider including generic dam safety measures into design | |
| - Fertilizer | Data from community | |
| | Introduction to community | |
| - Erosion | Proper design | |
| - Temporary Block fish passage | Properly designed screens and ladders in consultation with community | |
| Up steam | | |
| - Fish protection | Establish the fish protection area; Integrate fish passage and screening activities into subprojects implementation | |
| - Water recourse protection | Set up management regulation | |
| Construction phase | | |
| - Borrow pit | construction materials should be obtained from certified quarries | |
| | | |
| | | |
| - Erosion location | Design the suitable slop protection | |
| | Provide Maintenance procedure | |
| - Solid waste | Allocate suitable area for waste. | |
| | Separate recyclable waste | |
| - Wasted lubrication | Do not allow to drain into soil and river | |
| - Camp | Let community allocate | |
| | Provide sanitation, waste water and allocate the soiled waste site | |
| - Construction material storage | Store safely in an approved area | |
| Operation | | |
| - Potential increase use of pesticide | Provide training on safe use of pesticides | |
| | Promote the use of no-chemical agriculture | |

Table 4.4 ECOP Buildings (including school, market, health center, community hall, sanitary facilities)

| Subproject issues | Mitigation measure | Remarks |
|-------------------|----------------------|---------|
| - Land property | Land use certificate | |

| | | |
|---------------------------------|---|--|
| Water system | Detail study and proper design | |
| - Drainage system | Check drainage systems at planning stage | |
| - Location | Check, document and mitigate for any geo-specific environmental issue | |
| - Waste materials | Dispose of all waste in line with GoL regulations | |
| - Safety | Provide H&S training based upon plans, all site workers to be provided with PPE | |
| Operation | | |
| - Waste management | Set up committee | |
| | Allocate suitable area for waste | |
| | Separate recyclable waste | |
| | Set up rules and regulations | |
| - Water system, drainage system | Detail study and proper design to protect rivers and underground water | |

Table 4.6: ECOP - Physical Cultural Resources (specifically chance find)

| Subproject issues | Mitigation measure | Remarks |
|---|---|---|
| Chance find Physical Cultural resources | <p>Immediate reporting to the World Bank Group and the relevant Government departments.</p> <p>In case of potential damage to chance finds, stop work in the area immediately and proceed in line with the relevant national laws and WB OP 4.11.</p> | See details on procedures listed in Annex 5, section 5.2. |

The following ECoP is provided for use by Nam Saat and the suppliers of latrines in the project areas.

Table 4.7: Latrine system installations

The following ECoP is provided for use by Nam Saat and the suppliers of latrines in the project areas.

| Subproject issues | Mitigation measures | Remarks |
|------------------------------------|--|---------|
| Location | | |
| -Land property | Minute of meeting on conflict resolution and attach the land certificate | |
| -water source protection | Follow Production Manual stipulations esp. latrines to be 15 m from water sources. | |
| Construction | | |
| -Quality | - Follow Production Manual procedures for production and installation of systems | |
| -Solid waste generation | Appropriate waste collection and disposal (site inspections demonstrate this is happening) | |
| -Storage of construction materials | Store in suitable place for the material type with special attention paid to any HazMats materials or waste | |
| -Camp (if required) | Secure prior agreement with local community Provide water supply, mosquito net and adequate sanitation (toilet, washing space etc.) and good house-keeping to prevent rodents and other disease vectors | |
| Operation | | |
| -Possible contamination of water | Establish measure to protect quantity and quality of water sources Ensure 15 m standard for distance from supply water is observed Fencing and segregation if required. | |
| -Emptying systems | Ensure emptying of systems after 8 – 10 years is done with reputable contractor and in compliance with disposal best practices and Lao law. | |

Table 4.8: Quality Checklist – Weir Construction

Checklists are completed at milestones before previous works is covered up. Several checklists may be grouped together and completed at the same time.

| Inspection and test plan checklist for: Weir Construction – Design & Procurement | | | | |
|---|---|--------------------------------------|---|--------------------------------------|
| Contract Number: Sub-Project: | | Location: | | Checklist Number: 1 |
| Work | Items | Ref | Initialed /OK | Comments |
| 1. Sub-Project Design | Standard Forms Section 1 (Survey – 8 forms), Section 2 (Design – 5 forms) complete. Checked by Engineer on Page 1 & 2 of SF. | Standard Forms | | |
| | Standard Specification and Drawings stamped by Line Ministry. | | | |
| | If standard drawings or specifications are modified, or special drawings and specifications prepared, then the modified/special drawings are approved by PRF Engineering Division manager. | | | |
| | Design and Specification checked by Provincial Engineer, and meets the Engineering and Technical Standards of PRF. | Engineering and Technical Guidelines | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 2. Preparation of Bid-Documents | Final check of bid documents by Engineer. All the dimensions are correct. Construction options are correct. BOQ matches drawing details. All amendments additions and agreements made during Project Proposal are reflected in bid documents. | | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 3. Contract Award | Standard Forms Section 3.2 to 3.5 completed by Engineer (Bidding Technical Evaluation). Checked by Engineer on Page 2 & 3 of SF. | Standard Forms | | |
| I have carried out the Inspection and verify the above items meet the Procurement Requirements in the Standard Forms of the PRF. | | | Name: Signature: Date: | |

Checked by:

Name:

Signature:

Date:

| Inspection and test plan checklist for: Weir Construction – site access, layout and materials. | | | | |
|---|---|------------------|---------------------------------------|------------------------------------|
| Contract Number: Sub-Project: | | Location: | | Checklist Number: 2 |
| Work | Items | Ref | Initialed /OK | Comments |
| 4. Site Access | Contractor is provided access to site by local authorities. | | | |
| | Location for material store and workers accommodation agreed | | | |
| | Water and Sanitation Facilities available for construction Workers (i.e. location of temporary latrines agreed, villagers agree to provide access to drinking water.) | | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 5. Site Inspection and layout | Weir location and layout agreed by Engineer. Bench mark is set and final levels agreed. | Spec. | | |
| | The height of the floor of the Weir is set out and agreed by Engineer. | Spec. | | |
| | Trial pits are excavated to determine the required depth of foundation. | Spec. | | |
| | Any necessary diversions or temporary dams agreed by Engineer. | Spec. | | |
| | Contractor has mobilized the equipment required as listed in contract. | Contract. | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 6. Materials | Course sand 1 to 5 mm. | Spec. | | |
| | Fine Sand free of clay particles. | Spec. | | |
| | Gravel 1 x2 cm (< 2.5mm) | Spec. | | |
| | Stone 15x20 cm is hard. | | | |
| | Cement (PORTLAND for concrete works) | Spec. | | |
| | Water for concrete mixing (contractors responsibility) is clean and free clay particles | Spec. | | |
| | Steel – full specified dimensions 6 mm = 0.222 Kg/m 10 mm = 0.617 Kg/m 12 mm = 0.888 Kg/m | Spec. | | |
| I have carried out the Inspection and verify the above items meet the Procurement Requirements in the Standard Forms of the PRF. | | | Name: Signature: Date: | |

PHOTOGRAPHS: 1. Site Overview

Checked by:

Name:

Signature:

Date:

| Inspection and test plan checklist for: Weir Construction – Excavation, Foundation, Floor & Side Walls. | | | | |
|---|--|------------------|-------------------|-------------------------------|
| Contract Number: Sub-Project: | | Location: | | Checklist Number: 3 |
| Work | Items | Ref | Initialed /OK | Comments |
| 7. Excavation | Weir floor height agreed by Engineer | Spec | | |
| | Site excavated to required depth. The bottom of the excavation is checked by Engineer to make sure had undisturbed soil has been reached. | Spec | | |
| | Trenches for cutoff walls excavated (5 trenches) | Drawings | | |
| | All layout and dimensions rechecked by engineer. | Drawings | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: | |
| | | | Signature: | |
| | | | Date: | |
| 8. Foundation and floor | Option 1: Foundation of weir constructed from stone in cement mortar with reinforced concrete floor. Option 2: Full structure from reinforced Concrete. | Drawings | | |
| | Option 1: One layer of reinforcement in floor Option 2: Two layers of reinforcement in floor | Drawings | | |
| | Option 1 & 2: Front and rear cutoff walls are RC with two layers of reinforcement. | Drawings | | |
| | Option 1: Three internal cutoff walls are from stone and mortar (unreinforced). Option 2: Three internal cutoff walls are from RC with two layers of reinforcement. | Drawings | | |
| | All reinforcement DB12 @ 200mm mesh. | Drawings | | |
| | Front and rear cutoff walls constructed to depth shown on drawings. No design modifications allowed without approval from PRF Irrigation Engineer. | Drawings | | |
| | Concrete floor should be 1:3:5 and have a minimum thickness of 10 cm. Compacted with vibrator. | Drawings | | |
| | CAUTION: Concrete mix inspection, vibrating and sampling should be done before casting. | Spec. | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: | |
| | | | Signature: | |
| | | | Date: | |

PHOTOGRAPHS: 1. Site Layout, 2. Excavation preparation, Foundation Steel.

Checked by:

Name:

Signature:

Date:

| Inspection and test plan checklist for: Weir Construction – Gate, & Backfill. | | | | |
|--|--|-----------|------------------------------|---------------------------|
| Contract Number: Sub-Project: | | Location: | | Checklist Number: 4 |
| 9. Sidewalls | Option 1 and Option 2 are both RC, with two layers of reinforcement. | Drawings | | |
| | All reinforcement DB12 @ 200mm mesh. | Drawings | | |
| | Seepage walls constructed over cutoff | Drawings | | |
| | Sidewalls keyed into sides of canal as shown on drawing. | Drawings | | |
| | Mix 1:2:4 by volume. Concrete compacted using vibrator. | Spec. | | |
| | Formwork kept in place for 4 days, and concrete kept moist for 3 additional days. | Spec. | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| Work | Items | Ref | Initialed /OK | Comments |
| 10. Gate Construction | Water resistant hardwood timber gate. | Drawings | | |
| | Steel U at edges of RC groves for gate. | Drawings | | |
| | Double gate installed. | Drawings | | |
| | Mix 1:2:4 by volume. Concrete compacted using vibrator. | Spec. | | |
| | Formwork kept in place for 4 days, and concrete kept moist for 3 additional days. | Spec. | | |
| | Location of gate checked and approved by Engineer. | Drawings | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| Work | Items | Ref | Initialed /OK | Comments |
| 11. Floor Block | Location, size and shape of floor blocks checked and approved by Engineer. | Drawings | | |
| | RC and formwork inspected before casting | Spec. | | |
| | Mix 1:2:4 by volume. Concrete compacted using vibrator. | Drawings | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 12. Backfill | Soil for backfill checked and approved by Engineer. Soil compacted in layers < 100 mm around Weir and behind wing walls. | Drawings | | |
| | Fill level is higher than wing walls | Spec. | | |
| | Temporary drainage dug by contractor during construction are refilled and compacted. | Spec. | | |
| | Hand compaction tool or mechanical compactor. | Drawings | | |
| I have carried out the Inspection and verify the above items meet the Procurement Requirements in the Standard Forms of the PRF. | | | Name: Signature: Date: | |

PHOTOGRAPHS: 1. Wing wall Steel, 2. Gate steel, 3. Compaction Equipment.

Checked by:

Name:

Signature:

Date:

| Inspection and test plan checklist for: Weir Construction – Finishing, Handover & Maintenance | | | | |
|---|---|-----------|------------------------------|---------------------------|
| Contract Number: Sub-Project: | | Location: | | Checklist Number: 5 |
| Work | Items | Ref | Initialed /OK | Comments |
| 13. Finishing | Site cleaned of construction debris. | Spec | | |
| | All construction equipment and materials removed from site. | Spec | | |
| | Defects list issued to VIMT and Contractor | Spec | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 14. Handover | All defects identified at finishing have been repaired by contractor | Spec. | | |
| | Any agreements for completion of additional works agreed with VIMT or contractor in writing. | | | |
| | VIMT sign for completion of all works | | | |
| I have carried out the Inspection and verify the above items meet the Engineering and Technical requirements of the PRF. | | | Name: Signature: Date: | |
| 15. Maintenance | Maintenance manual (for road) given to VIMT. | | | |
| | Operation and Maintenance rules set and agreed by community themselves. O&M team established and checked by Engineer. | | | |
| I have carried out the Inspection and verify the above items meet the Procurement Requirements in the Standard Forms of the PRF. | | | Name: Signature: Date: | |

PHOTOGRAPHS: 1. Site Photographs of completed Weir.

Checked by:

Name:

Signature:

Date:

Annex 5. Good Engineering Practices and Some Mitigation Measures

Good engineering and housekeeping practices

The practice of housekeeping involves proper storage, use, cleanup, and disposal of the various materials used during construction for human and environmental safety. The following good housekeeping practices are required for all M-IWRM-funded activities:

DO:

1. Limited working hour during the day time, especially in residential areas, and control driving speed;
2. Minimize earth excavation and appropriate disposal of spoil;
3. Minimize opening of new borrow pits and ensure proper closure;
4. Minimize traffic congestion, dust and noise generation;
5. Proper maintenance of construction equipment and vehicles;
6. Provide appropriate safety sign (day and night) and closely inform local residents;
7. Avoid spill of used oil and other toxic materials, including safe transportation and storage;
8. Apply good housekeeping in the construction and/or storage sites to ensure safety of workers and peoples (Gather up and remove debris to keep the work site orderly and safe; Plan and implement adequate disposal of scrap, waste and surplus materials; Keep the work area and all equipment tidy. Designate areas for waste materials and provide containers; Keep stairways, passageways and ladders free of material, supplies and obstructions; Secure loose or light material that is stores on roofs or open floors; Keep materials at least 2m (5ft) from openings, roof edges, excavations or trenches; Remove or bend over nails protruding from lumber; Keep hoses, power cords, welding leads, etc. from laying in heavily traveled walkways or areas; Ensure structural openings are covered/protected adequately; Provide the appropriate fire extinguishers for the materials found on-site. Keep fire extinguisher stations clear and accessible; etc.)
9. Ensure access to clean water and latrines by workers and provide mosquito net.
10. Avoid social/cultural conflict between workers and local population.

DO NOT:

1. Do not permit rubbish to fall freely from any locations of the project and/or access by animals (dogs, cats, pigs, etc.). Use appropriate containers.
2. Do not throw tools or other materials.
3. Do not raise or lower any tool or equipment by its own cable or supply hose.
4. Use grounding straps equipped with clamps on containers to prevent static electricity buildup.
5. Do not allow hunting of animals by workers in protected areas.

SPECIAL NOTE ON FLAMMABLE/EXPLOSIVE MATERIALS:

1. Store flammable or explosive materials such as gasoline, oil and cleaning agents apart from other materials.
2. Keep flammable and explosive materials in proper containers with contents clearly marked.
3. Dispose of greasy, oily rags and other flammable materials in approved containers.
4. Store full barrels in an upright position.
5. Store empty barrels separately.
6. Post signs prohibiting smoking, open flames and other ignition sources in areas where flammable and explosive materials are stored or used.
7. Store and chain all compressed gas cylinders in an upright position.
8. Mark empty cylinders and store them separately from full or partially full cylinders.
9. Ventilate all storage areas properly.
10. Ensure that all electric fixtures and switches are explosion proof where flammable materials are stored.

5.2 The following “*chance find*” procedures to be included in all civil works contract:

If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the National Culture Administration take over;
- Notify the supervisory Project Environmental Officer and Project Engineer who in turn will notify the responsible local authorities and the Culture Department of Province immediately (within 24 hours or less);
- Responsible local authorities and the Culture Department of Province would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of National Culture Administration. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
- Decisions on how to handle the finding shall be taken by the responsible authorities and Culture Department of Province. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
- Construction work could resume only after permission is given from the responsible local authorities or Culture Department of Province concerning safeguard of the heritage.

(a) Environmental Effects and Mitigation Measures for Road Subprojects

| Activity | Potential Effects | Possible Mitigation Measures |
|--|---|---|
| Planning, Design and Land Acquisition | | |
| Setting Design Standards | If standards are too high excessive earthworks can cause other effects. (See activities under “3 Construction”) | Set standards appropriate for class of road, traffic and terrain, |
| Design – General | Land requirements affect local people | Minimize land acquisition and resettlement in selecting alignment. |
| | Existing buildings, possibly constructed within the subproject site could be affected | Attempt to negotiate a fair design or compensation solution, which does not cause undue hardship. |
| | Work on roads, bridges and culverts can affect existing trees. | Minimize impact on trees and replant when work is completed. |
| | Access roads and bridges can have impacts on wildlife, virgin forest areas, | Avoid such areas as much as possible |

| | | |
|-------------------|---|--|
| | cultural relics etc. | in the design. |
| | Roads, bridges and culverts can cause an increase in traffic speeds and accidents affecting road users, local people and animals. | Ensure a safe design including speed restriction and warning signs, to control livestock as necessary and where possible discuss possible designs with local people. |
| Design – Drainage | Can alter hydrological regimes and affect flooding and existing irrigation systems. | Ensure culvert, bridge and road are suitably designed to minimize effects on hydrology. |
| | Can cause negative impacts of concentrating water and increasing scour and soil erosion. | Ensure design improves the drainage system by rectifying any existing problems such as scour of adjacent lands, which should be checked for during the monsoons. Include tree planting in design where possible. |

Construction Preparation

| | | |
|--|--|--|
| Mobilizing equipment | Air and noise pollution for any nearby settlements. | Control contractors' vehicle speeds and noise. |
| Mobilizing workforce | The introduction of an outside workforce can have a negative impact on the health and social well-being of local people. | Contractor employs local people where possible. |
| | Possible solution cause by domestic sewage and solid wastes. | Contractor installs and maintains a septic tank system and a system of disposing of solid wastes. |
| | Possible excessive or uncontrolled use of fuel wood in labour camp. | Contractor supplies alternative fuel for cooking and heating in the labour camp. |
| | Possible development of labour camp into a permanent settlement. | Contractor removes the labour camp at the completion of the contract. |
| | Possible hunting of wildlife for food. | Prohibit poaching and make contractor responsible for his workers. |
| Establishment and Operation of Base Camp and Workshop. | Air and noise pollution for any nearby settlements. | Locate base camp and workshop away from any residential settlements. |
| | Possible surface water and ground water contamination by oil, grease, and fuel in yards. | Collect and recycle lubricants. Avoid spills and have a ditch around the area with a setting pond, oil trap at the outlet. |
| | Possible ground and water contamination by bitumen or solvents. | Avoid spills but surround area with a ditch with a settling pond/oil trap at the outlet. |
| | Cutting down trees to use as fuel for heating bitumen and stones. | The contractor does not use wood for heating during the processing of any materials. |
| Operating a borrow Pit. | Noise, vibration and dust could affect nearby settlements or other sensitive areas. | Locate plant away from any residential or other environmentally sensitive areas such as hospitals, intensive livestock production areas or wildlife breeding areas. Also avoid farmlands |

| | | |
|--|---|---|
| | | or forests as much as possible. Restrict work to daylight hours and limit the size and frequency of blasting. |
| | Changing the riverbed could affect local fishing areas. | Discuss proposed locations with local people/fishermen and insist contractor obtains their approval. |

Construction

| | | |
|------------------------------------|--|---|
| | Possible noise and vibration, especially if earthworks involve blasting, could affect nearby settlements or other sensitive areas. | Restrict work to daylight hours and limit the size and frequency of any blasting near settlements (especially hospitals) near intensive livestock production and wildlife breeding areas. |
| | Historical remains or cultural items could be uncovered. | Contractor to ensure all such finds are reported and discussed with representatives of the local people. |
| Drainage Improvement Works | Works can have temporary effects on irrigation or washing/drinking water supplies. | Ensure contractor takes into account local water uses. Temporary drainage may have to be constructed. |
| | Effect on traffic and pedestrian safety. | The contractor uses safe traffic control as necessary and causes the minimum possible disruption to all traffic. |
| Bituminous Surfacing. | Possible pollution of waterways or groundwater by bituminous products or solvates. | Strict control to avoid spills or clean up immediately after and prohibit work in rain. |
| Transport of Subproject Materials. | Air and Noise pollution for any nearby settlements and damage to existing roads. | Control contractor's vehicles speeds, noise and weight of loads and control dust and flying debris by covering loads or wetting material if necessary. Construct temporary roads if necessary. Use locally available construction material wherever possible to minimize transport distances. |

(b) Environmental Effects and Mitigation Measures for Public Buildings (Markets, schools, health centers etc.)

| Activity | Potential Effects | Possible Mitigation Measures |
|-----------------------------------|--|---|
| Before construction starts | | |
| Brick moulding | Disturbance of habitats Loss of land Land degradation Air pollution from dust Pressure on existing water resources | Reallocation of farming land Possible use of cement block as an alternative Provision of boreholes |
| Brick curing | Deforestation Pollution from smoke | Afforestation (tree planting) Quotas per construction (school, dispensary, markets etc.) community based woodlots |

Construction

| | | |
|----------------------|--|--|
| Civil works building | Noise and air pollution Pressure on existing water resources Creation of borrow pits | Establishment of additional possible water sources Landscaping |
| Carpentry | Deforestation Noise | The provision of timber by the community should be approved by the local authorities Use of alternative materials (bamboo, steel, reinforced concrete) Afforestation (tree planting) Quotas per construction (school, dispensary, markets etc.) community based woodlots |
| Labourers | Faecal / other wastes Injuries and avoidable accidents | Provision of latrines Select companies with strong HSE records Promote HSE planning, policy and full use of PPE |

Operations

| | | |
|--------------------------------|--|---|
| Provision of desks / furniture | Deforestation | The provision of timber by the community should be approved by the local authorities Use of alternative materials (bamboo, steel) Afforestation (tree planting) Quotas per construction (school, dispensary, markets etc.) community based woodlots |
| Disposal of medical wastes | Contamination and pollution in surrounding environment | Include incinerator in health centre subproject proposal |

Environmental Effects and Mitigation Measures for Boreholes

| Activity | Potential Effects | Possible Mitigation Measures |
|-------------------|--|---|
| Sitting | Loss of land Land degradation Nuisance and aesthetic impacts | Consultation with communities Reallocation of land Landscaping (planting of trees / crops) |
| Drilling | Disturbance of stream channels, aquatic fauna Social disruption by construction workers Construction hazards New diseases (STD) | Re-vegetation Establish settlement location for workers out of village to mitigate social interactions |
| Pump installation | Ground and surface water contamination by oil, grease etc. | Experienced drillers only Enforcing standard safety procedures |
| Civil works | Waste water Solid wastes | Proper disposal Drainage, soaking pits |
| Operation | Uncovered/unused boreholes may be breeding areas for water borne diseases (worms, mosquitoes etc.) Water may be contaminated during transport or storage Spills and leakage contamination of water Reduction in water quality because of decomposed matter Over pumping of ground water causing a lowering of ground water table Disruption to downstream hydrology | Incorporate health and sanitation Education programme Ensure adequate provision for the operation management and maintenance of facilities (Including proper staff and community training) |

(c) Potential Negative Impacts and Mitigating Measures for small-scale Irrigation Schemes

| Potential Negative Impacts | Mitigating Measures |
|----------------------------|--|
| Soil Erosion | Proper design and layout of furrows or field avoiding too steep a gradient. Land Levelling Design of terraces on hillsides minimizing surface erosion hazard. Maintain vegetation Cover |
| Water logging of soils | Regulation of water application to avoid over-watering. Installation and maintenance of adequate drainage system. Use of lined canals or pipes to prevent seepage. Accurate calculation of delivery of irrigation requirements. |

| | |
|--|---|
| Salinization of soils | Measures to avoid water logging: Leaching of salts by flushing soils periodically Cultivation of crops with salinity tolerance. |
| Scouring of canals | Design of canal system to minimize risk Use of canals lined with rocks |
| Clogging of canals by sediment | Measures to minimize erosion on fields Design and management of canals to minimize sedimentation. Provision of access to canals for removal of weeds and sediments. |
| Leaching of nutrients from soils | Avoidance of over-watering Replacement of nutrients by fertilizer and/or crop rotation. Accurate calculation of fertilizer requirements. |
| Algal blooms and weed proliferation. | Appropriate application of fertilizers (timing and quantity). |
| Clogging of canals by weeds. | Design and management of canals to minimize weed growth. Provision of access to canals for treatment or removal of weeds. |
| Deterioration of river water quality below irrigation subproject and contamination of local ground water (higher salinity, nutrients, agrochemicals) affecting fisheries and downstream users. | Improved water management; improved agricultural practices and control of inputs (particularly pesticides and chemical fertilizers). Imposition of water quality criteria. |
| Seawater intrusion into freshwater systems. | Location of Scheme Appropriate water management |
| Reduction of downstream flows affecting flood plain use, flood plain ecology, riverine and estuarine fisheries, users of water, dilution of pollutants. | Relocation or redesign of subproject. Compensatory measures where possible. |
| Encroachment on swamps and other ecologically sensitive areas. | Chose subprojects' site to avoid or minimize encroachment on critical areas. Establishment of compensatory parks or reserved areas. |
| Threat to historical, cultural or aesthetic features. | Chose subprojects' site to prevent loss. Salvage or protection of cultural sites. |
| Alteration or loss of flood plain vegetation and disturbance of coastal ecosystems (e.g. mangroves) | Chose subprojects' site to less vulnerable area. Limitation and regulation of water take-off to minimize problems to extent possible. |
| Introduction or incidence of water-borne or water-related diseases. | Use of lined canals or pipes to discourage vectors Avoidance of stagnant or slowly moving water Installation of gates at canal ends to allow complete flushing Filling or drainage of borrow pits along canals and roads |

| | |
|---|---|
| | <p>Water testing</p> <p>Disease prophylaxis and treatment</p> |
| Disease and health problems from use of wastewater irrigation. | <p>Wastewater treatment (e.g. settling ponds prior to use).</p> <p>Establishment and enforcement standards for wastewater use.</p> |
| Conflicts over water supply and inequalities in water distribution throughout service area. | <p>Means to ensure equitable distribution among users and monitor to assure adherence.</p> <p>Establishment of effective water users associations</p> |
| Over-pumping of groundwater. | <p>Limitation of withdrawal so that it does not exceed "safe yield"(recharge rate).</p> |
| External | |
| Water quality deteriorated or made unusable by upstream land use and pollutants discharge. | <p>Control of land use in watershed areas.</p> <p>Control of pollution sources</p> <p>Water treatment prior to use.</p> |
| | |

Annex 6: Ministerial Instruction No 8029/MONRE dated December 17, 2013 on Initial Environmental Examination of the Investment Projects and Activities



Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Natural Resources and Environment No. 8029/MONRE
Vientiane Capital, dated 17 December 2013

**Ministerial Instruction on
Initial Environmental Examination of the Investment Projects and Activities**

- Reference is made to Article 21 of the Law on Environmental Protection (Amended) No. 29/NA, dated 18 December 2012;
- Reference is made to the Government Decree on the Establishment and Function of the Ministry of Natural Resources and Environment No. 435/PM, dated 28 November 2011.

**Minister of the Ministry of Natural Resources and Environment issues the following
Instructions:**

**Part I
Objectives and General Principles**

1.1 Objectives of this Instruction

This Instruction is the instruction implementing the provisions prescribed under Article 21 of the Law on Environmental Protection (Amended) No. 29/NA, dated 18 December 2012. This Instruction aims to ensure the uniformity in the conductance of the Initial Environmental Examination by every Investment Projects and Activities of a public and private or domestic and international enterprise that causes or is likely to cause environmental and social impacts. Those Investment Projects and Activities shall conduct the efficient Initial Environmental Examination, contribute in the sustainable socio-economic development of the country and shall mitigate as well as enhance the global warming adaptation.

1.2 General Principles relating to Initial Environmental Examination of the Investment Projects and Activities

The Initial Environmental Examination of the Investment Projects and Activities shall be implemented pursuant to the following principles:

- The Project Owner shall be fully responsible for the conductance of the Initial Environmental Examination of the Investment Projects and Activities. The Project Owner shall obtain the Environmental Compliance Certificate approving the Initial Environmental Examination Report from the relevant Provincial Department of Natural Resources and

Environment prior to the construction and operation such proposed Investment Projects and Activities;

- The Project Owner shall conduct the Initial Environmental Examination strictly in compliance with every provision of this Ministerial Instruction, the relevant technical guidelines and other relevant laws and regulations;

- The Initial Environmental Examination of the Investment Projects and Activities shall be conducted by the domestic or the foreign Environmental Service Provider which have been established and operating pursuant to Article 44 and Article 45 of the Law on Environmental Protection (Amended);

- During the conductance of the Initial Environmental Examination, the Project Owner shall ensure the strict compliance of the Public Involvement and the consultation with the local administration, the Project-Affected Persons and other Stakeholders with this Instruction, the Technical Guideline on Public Involvement and other relevant laws and regulations;

- The Project Owner shall ensure the implementation of the environmental and social management and mitigation measures as defined in the Environmental and Social Management and Monitoring Plan and the Project Owner shall be fully responsible for all the environmental and social impacts caused by the Investment Projects and Activities throughout the construction and operation period of such Investment Projects and Activities;

- In case that the Project Owner intends to engage any contractors to perform any part of the Investment Projects and Activities, the Project Owner shall incorporate the detailed conditions in relation to the environmental and social management and monitoring measures into the engagement contract to ensure a fully compliant performance of such contractor. However, in all circumstances, the Project Owner shall remain fully responsible for any action or omission of the contractor, which results in the social and environmental impacts from the Investment Projects and Activities;

- During the construction or the operation period of the Investment Projects and Activities, in case that the relevant Provincial Department of Natural Resources and Environment considers that (i) the Environmental and Social Management and Monitoring Plan of such Investment Projects and Activities does not include sufficient measures to mitigate and remedy the social and environmental impacts; (ii) the plan does not match the actual circumstance; or (iii) those measures specified in the plan cannot achieve the anticipated objectives, the Provincial Department of Natural Resources and Environment will notify the Project Owner in writing of any revisions that they would require and the timeline within which the Project Owner shall revise those plans. Then, the Project Owner shall submit the revised Environmental and Social Management and Monitoring Plan to the Provincial Department of Natural Resources and Environment for re-approval;

- The Project Owner who intends to transfer their Investment Projects and Activities (the former Project Owner) to other person (the new Project Owner) shall incorporate the detailed conditions in the ownership transfer contract that the new Project Owner shall continue to complete the performance and implementation of all the environmental and social management and monitoring measures as defined in the approved Environmental and Social Management and Monitoring Plan;

- 6 months prior to the end of the investment period of the Investment Projects and Activities, the Project Owner shall inform the relevant Provincial Department of Natural Resources and Environment for their monitor and assessment of the implementation of the environmental and social mitigation and monitoring measures undertaken by the Project Owner. In case that all the measures are fully and completely implemented and there is no residual environmental or social impact, the relevant Provincial Department of Natural

Resources and Environment will issue the confirmation letter to the Project Owner. On the contrary, in case there is any residual impact remaining, the relevant Provincial Department of Natural Resources and Environment will advise the Project Owner to continue to mitigate all of those residual impacts. Upon the completion of all residual impacts mitigation, the Project Owner will then be considered being released from the obligation to implement the environmental and social mitigation measures;

- In case that the Project Owner intends to expand their Investment Projects and Activities, either in the form of the establishment of the new component of the Investment Projects and Activities or the expansion of the area or size of the Investment Projects and Activities, such Project Owner shall be obliged to conduct the Initial Environmental Examination if such expanded Investment Projects and Activities is categorized at Group 1. The Project Owner shall comply with this Instruction and shall obtain the Environmental Compliance Certificate approving the Initial Environmental Examination report prior to the commencement of any operation in such expanded components.

Part II

Initial Environmental Examination Process

2.1 Screening Process of the Investment Projects and Activities

Screening process is the first step in the Environmental Impact Assessment process and the key milestone to determine whether or not the Investment Projects and Activities as proposed need any Environmental Impact Assessment. The details for the screening process are as follows:

- The Project Owner shall apply the List of Investment Projects and Activities as the reference for the screening process to determine which level of the Environmental Impact Assessment the Project Owner shall conduct;

- In case the Investment Projects and Activities are not categorized in any group in the List of Investment Projects and Activities, the Provincial Department of Natural Resources and Environment shall apply a separate criteria to the relevant information as specified in the investment application to conduct further screening which level of the Environmental Impact Assessment such Investment Projects and Activities shall conduct or the Environmental Impact Assessment is not needed at all;

- In case any Investment Projects and Activities are screened as not being required to conduct any Environmental Impact Assessment, the Provincial Department of Natural Resources and Environment will impose certain conditions relating to the environmental and social management and mitigation measures on the Project Owner.

2.2 List of Investment Projects and Activities

List of Investment Projects and Activities divides the Investment Projects and Businesses into 2 groups as follows:

- Group 1: Investment Projects and Activities that are anticipated to cause the insignificant or minimal environmental and social impacts; therefore, generally required to conduct an Initial Environmental Examination;
- Group 2: Investment Projects and Activities that are anticipated to cause the significant or major environmental and social impacts; therefore, generally required to conduct an Environmental and Social Impact Assessment.

List of Investment Projects and Activities categorizing these groups of Investment Projects and Activities shall be prescribed separately in the Decision of the Ministry of Natural Resources and Environment.

2.3 Initial Environmental Examination Report (IEE Report)

After the screening process, the Project Owner of any Investment Projects and Activities that are categorized as Group 1 shall prepare the IEE Report in strict compliance with the following conditions:

- The Project Owner shall prepare the IEE Report in strict compliance with the process and conditions specified in this Instruction, the relevant technical guidelines and the relevant laws and regulations;
- The Project Owner shall ensure that the Environmental and Social Management and Monitoring Plan are attached as one component in the IEE Report; provided that such Environmental and Social Management and Monitoring Plan shall be prepared in compliance with the conditions specified in Clause 2.5 of this Instruction and the relevant technical guideline; and
- The Project Owner shall prepare the IEE Report in Lao language otherwise it will not be considered for the issuance of the Environmental Compliance Certificate.

2.4 Review of the Initial Environmental Examination Report

The process for the review of the IEE Report shall be undertaken in the following sequences:

- The Project Owner shall submit 1 set of an application and the final version of the IEE Report that integrates the Environmental and Social Management and Monitoring Plan amended pursuant to the comments gathered from the village/district consultation, attached with the minutes from every consultation signed and confirmed by the representatives of the Environmental Service Provider preparing the IEE Report, the Project Owner and other relevant Governmental authorities presiding at the consultations, to the Provincial Department of Natural Resources and Environment;
- Within 10 business days, the Provincial Department of the Natural Resources and Environment shall review the IEE Report to ensure that the Initial Environmental Examination is correct and comprehensive and shall notify the Project Owner in writing of the result from the examination in one of the following manner:
 - a. in case the IEE Report submitted is accurate and comprehensive, requesting the Project Owner to submit 15 or more IEE Reports both in paper and electronic copies to the Provincial Department of Natural Resources and Environment for further review and approval process to be undertaken; or
 - b. in case the IEE Report submitted is inaccurate and incomprehensive, requesting the Project Owner to revise the IEE Report before submitting the revised IEE Report to the Provincial Department of Natural Resources and Environment for their consideration and approval again.
- The review process of the IEE Report shall be completed within 40 business days from the date that the Project Owner submits every documents required above to the Provincial Department of Natural Resources and Environment; provided that such timeline will not include the period of time that the Project Owner takes to revise the IEE Reports pursuant to the comments gathered during the review process. The review process shall be undertaken as follows:
 - a. Within 5 business days, the Provincial Department of Natural Resources and Environment shall distribute the IEE Report to the relevant lined agencies in the

- provincial level, the District Office of Natural Resources and Environment and other relevant Stakeholders for their review and comments;
- b. Within 20 business days after the last date that the IEE Report is submitted to the relevant parties as specified in a. above, the relevant lined agencies at the provincial level, the District Office of Natural Resources and Environment and other relevant Stakeholders shall complete their review of the IEE Report and submit their comments to the Provincial Department of Natural Resources and Environment. If no comment is submitted within such specified period of time, it will be deemed that the IEE Report is approved and the relevant parties waive their rights to make any further comments thereon;
 - c. The Provincial Department of the Natural Resources and Environment, in coordination with the Project Owner, shall hold the consultation meeting at the district/provincial level in due time during the review period. During such consultation meeting, the Project Owner will explain about the IEE Report. The representative from the Ministry of Natural Resources and Environment, the relevant departments in the provincial level, the District Office of Natural Resources and Environment, the Project-Affected Person and the relevant Stakeholders should present at such consultation meeting as appropriate. In addition, other technical meeting and the additional site inspection can be arranged if necessary;
 - d. Within 15 business days after the deadline for the submission of all comments from the relevant parties, the Provincial Department of Natural Resources and Environment shall complete the review of all the comments gathered, complete their own review and give a written response back to the Project Owner in one of the following manners:
 - + with an agreement from the provincial authorities, in particular, the Chairman of the Provincial Environmental Committee, issuing the Environmental Compliance Certificate to approve the IEE Report and its Environmental and Social Management and Monitoring Plan; or
 - + instructing the Project Owner to revise the IEE Report before re-submitting the revised IEE Report to the Provincial Department of Natural Resources and Environmental for their consideration later;
 - + instructing the Project Owner to prepare the Environmental and Social Impact Assessment instead of the IEE Report if such Investment Projects and Activities are considered complicated or there is a potential to create substantial impacts; or
 - + rejecting the IEE Report in case the Provincial Department of Natural Resources and Environment considers that the result from the study and review in the IEE Report shows that substantial, unavoidable and unremedied social and environmental impacts will be caused from the Investment Projects and Activities; or such Investment Projects and Activities is not in consistent with the National Environmental Policy or Strategic Plan of the Natural Resources and Environment Agencies;
- The Provincial Department of Natural Resources and Environment shall notify the Ministry of Natural Resources and Environment of the response or instruction that they give to the Project Owner pursuant to d. above for their acknowledgement and oversight of the Investment Projects and Activities.

2.5 Environmental and Social Management and Monitoring Plan (ESMMP)

In the preparation of the ESMMP, the Project Owner shall comply with the following conditions:

- The Project Owner shall prepare the ESMMP to incorporate into the package of the IEE Report but in a separate booklet strictly in compliance with the procedure specified in Part II, Clause 2.5 of this Instruction and the relevant technical guidelines;
- The Project Owner shall prepare the ESMMP in Lao language otherwise it will not be considered for the issuance of the Environmental Compliance Certificate;
- 6 months prior to the commencement of the operation period of the Investment Projects and Activities, the Project Owner shall evaluate their implementation of the ESMMP during the construction period. Subsequently, the Project Owner shall revise such ESMMP in strictly compliance with the circumstance of the operation period and submit the revised ESMMP for the Operation Period to the Provincial Department of Natural Resources and Environment for their approval before any implementation of such ESMMP.

2.6 Environmental Compliance Certificate

Environmental Compliance Certificate is the certificate approving the IEE Report and ESMMP of the Investment Projects and Activities that the Provincial Department of Natural Resources and Environment shall issue.

The validity and the conditions attached to such Environmental Compliance Certificate are as follows:

- The Environmental Compliance Certificate shall become effective from the issuance date of such certificate. However, if the Project Owner fails to commence any activities as specified in the project development plan and the Provincial Department of Natural Resources and Environment evaluated that the Investment Projects and Activities do not have any progress within 2 years after obtaining the Environmental Compliance Certificate, such certificate shall become void.

In case the certificate holder whose certificate is void intends to continue with its Investment Projects and Activities, such certificate holder shall revise all the documents relating to the Initial Environmental Examination as approved under the previous certificate, especially the baseline data to reflect the actual circumstance, and submit those documents to the Provincial Department of Natural Resources and Environment for their approval and issuance of the new Environmental Compliance Certificate; provided that the certificate holder can only re-apply for the new Environmental Compliance Certificate once.

- The Environmental Compliance Certificate approving the IEE Report shall be valid throughout the investment period of the Investment Projects and Activities; provided, however, such Environmental Compliance Certificate shall be terminated in case the Environmental Compliance Certificate approving the ESMMP is terminated or is not renewed;

- The Environmental Compliance Certificate approving the ESMMP shall be valid for the period of 2 to 5 years, depending on the determination of the Provincial Department of Natural Resources and Environment based on the impact severity of each type of the Investment Projects and Activities. Such Environmental Compliance Certificate can be renewed periodically throughout the investment period of the Investment Projects and Activities,

The Project Owner shall review and revise the ESMMP pursuant to the actual circumstance of each period in the Investment Projects and Activities and submit the revised ESMMP to the Provincial Department of Natural Resources and Environment for the approval and the renewal of the Environmental Compliance Certificate. The Provincial Department of Natural Resources and Environment shall complete reviewing the renewal

application of the Environmental Compliance Certificate within 15 business days, excluding the time that the Project Developer would spend to revise the document;

- The Environmental Compliance Certificate shall contain certain conditions that the Project Owner shall strictly comply with;

- In case that it is found that the Project Owner fails to comply with any conditions set out in the Environmental Compliance Certificate resulting in the substantial social and environmental impacts, the Provincial Department of Natural Resources and Environment, in the agreement from the high-ranking authorities, shall be entitled to revoke or suspend the validity of the Environmental Compliance Certificate any time during the investment period of the Investment Projects and Activities. Also, the Provincial Department of Natural Resources and Environment shall be entitled to propose to the investment competent authority to consider revoking the Concession Registration Certificate or the Enterprise Registration Certificate of such Investment Projects and Activities in case the substantial and dangerous social and environmental impacts are caused by the Investment Projects and Activities;

- The process for the revocation or suspension of the validity of the Environmental Compliance Certificate shall be undertaken as follows:

- + The Provincial Department of Natural Resources and Environment issuing the Environmental Compliance Certificate shall issue the warning to the Project Owner to rectify any non-compliance found within 90 days from the issuance date of such warning and the memorandum of understanding shall be entered into with the Project Owner;

- + In case the Project Owner does not verify such non-compliance within the specified period of time, the Provincial Department of Natural Resources and Environment shall issue the second notice to the Project Owner to rectify the non-compliance within 60 days from the issuance date of such second warning and again, the memorandum of understanding shall be entered into with the Project Owner;

- + Thereafter, if such non-compliance remains unremedied by the Project Owner within the specified period of time for the second time, the Provincial Department of Natural Resources and Environment shall issue the notice to revoke and suspend the validity of the Environmental Compliance Certificate of such Investment Projects and Activities. Also, the Provincial Department of Natural Resources and Environment, in coordination and agreement with the relevant investment competent authority, shall be entitled to stop the activities that cause the substantial social and environmental impacts.

2.7 Issuance of the Environmental Compliance Certificate for the Existing Investment Projects and Activities

The Project Investments and Activities that are currently existing and operating but did not receive the Environmental Compliance Certificate prior to the effectiveness of this Instruction shall comply with the following conditions:

- The Provincial Department of Natural Resources and Environment shall collect all the list of Investment Projects and Activities that are currently operating and categorized as Group 1 or Group 2 within their territory and submit such list to the Ministry of Natural Resources and Environment within 90 business days after the effectiveness of this Instruction;

- The Ministry of Natural Resources and Environment shall consider and give any of the following directions:

- + For the Investment Projects and Activities that do not cause any social and environmental impacts, the Ministry of Natural Resources and Environment shall notify the Project Owner to continue their business operation and give certain instructions in relation to the environmental and social management that the Project Owner shall comply with. Also, the Ministry of Natural Resources and Environment shall submit a copy of such notice to the investment competent authorities and the Provincial Department of Natural Resources and Environment for their information;
- + For the Investment Projects and Activities that cause any social and environmental impacts, the Ministry of Natural Resources and Environment shall instruct the Project Owner to prepare and complete the Environmental and Social Management and Monitoring Plan within 120 business days. If the Project Owner cannot complete such ESMMP within the specified period of time, the Project Owner shall be subject to the sanctions as specified in Article 92, 93, 94, 95, 96 and 97 of the Law on Environmental Protection (Amended) No.29/NA, dated 18 December 2012 as appropriate;
- + The Ministry of Natural Resources and Environment, in coordination with the relevant authorities from the central and local levels, shall review the Environmental and Social Management and Monitoring Plan that the Project Owner prepared in due time. Then, the result from such review shall be notified in writing to the Project Owner and a copy of such notification shall be submitted to the relevant investment competent and the relevant Provincial Department of Natural Resources and Environment for their information.

2.8 Duties and Responsibilities of the Project Owner in the Initial Environmental Examination

In the Initial Environmental Examination, the Project Owner shall have the following duties and responsibilities:

- to conduct study on overall physical, biological and socio-economic aspects, and to estimate the potential social and environmental impacts which may arise from the Investment Projects and Activities, by referring to the data and information gained from the concerned sectors, local administrations and other sources, including data and information collected in the field survey and from consultations with the Project-Affected Persons and other Stakeholders, both at the central and local levels;
- to coordinate with the relevant Provincial Department of Natural Resources and Environment who is responsible for the review of the IEE Report in undertaking the Public Involvement in strictly compliance with Part II, Clause 2.10 and 2.11 of this Instruction and the relevant Public Involvement guideline and to ensure that there is no threat, coercion, force, violence, bribery or deception involved;
- to coordinate with the relevant Provincial Department of Natural Resources and Environment who is responsible for the review of the IEE Report in arranging the dissemination meeting at the local and central level as the relevant Provincial Department of Natural Resources and Environment may instruct the Project Owner to arrange in order to explain the development plan of the Investment Projects and Activities, the potential benefit, social and environmental impacts that such Investment Projects and Activities may cause and in order to summarize and record all the comments from the Project-Affected Person gained from the consultation meetings into the IEE Report;

- to prepare the IEE Report which includes the ESMMP that defines all the protective and mitigation measures on social and environmental impacts;
- arrange the consultation meetings at the village/district, district/provincial levels and the technical meeting (if necessary), in coordination with the relevant Department of Natural Resources and Environment who is responsible for the review of the IEE Report of any Investment Projects and Activities and with the participation of all the relevant parties at the central and local levels, including the Natural Resources and Environment authorities at the central and local levels, the relevant local administration, the Project-Affected Person and other Stakeholders in order to review the IEE Report;
- to revise the IEE Report and submit the final version of the IEE Report to the relevant Provincial Department of Natural Resources of Environment who is responsible for the review of the IEE Report of any Investment Projects and Activities for their review and approval prior to commencing any implementation of the Investment Projects and Activities;
- to strictly implement the environmental and social management and monitoring measures as specified under the ESMMP throughout the investment period of the Investment Projects and Activities;
- to revise the ESMMP periodically, in particular, during the time that the Project Owner prepares for the renewal of the Environmental Compliance Certificate approving the ESMMP from the Provincial Department of Natural Resources and Environment.

2.9 Duties and Responsibilities of the Governmental Authorities in relation to the Initial Environmental Examination

The Government Authorities that have the mandate relating to the Initial Environmental Examination include the Natural Resources and Environment Agencies and other lined agencies have the following duties and responsibilities:

- a. Ministry of Natural Resources and Environment shall have the following duties and responsibilities:
 - to create the legislatures, technical guidelines and other handbook in relation to the Initial Environmental Examination which will be used nationwide;
 - to build up the technical skills concerning the Initial Environmental Examination to their own staff at the Natural Resources and Environmental authorities at the local level;
 - to provide technical guidance in relation to the preparation and review of the Initial Environmental Examination to the Project Owner;
 - to create and update the list of Investment Projects and Activities that shall conduct the environmental impact assessment, criteria to assess and evaluate the social and environmental impacts for the screening process;
 - to conclude and report the nationwide status of the Initial Environmental Examination to the Government from time to time;
 - to be an active coordinator with the relevant Provincial Department of Natural Resources and Environment and to determine which department will be the main authority responsible for the review process and the issuance of the Environmental Compliance Certificate approving the IEE Report and ESMMP in case the Initial Environmental Examination includes the social and environmental impacts in more than two provinces;
 - to participate in the consultation meeting at the district/provincial levels to review the IEE Report;
 - to provide cooperation and other assistance to the local Natural Resources and Environmental authorities if they have any query in relation to the review of the IEE Report.
- b. Provincial/Capital City Department of Natural Resources and Environment shall have the following duties and responsibilities:

- to give technical guidance in relation to the preparation and review of the IEE Report to the Project Owner;
 - to be an active coordinator with the relevant parties and to cooperate and facilitate the Project Owner in the survey and data collection within its province for the preparation of the IEE Report and in the Public Involvement with the Project-Affected Persons and other Stakeholders;
 - to provide assistance to the Project Owner in the dissemination of information to the Project-Affected Persons and the Stakeholders on the objectives, benefits and potential social and environmental impacts that may arise from the Investment Projects and Activities;
 - to be the main authority to review and issuance the Environmental Compliance Certificate to approve the IEE Report and its ESMMP;
 - to participate in the filed inspection and to be the host for arranging the technical meetings and other consultation meetings to review the IEE Report and its ESMMP;
 - to propose to the high-ranking authorities to establish the technical committee or the ad-hoc committee at the provincial level (as necessary), such as the environmental monitoring unit, the public involvement unit or other monitoring units;
 - to accept the complaints from the Project-Affected Persons and the other Stakeholders in relation to the preparation and review of the IEE Report and resolve the disputes which fall under its responsibility;
 - to conclude and report the status of the Initial Environmental Examination to the provincial administrative and the Ministry of Natural Resources and Environment from time to time.
- c. District Office of the Natural Resources and Environment shall have the following duties and responsibilities:
- to be an active coordinator with the relevant parties and to cooperate and assist the Project Owner in the survey and data collection within its district for the preparation of the IEE Report and in the Public Involvement with the Project-Affected Persons and the Stakeholders;
 - to cooperate with the Project Owner in the dissemination of information to the Project-Affected Persons and the Stakeholders on the objectives, benefits and the social and environmental impacts that may arise from the Investment Projects and Activities;
 - to participate in the field inspection; to review; to comment and to be the co-host with the Provincial Department of Natural Resources and Environment in arranging the consultation meetings in coordination with the Project Owner, the local administrations at the district and village levels to consider and IEE Report and its ESMP from the first to the final versions;
 - to propose to the high-ranking authorities to establish the technical committee or ad-hoc committee at the district level (as necessary), such as the environmental monitoring units, the public involvement units or other monitoring units;
 - to accept the complaints from the Project-Affect Persons and the Stakeholders in relation to the preparation and review of the IEE Report and resolve the disputes which falls under its responsibility;
 - to conclude and report the status of the Initial Environmental Examination to the district administration and the Provincial Department of Natural Resources and Environment from time to time.
- d. Village Unit of the Natural Resources and Environment shall have the following duties and responsibilities:
- to be an active coordinator with the relevant parties and to cooperate and assist the Project Owner in the survey and data collection within its village for the preparation of the

IEE Report and in the Public Involvement with the Project-Affected Persons and the Stakeholders;

- to assist the Project Owner in the information dissemination to the Project-Affected Persons and the Stakeholders on the objectives, benefits and the social and environmental impacts that may arise from the Investment Projects and Activities;
 - to participate in the field inspection; to review; to comment the IEE Report; and to participate in the consultation meeting at each level;
 - to propose to the high-ranking authorities to establish the technical committee or the ad-hoc committee at the village level (as necessary);
 - to accept the complaints from the Project-Affected Persons and the Stakeholders in relation to the preparation and review of the IEE Report and resolve the disputes which fall under the its responsibility;
 - to conclude and report the status of the Initial Environmental Examination to the head of the village and the District Office of the Natural Resources and Environment from time to time.
- e. Other lined agencies at the local levels shall have the following duties and responsibilities:
- to participate in the field inspection; to review; to comment the IEE Report and its ESMMP; and to participate in the technical meeting and the consultation meeting at each level;
 - to contribute the technical assistance in the technical or ad-hoc committees as required;
 - to participate in the grievance redress committee to resolve the disputes relating to the Initial Environmental Examination according to their mandates.

2.10 Public Involvement of the Project-Affected Persons and the Stakeholders

The Project-Affected Persons and the Stakeholders shall have the following participation in the Initial Environmental Examination:

- to receive information on the development plan of the Investment Projects and Activities, the benefit to be received, the social and environmental impacts that may arise from the Investment Projects and Activities;
- to cooperate and provide information on local social environmental and natural environment in the area of the Investment Projects and Activities and in the nearby locations to be used in the preparation of the IEE Report and its ESMMP;
- to receive information in relation to the IEE Report as well as other progress report on the implementation of the environmental and social management and monitoring measures;
- to participate in the field inspection and to be the main party participating in the consultation meetings at all levels to give comment on the preparation and review process of the IEE Report and its ESMMP;
- to make a written complaints to the local administration at all levels to resolve the social and environmental impacts caused by the Investment Projects and Activities;
- to participate in the monitoring activities which will be conducted to ensure the implementation of the environmental and social management and monitoring measures and to report to the Natural Resources and Environmental authorities at the local levels in case of they found any social and environmental impacts caused.

2.11 Public Involvement Process

The Provincial Department of the Natural Resources and Environment responsible for the review and the issuance of the Environmental Compliance Certificate approving the IEE Reports and its ESMMP, in coordination with the local administrations and the Project Owner, shall ensure that the Public Involvement of the Project-Affected Persons and the Stakeholders be undertaken pursuant to the following steps of the Initial Environmental Examination:

- During the process of data collection for the preparation of the IEE Report and its ESMMP, the dissemination meeting shall be held for the Project-Affected Persons and the Stakeholders in various forms both in Lao language and local language to explain the development plan of the Investment Projects and Activities, the benefits to be gained and the social and environmental impacts; and to gather the comments from the Project-Affected Persons and other Stakeholders;

- During the process of the preparation and review of the IEE Report and its ESMMP, the consultation meetings shall be held at the village/district and district/provincial levels in consistent with the review process of the IEE Report and its ESMMP to ensure that the Project-Affected Persons and the Stakeholders have an opportunity to provide comments to the first to the final IEE Report and its ESMMP;

- During the operation of the Investment Projects and Activities, the Project Owner shall inform the Project-Affected Persons and other Stakeholders of the activities conducted in the Investment Projects and Activities which are likely to cause the social and environmental impacts and shall allow the Project-Affected Persons and other Stakeholders to access to information about the Investment Projects and Activities;

- During the preparation for the closure of the Investment Projects and Activities, the Project Owner shall inform the Project-Affected Persons and other Stakeholders of the implementation of the closure and rehabilitation plan of their Investment Projects and Activities and shall entitle the Project-Affected Persons and other Stakeholders to provide comments and assess the completion or any remaining issues relating to the implementation by the Project Owner of the environmental and social management and monitoring plan throughout the investment period of the Investment Projects and Activities. Such comments from the Project-Affected Persons and other Stakeholders is one of the condition before the Provincial Department of Natural Resources and Environment will issue the letter to confirm the end of the Investment Projects and Activities.

2.12 Funding Obligations of the Project Owner

The Project Owner shall be obliged to provide sufficient funding for all of these budget items:

- all the costs associated with the Initial Environmental Examination as conducted by the Project Owner, Environmental Service Provider and other Governmental authorities such as: the cost for field inspection, dissemination meeting, consultation meeting at the village/district, district/provincial, technical meeting and other activities undertaken in relation to the Public Involvement;

- all certificate fees and service charges payable for the issuance of the Environmental Compliance Certificate; provided that the Project Owner is only required to pay a certificate fee once upon the obtainment of such Environmental Compliance Certificate while the Project Owner is required to pay a service charge for every renewal of the Environmental Compliance Certificate approving the ESMMP;

- all the costs incurred for the implementation of the environmental and social management measures as specified under the ESMMP and under the conditions of the Environmental Compliance Certificate either the measures to be performed and undertaken by the Project Owner or by the Governmental authorities;

- all the costs incurred for the monitoring activities of the implementation of the environmental and social management and monitoring plans as proposed under the ESMMP and the implementation of any conditions to the Environmental Compliance Certificate either to be conducted by the Project Owner and the monitoring of the Governmental authorities pursuant to the provision of Part II Clause 2.18 and 2.19 of this Instruction, including the cost for capacity building and equipment as well as vehicles procurement for the monitoring purpose to be provided to the Governmental authorities at the local levels.

2.13 Management of the Fess and Service Charges

The Provincial Department of Natural Resources and Environment that issues and approve the renewal of the Environmental Compliance Certificate shall have the duty to collect the fees and service charges from the Project Owner at the rate as prescribed under the Presidential Edict on Fees and Service Charges.

All the fees and service charges shall be put into the State Treasury. In case the Provincial Department of Natural Resources and Environment needs to use the technical service fees collected, the department will prepare the budget utilization plan and submit to the high-ranking authorities for their approval as appropriate.

2.14 Information Provision

- The Project Owner shall keep, create, update and submit every information relating to the Initial Environmental Examination of their Investment Projects and Activities in both paper and electronic copies to the Provincial Department of Natural Resources and Environment responsible for the review of the IEE Report and its ESMMP;

- The Project Owner shall be fully responsible for the accuracy, clarity, comprehensiveness and reliability of all the information that he creates relating to the Initial Environmental Examination of their Investment Projects and Activities.

2.15 Reporting Obligations

Throughout the investment period of the Investment Projects and Activities, the Project Owner shall perform the following reporting obligations:

- The Project Owner shall prepare and submit the report periodically: on a monthly basis, quarterly basis and annual basis as specified as the conditions to the Environmental Compliance Certificate issued for each Investment Projects and Activities. Those reports shall include these following material information:

- + the implementation progress of the environmental and social management and monitoring measures as specified under the ESMMP and the compliance with the conditions to the Environmental Compliance Certificate and other contractual commitments;

- + the difficulty confronted by the Project Owner during the implementation period of the environmental and social management and monitoring measures; and

- + other necessary information.

- For the report prepared in relation to the IEE Report, the Project Owner shall submit those reports in 3 sets or more as requested to the Provincial Department of Natural Resources and Environment.

- In case of any accidents, emergency incidents or any breach committed by the Project Owner resulting in the severe social and environmental impacts, the Project Owner shall prepare and submit the incident report to the Provincial Department of Natural Resources and Environment within 24 hours after the Project Owner becoming aware of such incidents.

2.16 Information Disclosure to Public

- The Project Owner shall publicly disclose the information relating to the Project Owner; the social and environmental impacts; the commitment and environmental and social management and monitoring measures; the IEE Plans and its ESMMP; other reports that the Project Owner preparing and submitting to the Governmental Authorities; the monitoring result of measures implementation; budget provided for the Initial Environmental Examination and the implementation of all the environmental and social management and monitoring measures as specified under the ESMMP; any breach of any obligation or measures committed by the Project Owner; and other information requested to be disclosed by the Governmental Authorities to the public.

- The information that the Project Owner shall disclose to the public shall be prepared in Lao and local languages to the fullest extent.

- The relevant Provincial Department of Natural Resources and Environment shall be entitled to reserve the right not to disclose any information relating to privacy of any individual, information relating to the property or commercial rights of the Project Owner.

- In case that the Project Owner does not want to disclose any information as required above, the Project Owner shall submit the written request, attached with those information that they do not want to disclose, to the Provincial Department of Natural Resources and Environment for their consideration whether or not to allow the Project Owner not to disclose such information. If any information is considered information not to be disclosed, such information shall be kept confidential for the period of time as agreed between the relevant Provincial Department of Natural Resources and Environment and the Project Owner.

2.17 Monitoring Units

The monitoring units shall include the following units:

- Monitoring units of the Project Owner;
- Monitoring units of the Governmental authorities, including:
 - + monitoring units from the local Natural Resources and Environmental authorities who is the primary and direct authority responsible for the monitoring of the implementation of the environmental and social management and monitoring measures as specified under the ESMMP attached to the IEE Report;
 - + other local lined agencies.

2.18 Self-Monitoring by the Project Owner

- The Project Owner shall be obliged to be the primary and first party to conduct self-monitoring by concluding and assessing the progress on the implementation of the environmental and social management and monitoring measures as specified under the ESMMP and the Environmental Compliance Certificate undertaken by the Project Owner and submit such progress report prepared from the self-monitoring to the Provincial Department of Natural Resources and Environment from time to time as specified in the Environmental Compliance Certificate.

- If necessary in case of the IEE Reports, the Project Owner shall establish the environmental management office and the public involvement office in order to ensure the efficient implementation and the performance of the environmental and social management and monitoring measures or the public involvement of the Project Owner.

2.19 Governmental Monitoring Units

Governmental Monitoring Units shall have the duty to monitor and inspect the implementation of the social and environmental management and monitoring measures under the ESMMP and of the conditions to the Environmental Compliance Certificate; provided that the detailed duties of each unit shall be as follows:

a. Provincial Department of Natural Resources and Environment shall have the following monitoring duties:

- to be a main authority to monitor and inspect the implementation of the environmental and social management measures under the ESMMP attached to the IEE Report, both by the field inspection and the review of the self-monitoring reports submitted by the Project Owner;

- to delegate the mandate and budget for the monitoring and inspection to the District Office of Natural Resources and Environment and Village Unit of Natural Resources and Environment to participate in the monitoring and inspection activities of the ESMMP attached in the IEE Report;

- to consider and propose to the high-ranking authorities to establish the project environmental monitoring units and the Provincial public involvement units at the provincial level if necessary to monitor and inspect the environmental and social management and monitoring measures and the Public Involvement of the Investment Projects and Activities;

- to conclude and report the status from the monitoring of each Investment Projects and Activities to the provincial administration and the Ministry of Natural Resources and Environment from time to time; and

- to perform another monitoring and inspection works as delegated by the high-ranking authorities to the Department's responsibility.

b. District Office of Natural Resources and Environment shall have the following monitoring duties:

- to be responsible for the monitor and inspection of the implementation of the environmental and social management and monitoring measures under the ESMMP attached to the IEE Report within its district boundary;

- to consider and propose to the high-ranking authorities to establish the project environmental monitoring units at the district level if necessary to monitor and inspect the environmental and social management and monitoring measures;

- to conclude and report the status from the monitoring of each Investment Projects and Activities to the district administration and the Provincial Department of Natural Resources and Environment from time to time; and

- to perform another monitoring and inspection works as delegated by the high-ranking authorities to the Office's responsibility.

c. Village Unit of Natural Resources and Environment shall have the following monitoring duties:

- to be responsible for the monitor and inspection of the implementation of the environmental and social management and monitoring measures under the ESMMP attached to the IEE Report within its village boundary;

- to consider and propose to the high-ranking authorities to establish the project environmental monitoring units at the village level if necessary to monitor and inspect the environmental and social management and monitoring measures;
 - to conclude and report the status from the monitoring of each Investment Projects and Activities to the village administration and the District Office of Natural Resources and Environment from time to time; and
 - to perform another monitoring and inspection works as delegated by the high-ranking authorities to the Unit's responsibility.
- d. Local lined agencies shall have the following monitoring duties:
- to participate in the inspection team which is led by the relevant Natural Resources and Environmental Authorities to monitor and inspect the implementation of the environmental and social management and monitoring measures under the ESMMP attached to the IEE Report as relevant to their mandates;
 - to review and provide technical comments in the environmental monitoring units in each levels as required;
 - to conclude and report the performance of the monitoring and inspection of the Investment Projects and Activities within their mandates and responsibilities to their high-ranking authorities from time to time;
 - for the main investment competent authorities of the Investment Projects and Activities, in addition to the participation in the monitoring team led by the Natural Resources and Environmental Authorities, such competent authorities shall be entitled to conduct their monitoring and inspection directly based on their own legislatures.

2.20 Scope of the Authority of the Governmental Monitoring Units

The Governmental Monitoring Units shall have the following scope of authorities:

- to send their staff or their consultant to the site of the Investment Projects and Activities or the Project Owner's office at any time; provided that the advance notice will be submitted to the Project Owner, except in case of an emergency circumstances which is likely to impose the substantial social and environmental impacts in which the monitoring units shall be entitled to access into the site without the advanced notice is required;
- to take photos, to record voice, to take samples from the Investment Projects and Activities for testing, to inspect the computers and other equipment of the Project Owner, to review all the documents, to interview staffs and to undertake any other activities as appropriate;
- in case that any non-compliance with the environmental and social management and monitoring measures as specified under the ESMMP and the conditions to the Environmental Compliance Certificate is found to be committed by the Project Owner, the Governmental monitoring units shall be entitled to issue the warning to the Project Owner and the Project Owner shall comply with the instruction given in the warning issued by such Governmental monitoring units. If the Project Owner does not comply with such warning, the Environmental Compliance Certificate will be revoked or suspended pursuant to the steps prescribed under Part II Clause 2.6 of this Instruction.

Part III Final Provisions

3.1 Implementation

The Ministry of Natural Resources and Environment delegates the authority to the Provincial Department of Natural Resources and Environment to be the central authority to

coordinate with other local lined agencies to efficiently disseminate, implement and enforce this Instruction.

The related natural persons, legal entities and organizations, both in private and public sectors, shall acknowledge and implement this Instruction strictly.

The relevant authorities or agencies that owns the state-invested project shall ensure sufficient budget for the conductance of the Initial Environmental Examination and the implementation of the environmental and social management and monitoring measures for their Investment Projects and Activities.

3.2 Effectiveness

This Instruction shall be effective from the date of execution. Any decisions, provisions and regulations that contradict with this Instruction shall be revoked.

Minister of the Ministry of Natural Resources and Environment

**ບັນຊີໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ
 ທີ່ຈະຕ້ອງດຳເນີນ ການສຶກສາເບື້ອງຕົ້ນກ່ຽວກັບຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມ ຫລື
 ການປະເມີນຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມສັງຄົມ ແລະ ທຳມະຊາດ**

ບັນຊີໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ປະກອບດ້ວຍ ປະເພດ ແລະ ຂະໜາດ ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ຊຶ່ງໂດຍຫລັກໄດ້ຈັດແບ່ງອອກເປັນ 2 ກຸ່ມ ຄື: ກຸ່ມ 1 ຕ້ອງສ້າງບົດລາຍງານການສຶກສາເບື້ອງຕົ້ນກ່ຽວກັບ ຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມ (ບສຕສ) ແລະ ກຸ່ມ 2 ຕ້ອງສ້າງບົດລາຍງານການປະເມີນຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມສັງຄົມ ແລະ ທຳມະຊາດ (ບປຜສ) (ຍົກເວັ້ນສຳລັບໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ທີ່ຕົກຢູ່ໃນກໍລະນີ ທີ່ລະບຸໄວ້ໃນ ຫມາຍເຫດ ຢູ່ກ້ອງຕາຕະລາງ ລຸ່ມນີ້).

ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໄດ້ຈັດແບ່ງອອກເປັນ 5 ຂະແໜງຄື: (1) ຂະແໜງພະລັງງານ; (2) ຂະແໜງກະສິກຳ ແລະ ປ່າໄມ້; (3) ຂະແໜງອຸດສາຫະກຳປຸງແຕ່ງ; (4) ຂະແໜງພື້ນຖານໂຄງລ່າງ ແລະ ບໍລິ ການ; ແລະ (5) ຂະແໜງແຮ່ທາດ.

ລາຍລະອຽດກ່ຽວກັບປະເພດ ແລະ ຂະໜາດ ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃນແຕ່ລະຂະແໜງ ທີ່ໄດ້ຈັດ ເຂົ້າໃນກຸ່ມ 1 ແລະ ກຸ່ມ 2 ແມ່ນໄດ້ກຳນົດໄວ້ໃນຕາຕະລາງ ລຸ່ມນີ້:

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|---|-------------------------|-------------------------|
| I. ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃນຂະແໜງພະລັງງານ | | |
| ການພັດທະນາທາງດ້ານພະລັງງານໄຟຟ້າ | | |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|---|---|---|---|
| 1.1 | ການຜະລິດໄຟຟ້າດ້ວຍພະລັງງານ ນໍ້າຕົກ (ສ້າງເຂື່ອນໄຟຟ້ານໍ້າຕົກ) | (ກ) 1-15 ເມກາວັດ ຫລື (ຂ) ບັນຈຸບໍລິມາດນໍ້າ < 200 ລ້ານ ມ ³ ຫລື (ຄ) ມີເນື້ອທີ່ອ່າງເກັບ ນໍ້າ <1.500 ເຮັກຕາ | (ກ) ≥5 ເມກາວັດ ຫລື (ຂ) ບັນຈຸບໍລິມາດນໍ້າ ≥200 ລ້ານ ມ ³ ຫລື (ຄ) ມີເນື້ອທີ່ອ່າງເກັບ ນໍ້າ ≥ 1.500 ເຮັກຕາ |
| 1.2 | ການຜະລິດໄຟຟ້າດ້ວຍພະລັງງານ ນິວ ເຄຣຍ, ການຄຸ້ມຄອງ ແລະ ການກຳຈັດສິ່ງ ເສດເຫຼືອນິວເຄຣຍ | | ທຸກຂະໜາດ |
| 1.3 | ການຜະລິດໄຟຟ້າດ້ວຍພະລັງງານຈາກອາຍ ແກັສທຳມະຊາດ | 5-50 ເມກາວັດ | > 50 ເມກາວັດ |
| 1.4 | ການຜະລິດໄຟຟ້າດ້ວຍພະລັງງານລົມ ໂດຍ ນໍ້າໃຊ້ກັງຫັນລົມ | 2-10 ໜ່ວຍກັງຫັນ | > 10 ໜ່ວຍກັງຫັນ |
| 1.5 | ການຜະລິດໄຟຟ້າດ້ວຍພະລັງງານຄວາມ ຮ້ອນ | ≤0 ເມກາວັດ | > 10 ເມກາວັດ |
| ການພັດທະນາທາງດ້ານພະລັງງານອາຍແກັສ ແລະ ນໍ້າມັນເຊື້ອໄຟ | | | |
| 1.6 | ການພັດທະນາທີ່ຂົນສົ່ງນໍ້າມັນ ແລະ ອາຍ ແກັສ | | ທຸກຂະໜາດ |
| 1.7 | ການຂຸດຄົ້ນນໍ້າມັນເຊື້ອໄຟ ຫລືອາຍ ແກັສທຳມະຊາດ | | ທຸກຂະໜາດ |
| 1.8 | ການກັ່ນນໍ້າມັນ | | ທຸກຂະໜາດ |
| 1.9 | ການສ້າງສາງເກັບນໍ້າມັນ | 5,000-50.000 ມ ³ | > 50.000 ມ ³ |
| ການພັດທະນາທາງດ້ານລະບົບສາຍສົ່ງໄຟຟ້າແຮງສູງ | | | |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|---|--|-------------------------|-------------------------|
| 1.10 | ການກໍ່ສ້າງສາຍສົ່ງໄຟຟ້າແຮງສູງ: | | |
| 1.10.1 | ໄຟຟ້າແຮງສູງ ≥ 30 ກິໂລໂວນ | ≤ 15 ກິໂລແມັດ | > 15 ກິໂລແມັດ |
| 1.10.2 | ໄຟຟ້າແຮງສູງ < 230 ກິໂລໂວນ | ທຸກຂະໜາດ | |
| 1.11 | ສະຖານີໄຟຟ້າແຮງສູງ | < 10 ເຮັກຕາ | ≥ 10 ເຮັກຕາ |
| II. ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃນຂະແໜງກະສິກໍາ ແລະ ປ່າໄມ້ | | | |
| ການປູກໄມ້ ແລະ ປູກພືດ | | | |
| 2.1 | ການປູກ ແລະ ຕັດໄມ້ ອຸດສາຫະກໍາ | 20-200 ເຮັກຕາ | > 200 ເຮັກຕາ |
| 2.2 | ການປູກພືດອຸດສາຫະກໍາ | 20-400 ເຮັກຕາ | > 400 ເຮັກຕາ |
| ການລ້ຽງສັດ ແລະ ການປະມົງ | | | |
| 2.3 | ການລ້ຽງສັດໃຫຍ່ ເຊັ່ນ: ງົວ, ຄວາຍ, ມ້າ ແລະ ອື່ນໆ | ≤ 500 ໂຕ | |
| 2.4 | ການລ້ຽງສັດປີກ | ≤ 5.000 ໂຕ | |
| 2.5 | ການລ້ຽງຫມູ | ≤ 500 ໂຕ | |
| 2.6 | ການລ້ຽງປາ ແລະ ສັດນ້ຳ ໃນໜອງນ້ຳ ແບບອຸດສາຫະກໍາ | ≥ 10 ເຮັກຕາ | |
| 2.7 | ການລ້ຽງປາ ແລະ ສັດນ້ຳ ໃນກະຊັງ ຕາມ ລໍາແມ່ນ້ຳ | ≥ 300 ຕາແມັດ | |
| 2.8 | ການລ້ຽງແຂ້ | ≥ 100 ໂຕ | |
| III. ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃນຂະແໜງອຸດສາຫະກໍາປຸງແຕ່ງ | | | |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|---|---|-------------------------|-------------------------|
| ອຸດສາຫະກຳປຸງແຕ່ງອາຫານ | | | |
| 3.1 | ການຜະລິດ, ການປຸງແຕ່ງ ແລະ ການຮັກສາອາຫານ (ຊີ້ນ, ປາ, ຫມາກໄມ້, ນ້ຳມັນຈາກພືດ ແລະ ສັດ ແລະ ອາຫານສັດ) | ≤ 1 ໂຕນ/ມື້ | > 1 ໂຕນ/ມື້ |
| 3.2 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບຜະລິດພັນຈາກນົມ | ≤ 40 ໂຕນ/ມື້ | > 40 ໂຕນ/ມື້ |
| 3.3 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບແບ້ງ ແລະ ຜະລິດຕະພັນ ຈາກແບ້ງ | 40-80 ໂຕນ/ມື້ | > 80 ໂຕນ/ມື້ |
| 3.4 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບນ້ຳຕານ | ≤ 30 ໂຕນ/ມື້ | > 30 ໂຕນ/ມື້ |
| 3.5 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບເຫລົ້າ | ≤ 5 ແສນລິດ/ປີ | > 5 ແສນລິດ/ປີ |
| 3.6 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ນ້ຳຕື່ມບໍ່ມີທາດເຫລົ້າ ແລະ ນ້ຳຕື່ມອະນາໄມ | ທຸກຂະໜາດ | |
| 3.7 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບຜະລິດຕະພັນຢາສຸບ | ທຸກຂະໜາດ | |
| ອຸດສາຫະກຳແຜ່ນແພ, ແຜ່ນເຈ້ຍ ແລະ ຜະລິດຕະພັນໄມ້ | | | |
| 3.8 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບແຜ່ນແພ, ເສັ້ນດ້າຍແບບອຸດສາຫະ ກຳ, ເຄື່ອງນຸ່ງຫົ່ມ ແລະ ຍ້ອມສີຂົນສັດ | ທຸກຂະໜາດ | |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|---|---|-------------------------|-------------------------|
| 3.9 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ການເອືອບ ແລະ ນວດຫນັງ | ທຸກຂະໜາດ | |
| 3.10 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຜະລິດຕະພັນຫນັງ | ≤ 1 ລ້ານອັນ/ປີ | > 1 ລ້ານອັນ/ປີ |
| 3.11 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຜະລິດຕະພັນໄມ້ຫວາຍ ແລະ ວັດຖຸຈັກສານ | ທຸກຂະໜາດ | |
| 3.12 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ໄມ້ປອກ, ໄມ້ບາງຟານ ເປັນແຜ່ນ ແລະ ອື່ນໆ | ≤ 1 ແສນຕາແມັດ/ປີ | > 1 ແສນຕາແມັດ/ປີ |
| 3.13 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບເຈ້ຍ | ≤ 30 ໂຕນ/ມື້ | > 30 ໂຕນ/ມື້ |
| 3.14 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ການພິມ | ທຸກຂະໜາດ | |
| ອຸດສາຫະກຳຜະລິດຕະພັນເຄມີ ແລະ ອຸປະກອນການແພດ | | | |
| 3.15 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ນ້ຳມັນເຊື້ອໄຟ (ເປໂຕຣຽມ) ແລະ ໄຮໂດຣຄາຣ໌ບອນ | | ທຸກຂະໜາດ |
| 3.16 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຜະລິດຕະພັນເຄມີ | | ທຸກຂະໜາດ |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|--------------------------------------|---|-------------------------|-------------------------|
| 3.17 | ໂຮງງານດຳເນີນກິດຈະການຜະລິດ ຜະລິດ ຕະພັນການແພດ ແລະ ການຢາ ທີ່ນຳໃຊ້ ຂະບວນການທາງເຄມີ ແລະ ຊີວະເຄມີ | | ທຸກຂະໜາດ |
| 3.18 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບວັດຖຸ ພັນອະນາໄມ, ລ້າງຂັດຖູ ແລະ ເຄື່ອງສຳອາງ | ≤ 10 ໂຕນ/ມື້ | > 10 ໂຕນ/ມື້ |
| 3.19 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຢາງຍືດ ແລະ ຢາງພາລາ | 50-200 ໂຕນ/ປີ | > 200 ໂຕນ/ປີ |
| 3.20 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຜະລິດຕະພັນ ປາລາສະຕິກ | ≤ 400 ໂຕນ/ປີ | > 400 ໂຕນ/ປີ |
| ອຸດສາຫະກຳຜະລິດຕະພັນແຮ່ທີ່ບໍ່ແມ່ນໂລຫະ | | | |
| 3.21 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ແກ້ວ ແລະ ຜະລິດຕະພັນ ຈາກແກ້ວ | ທຸກຂະໜາດ | |
| 3.22 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຜະລິດຕະພັນແຮ່ ທີ່ບໍ່ແມ່ນໂລຫະອື່ນໆ | ທຸກຂະໜາດ | |
| 3.23 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ຊີມັງ , ປຸນຂາວ ແລະ ປຸນໂບກ (Plaster) | ≤ 20 ໂຕນ/ຊົ່ວໂມງ | > 20 ໂຕນ/ຊົ່ວໂມງ |
| ອຸດສາຫະກຳແຍກໂລຫະອອກຈາກແຮ່ | | | |
| 3.24 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ເຫລັກຂັ້ນຕົ້ນ, ເຫລັກ ແລະ ເຫລັກປຸງແຕ່ງ | ≤ 5.000 ໂຕນ/ປີ | > 5.000 ໂຕນ/ປີ |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|-------------------------------------|---|-------------------------|-------------------------|
| 3.25 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ການຫລໍ່ຫລອມຮີດດຶງໂລຫະປະເສີດຂັ້ນຕົ້ນ ແລະ ໂລຫະທີ່ບໍ່ແມ່ນທາດເຫລັກ | | ທຸກຂະໜາດ |
| 3.26 | ການຫລໍ່ຫລອມຮີດດຶງເຫລັກ ແລະ ເຫລັກກ້າ | ≤ 50 ໂຕນ/ມື້ | > 50 ໂຕນ/ມື້ |
| 3.27 | ການຫລໍ່ຫລອມຮີດດຶງໂລຫະ ທີ່ບໍ່ແມ່ນທາດເຫລັກ | ທຸກຂະໜາດ | |
| 3.28 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ໂຄງປະກອບຜະລິດຕະພັນ ໂລຫະ, ຖັງ, ອ່າງ | ທຸກຂະໜາດ | |
| 3.29 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ໝໍ້ກຳເນີດໄຟ | ທຸກຂະໜາດ | |
| ອຸດສາຫະກຳອື່ນໆ | | | |
| 3.30 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ເຄື່ອງຮັບໃຊ້ ໃນບ້ານເຮືອນທົ່ວໄປ ອື່ນໆ ເຄື່ອງໃຊ້ຫ້ອງການ ແລະ ເຄື່ອງໃຊ້ໄຟຟ້າ | ທຸກຂະໜາດ | |
| 3.31 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ການຜະລິດໝໍ້ໄຟ ແລະ ຖ່ານໄຟສາຍ | ≤ 70 ໂຕນ/ປີ | > 70 ໂຕນ/ປີ |
| 3.32 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບອາໄຫລ່ ແລະ ສິ້ນສ່ວນລົດຍົນ ແລະ ເຄື່ອງຈັກ ທີ່ກ່ຽວຂ້ອງ | ≤ 1.000 ໂຕນ/ປີ | > 1.000 ໂຕນ/ປີ |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|-------------------------------------|---|-------------------------|-------------------------|
| 3.33 | ໂຮງງານຜະລິດລົດຖີບ ແລະ ລີ້ຮັບໃຊ້ຄົນ ພິການ | ≤ 10.000 ຄັນ/ປີ | > 10.000 ຄັນ/ປີ |
| 3.34 | ໂຮງງານດຳເນີນກິດຈະການ ກ່ຽວກັບ ເຄື່ອງ ເຮືອນ | ≤ 10.000 ອັນ/ປີ | > 10.000 ອັນ/ປີ |
| 3.35 | ໂຮງງານຜະລິດນ້ຳປະປາ | ທຸກຂະໜາດ | |
| ການຈັດການສິ່ງເສດເຫຼືອ | | | |
| 3.36 | ການເກັບຮັກສາສິ່ງເສດເຫຼືອ ທີ່ບໍ່ເປັນ ອັນຕະລາຍ | ≤ 5.000 ໂຕນ/ປີ | > 5.000 ໂຕນ/ປີ |
| 3.37 | ການເກັບຮັກສາສິ່ງເສດເຫຼືອ ທີ່ເປັນ ອັນຕະລາຍ | | ທຸກຂະໜາດ |
| 3.38 | ການກຳຈັດສິ່ງເສດເຫຼືອ ທີ່ເປັນອັນ ຕະ ລາຍ | | ທຸກຂະໜາດ |
| 3.39 | ການບຳບັດ ແລະ ການບໍລິການຄຸ້ມຄອງສິ່ງ ເສດເຫຼືອອື່ນໆ | | ທຸກຂະໜາດ |
| 3.40 | ການກໍ່ສ້າງໂຮງງານນຳໃຊ້ສິ່ງເສດເຫຼືອຄືນ ໃໝ່ | | ທຸກຂະໜາດ |
| 3.41 | ການກໍ່ສ້າງເຕົາເຜົາສິ່ງເສດເຫຼືອ | | ທຸກຂະໜາດ |
| 3.42 | ໂຮງບຳບັດນ້ຳເສຍຂອງຕົວເມືອງ | ≤ 50.000 ຄົນ | >50.000 ຄົນ |
| 3.43 | ໂຮງບຳບັດນ້ຳເສຍອຸດສາຫະກຳ | | ທຸກຂະໜາດ |
| 3.44 | ການກໍ່ສ້າງຄອງລະບາຍນ້ຳເປືອນ | ທຸກຂະໜາດ | |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|--|--|-------------------------|-------------------------|
| IV. ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃນຂະແໜງພື້ນຖານໂຄງລ່າງ ແລະ ບໍລິການ | | | |
| 4.1 | ການຖິ້ມບຶງ, ແມ່ນ້ຳ, ຄອງລະບາຍນ້ຳ ທີ່ ຈະກໍ່ຄວາມເສຍຫາຍ ຕໍ່ ສາທາລະ ນະ | | ທຸກຂະໜາດ |
| 4.2 | ການກໍ່ສ້າງເຮືອນພັກລວມຫມູ່, ບ້ານຈັດ ສັນ | >50 ຫ້ອງ | |
| 4.3 | ການກໍ່ສ້າງສະໜາມກັອບ | | ທຸກຂະໜາດ |
| 4.4 | ການກໍ່ສ້າງສະໜາມກີລາ ຄົບວົງຈອນ | | ທຸກຂະໜາດ |
| 4.5 | ການກໍ່ສ້າງໂຮງແຮມ ຫລື ສະຖານທີ່ພັກ ຕາກອາກາດ | ≤ 80 ຫ້ອງ | > 80 ຫ້ອງ |
| 4.6 | ການກໍ່ສ້າງໂຮງແຮມ ຄົບວົງຈອນ | ≤ 50 ເຮັກຕາ | > 50 ເຮັກຕາ |
| 4.7 | ການພັດທະນາບ່ອນທ່ອງທ່ຽວ ແລະ ບ່ອນ ພັກຜ່ອນ ໃນພື້ນທີ່ທີ່ມີຄວາມ ສຳຄັນທາງ ດ້ານສິ່ງແວດລ້ອມສັງຄົມ ແລະ ສິ່ງແວດ ລ້ອມທຳມະຊາດ | | ທຸກຂະໜາດ |
| 4.8 | ການກໍ່ສ້າງ ແລະ ພັດທະນາເຂດເສດ ຖະ ກິດພິເສດ ແລະ ເຂດເສດຖະກິດສະເພາະ | | ທຸກຂະໜາດ |
| 4.9 | ການກໍ່ສ້າງໂຮງຫມໍ | ≤ 80 ຕຽງ | > 80 ຕຽງ |
| 4.10 | ການກໍ່ສ້າງເສັ້ນທາງລົດໄຟ | | ທຸກຂະໜາດ |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|---|---|------------------------------------|---------------------------------|
| 4.11 | ການກໍ່ສ້າງເສັ້ນທາງໃຫມ່ (ເສັ້ນທາງຫລວງແຫ່ງຊາດ, ແຂວງ, ເມືອງ, ຊົນນະບົດ, ທາງຫລວງພິເສດ) | | ທຸກຂະໜາດ |
| 4.12 | ການປັບປຸງ ຫລື ພື້ນຟູ ເສັ້ນທາງຫລວງແຫ່ງຊາດ, ແຂວງ, ເມືອງ, ຊົນນະບົດ, ທາງຫລວງພິເສດ | ທຸກຂະໜາດ | |
| 4.13 | ການກໍ່ສ້າງສະໜາມບິນ | | ທຸກຂະໜາດ |
| 4.14 | ການກໍ່ສ້າງຕາຫນ່າງ ໂທລະຄົມມະ ນາຄົມ | ທຸກຂະໜາດ | |
| 4.15 | ການຄົມມະນາຄົມທາງນ້ຳ (ການປັບປຸງຄອງເດີນເຮືອ ຕາມລຳແມ່ນ້ຳຂອງ) | ≤ 200 ໂຕນ | > 200 ໂຕນ |
| 4.16 | ການກໍ່ສ້າງທ່າເຮືອ: | | |
| 4.16.1 | ທ່າເຮືອໂດຍສານ | ≤ 500 ໂຕນ (ບໍ່ລວມນ້ຳຫນັກເຮືອ) | > 500 ໂຕນ (ບໍ່ລວມນ້ຳຫນັກເຮືອ) |
| 4.16.2 | ທ່າເຮືອຂົນສົ່ງສິນຄ້າທົ່ວໄປ | ≤ 500 ໂຕນ (ບໍ່ລວມນ້ຳຫນັກເຮືອ) | > 500 ໂຕນ (ບໍ່ລວມນ້ຳຫນັກເຮືອ) |
| 4.16.3 | ທ່າເຮືອຂົນສົ່ງສິນຄ້າ ທີ່ເປັນອັນຕະລາຍ | | ທຸກຂະໜາດ |
| 4.17 | ການກໍ່ສ້າງປ້ອງກັນ ຕະຝັ່ງເຈື່ອນ | ≤ 1 ກິໂລແມັດ | >1 ກິໂລແມັດ |
| V. ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃນຂະແໜງແຮ່ທາດ | | | |
| ການຂຸດຄົ້ນແລະປຸງແຕ່ແຮ່ທາດ | | | |
| 5.1 | ການດູດທຶນ, ຊາຍ ຢູ່ໃນນ້ຳ | 1.000-50.000 ມ ³ /ມື້ | > 50.000 ມ ³ /ມື້ |

| ປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ | | ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ | ກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ |
|-------------------------------------|--|---|--|
| 5.2 | ການຂຸດເຈາະຫີນ ແລະ ຂົນຫີນ | ≤ 50 ໂຕນ/ມື້ | > 50 ໂຕນ/ມື້ |
| 5.3 | ການຂຸດຄົ້ນວັດຖຸດິບຮັບໃຊ້ ການກໍ່ສ້າງ (ດິນ, ຫີນ, ຊາຍ) ຢູ່ເທິງຫນ້າດິນ | ≤ 100.000 ມ ³ /ປີ ຫລື ພື້ນທີ່ ≤ 20 ຮຕ | > 100.000 ມ ³ /ປີ ຫລື ພື້ນທີ່ > 20 ຮຕ |
| 5.4 | ການຂຸດຄົ້ນແຮ່ທາດແຂງ (ໂດຍບໍ່ໄດ້ນໍາໃຊ້ ສານເຄມີ) | | ທຸກຂະໜາດ |
| 5.5 | ການຂຸດຄົ້ນ ແລະ ປຸງແຕ່ງ ແຮ່ທາດ ທີ່ນໍາໃຊ້ສານເຄມີອັນຕະລາຍ | | ທຸກຂະໜາດ |
| 5.6 | ການປຸງແຕ່ງແຮ່ທາດແຂງ | ≤ 50.000 ໂຕນ/ປີ | > 50.000 ໂຕນ/ປີ |
| ການຈັດການ ແລະ ຄຸ້ມຄອງນໍ້າ | | | |
| 5.7 | ການຂຸດຄົ້ນ ແລະ ນໍາໃຊ້ນໍ້າໃຕ້ດິນ ເພື່ອ ການນໍາໃຊ້ທາງອຸດສາຫະກຳ, ກະສິກຳ ແລະ ການອຸປະໂພກໃນຕົວເມືອງ | 500- 5.000 ມ ³ /ມື້ | > 5.000 ມ ³ /ມື້ |
| 5.8 | ການກໍ່ສ້າງອ່າງເກັບນໍ້າ ແລະ ເຂື່ອນ | 1-200 ລ້ານ ມ ³ ຫລື ຄວາມສູງຂອງສັນເຂື່ອນ ≤ 10 ແມັດ | > 200 ລ້ານມ ³ ຫລື ຄວາມສູງຂອງສັນເຂື່ອນ > 10 ແມັດ |

ຫມາຍເຫດ:

1. ສໍາລັບໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ໃດໜຶ່ງ ທີ່ປະກອບດ້ວຍຫລາຍໂຄງການຍ່ອຍທີ່ຕິດພັນກັບການສ້າງຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມສັງຄົມ ແລະ ຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມທໍາມະຊາດທີ່ສະເໜີພັດທະນາໃນຂອບເຂດພື້ນທີ່ດຽວກັນ ແລະ ໄດ້ສະເໜີຂໍອະນຸມັດການລົງທຶນເປັນໂຄງການດຽວ, (ເຊັ່ນ: ໂຄງການຜະລິດໄຟຟ້າດ້ວຍພະລັງງານນໍ້າຕົກ ຊຶ່ງກວມເອົາ ກິດຈະກຳການກໍ່ສ້າງເຂື່ອນ, ສ້າງຖະໜົນຫີນທາງ, ສ້າງສາຍສົ່ງໄຟຟ້າ; ໂຄງການດຳເນີນກິດຈະການກ່ຽວກັບຜະລິດຕະພັນອ້ອຍ ຊຶ່ງກວມເອົາ ການປູກອ້ອຍ, ການສ້າງໂຮງງານປຸງແຕ່ງອ້ອຍ; ໂຄງການດຳເນີນກິດຈະການ ກ່ຽວກັບຜະລິດຕະພັນຢາງພະລາ ຊຶ່ງກວມເອົາ ການປູກຢາງພະລາ ແລະ ການສ້າງໂຮງງານປຸງແຕ່ງຢາງພະລາ ແລະ ອື່ນໆ), ຖ້າຕົກໃນກໍລະນີນີ້ ເຈົ້າຂອງໂຄງການຕ້ອງສ້າງບປຜສ ຢ່າງດຽວ ໂດຍບໍ່ພິຈາລະນາເຖິງຂະໜາດຂອງໂຄງການ ທັງນີ້ ຕ້ອງສ້າງເປັນບົດລາຍງານສະບັບດຽວ ທີ່ປະກອບດ້ວຍການປະເມີນຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມສັງຄົມ ແລະ ສິ່ງແວດລ້ອມທໍາມະຊາດ ຂອງທຸກກິດຈະກຳທີ່ກ່ຽວຂ້ອງຂອງໂຄງການ ເຂົ້າກັນ;

2. ສໍາລັບໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆໃດໜຶ່ງ ທີ່ມີກິດຈະກຳແບບດຽວກັນ ແຕ່ພັດທະນາໃນຂອບເຂດພື້ນທີ່ແຕກຕ່າງກັນ, (ເຊັ່ນ: ໂຄງການກໍ່ສ້າງເສັ້ນທາງ, ການກໍ່ສ້າງສາຍສົ່ງໄຟຟ້າແຮງສູງ, ການປູກໄມ້ອຸດສາຫະກຳ ອື່ນໆ) ຊຶ່ງເຖິງແມ່ນວ່າ ຈະດຳເນີນກິດຈະກຳປະເພດດຽວກັນ ຫລືຂະໜາດດຽວກັນ ແລະ ໂດຍເຈົ້າຂອງໂຄງການດຽວກັນ ກໍ່ຕາມ, ຖ້າຕົກໃນກໍລະນີນີ້, ເຈົ້າຂອງໂຄງການຕ້ອງສ້າງ ບສຕສ ຫລື ບປຜສ ແລ້ວແຕ່ຂະໜາດຂອງໂຄງການ ທີ່ຈະຕົກຢູ່ໃນ ກຸ່ມ 1 ຫລື ກຸ່ມ 2 ໂດຍຕ້ອງສ້າງເປັນບົດລາຍງານສະເພາະສໍາລັບແຕ່ລະຂົງເຂດພື້ນທີ່ ໝາຍວ່າບໍ່ໃຫ້ສ້າງເປັນບົດລາຍງານສະບັບດຽວ ໂດຍກວມເອົາຫລາຍພື້ນທີ່ແຕກຕ່າງກັນ, ຍົກເວັ້ນໃນບາງກໍລະນີ ຫາກໄດ້ຮັບການເຫັນດີຢັ້ງຢືນຂອງຂະແໜງການຊັບພະຍາກອນທຳມະຊາດແລະສິ່ງແວດລ້ອມໃນລະດັບທີ່ກ່ຽວຂ້ອງເສຍກ່ອນ;

3. ສໍາລັບໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ທີ່ສະເໜີພັດທະນາໃນຂົງເຂດ ເຂດເສດຖະກິດພິເສດ ຫລື ເສດຖະກິດສະເພາະ, ນອກຈາກ ການສ້າງ ບປຜສ ສໍາລັບກວມລວມຂອບເຂດທັງໝົດໃນຂົງເຂດ ເສດຖະກິດພິເສດ ຫລື ເສດຖະກິດສະເພາະ ໂດຍເຈົ້າຂອງເຂດດັ່ງກ່າວນັ້ນແລ້ວ ເຈົ້າຂອງໂຄງການຍ່ອຍແຕ່ລະໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ຍັງຈະຕ້ອງໄດ້ເຮັດການປະເມີນຜົນກະທົບຕໍ່ສິ່ງແວດລ້ອມ ສະເພາະພສໍາລັບແຕ່ລະໂຄງການຍ່ອຍອີກ ແລ້ວແຕ່ແຕ່ລະປະເພດໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ທີ່ສະເໜີມານັ້ນ ວ່າຈະຕົກຢູ່ໃນປະເພດໂຄງການ ໃນກຸ່ມໃດ ຄື ຕົກຢູ່ໃນ ກຸ່ມ 1 ຕ້ອງສ້າງ ບສຕສ ແລະ ຖ້າຕົກໃນກຸ່ມ 2 ຕ້ອງສ້າງ ບປຜສ ໂດຍຕ້ອງປະຕິບັດໃຫ້ຖືກຕ້ອງ ແລະ ສອດຄ່ອງ ຕາມລະບຽບຫລັກການ ທີ່ກຳນົດໄວ້ໃນ ຄຳແນະນຳ ແລະ ບົດແນະນຳທາງດ້ານວິຊາການທີ່ກ່ຽວຂ້ອງ;

4. ສໍາລັບໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ຖ້າຕົກຢູ່ໃນກໍລະນີ ເປັນໂຄງການທີ່ມີການທົດແທນຄ່າເສຍຫາຍ ແລະ ການຍົກຍ້າຍຈັດສັນປະຊາຊົນ ພາຍໃຕ້ຂໍ້ບັນຍັດທີ່ກຳນົດໄວ້ໃນ ດຳລັດວ່າດ້ວຍການທົດແທນຄ່າເສຍຫາຍ ແລະ ການຍົກຍ້າຍຈັດສັນປະຊາຊົນຈາກໂຄງການພັດທະນາ ສະບັບເລກທີ 192/ນຍ, ລົງວັນທີ 7/7/2005 ຫລື ນິຕິກຳອື່ນທີ່ປ່ຽນແທນ, ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆນັ້ນ ຖືວ່າມີຄວາມຈຳເປັນ ຕ້ອງສ້າງ ບປຜສ ຢ່າງດຽວ ຊຶ່ງເຈົ້າຂອງໂຄງການ ຕ້ອງດຳເນີນ ໃຫ້ຖືກຕ້ອງ ແລະ ສອດຄ່ອງ ຕາມຂໍ້ບັນຍັດທີ່ກຳນົດໄວ້ໃນ ຄຳແນະນຳ ແລະ ບົດແນະນຳທາງດ້ານວິຊາການທີ່ກ່ຽວຂ້ອງ ໂດຍບໍ່ຕ້ອງພິຈາລະນາວ່າ ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ດັ່ງກ່າວ ຈະຖືກຈັດຢູ່ໃນປະເພດໂຄງການໃນກຸ່ມ 1 ຫລື ກຸ່ມ 2 ຫລື ບໍ່ນອນຢູ່ໃນຢູ່ບັນຊີ ເລີຍກໍຕາມ;

5. ສໍາລັບໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆ ເຖິງແມ່ນວ່າຈັດປະເພດໂຄງການ ຕົກຢູ່ໃນກຸ່ມ 1 ກໍຕາມ, ຖ້າຕົກຢູ່ໃນກໍລະນີເປັນໂຄງການທີ່ມີຕັ້ງຢູ່ໃນພື້ນທີ່ມີຄວາມສຳຄັນທາງດ້ານສິ່ງແວດລ້ອມສັງຄົມ ແລະ ສິ່ງແວດລ້ອມທຳມະຊາດ ເຈົ້າຂອງໂຄງການ ຕ້ອງສ້າງ ບປຜສ ຢ່າງດຽວ ຈຶ່ງຈະໄດ້ຮັບການພິຈາລະນາ ອອກໃບຢັ້ງຢືນກ່ຽວກັບສິ່ງແວດລ້ອມ ໃຫ້ໂຄງການລົງທຶນ ແລະ ກິດຈະການຕ່າງໆນັ້ນ.

- ພື້ນທີ່ມີຄວາມສຳຄັນທາງດ້ານສິ່ງແວດລ້ອມສັງຄົມ ແລະ ສິ່ງແວດລ້ອມທຳມະຊາດ ກວມເອົາພື້ນທີ່ ດັ່ງລຸ່ມນີ້:
- ພື້ນທີ່ທັງໝົດ ຫລື ສ່ວນໃຫຍ່ຂອງພື້ນທີ່ ໄດ້ຖືກປະກາດເປັນປ່າປ້ອງກັນ, ປ່າສະຫງວນ ຕາມກົດໝາຍວ່າດ້ວຍປ່າໄມ້ ສະບັບເລກທີ 06/ສພຊ, ລົງວັນທີ 24 ທັນວາ 2007 ຫລື ນິຕິກຳອື່ນທີ່ປ່ຽນແທນ;
 - ພື້ນທີ່ທັງໝົດ ຫລື ສ່ວນໃຫຍ່ຂອງພື້ນທີ່ ໄດ້ຖືກປະກາດເປັນ ເຂດອະນຸລັກພັນສັດນ້ຳ ແລະ ສັດປ່າ ໂດຍສອດຄ່ອງກັບກົດໝາຍວ່າດ້ວຍສັດນ້ຳ ແລະ ສັດປ່າ ເລກທີ 07/ສພຊ, ລົງວັນທີ 24 ທັນ ວາ 2008 ຫລື ນິຕິກຳອື່ນທີ່ປ່ຽນແທນ;
 - ພື້ນທີ່ທັງໝົດ ຫລື ສ່ວນໃຫຍ່ຂອງພື້ນທີ່ ໄດ້ຖືກປະກາດເປັນ ເຂດມໍລະດົກແຫ່ງຊາດທາງດ້ານວັດທະນະທຳ ແລະ ປະຫວັດສາດ ໂດຍສອດຄ່ອງກັບກົດໝາຍວ່າດ້ວຍມໍລະດົກແຫ່ງຊາດ ເລກທີ 08/ສພຊ, ລົງວັນທີ 9 ພະຈິກ 2005 ຫລື ນິຕິກຳອື່ນທີ່ປ່ຽນແທນ ;
 - ພື້ນທີ່ທັງໝົດ ຫລື ສ່ວນໃຫຍ່ຂອງພື້ນທີ່ ໄດ້ຖືກປະກາດເປັນ ແຫລ່ງນ້ຳສະຫງວນ ໂດຍສອດ ຄ່ອງກັບ ກົດໝາຍ ວ່າດ້ວຍ ນ້ຳ ແລະ ຊັບພະຍາກອນແຫລ່ງນ້ຳ ເລກທີ 02/ສພຊ, ລົງວັນທີ 11 ມັງກອນ 1996 ຫລື ນິຕິກຳອື່ນທີ່ປ່ຽນແທນ; ແລະ
 - ພື້ນທີ່ອື່ນໆ ທີ່ກົດໝາຍໄດ້ປະກາດ ເປັນພື້ນທີ່ມີຄວາມສຳຄັນ ທາງດ້ານສິ່ງແວດລ້ອມສັງຄົມ ແລະ ສິ່ງແວດລ້ອມທຳມະຊາດ ໃນແຕ່ລະໄລຍະ.

Annex 7 - Weir Subprojects

Planning and construction phase

Weirs subprojects funded by the PRF are small structures on streams costing less than US\$50,000 and usually benefiting a single village, but sometimes several adjacent villages. They typically consist of both the structure and short sections of canal to divert water for village irrigation, but many are simple weirs that store water in the river channel for use in the dry season (for vegetable crops or water for animals).

Weirs and water control structures are constructed from either reinforced concrete or mass concrete and will usually be less than 10 meters wide and from 1 to 1.5 meters high with timber gates for sedimentation control. Irrigation canals may be lined with concrete or unlined and are usually about 1 m wide. The size of the weirs build is dependent upon the subproject budget ceiling (\$60,000).

OP 4.37 - Safety of Dams classifies dams less than 15m in height, with no expected increase in capacity, as “small dams”, requiring generic dam safety measures designed by qualified engineers. PRF weir sub-projects fall into this category. These generic dam safety measures include an environmental assessment (EA) for the project to determine that there would be no or negligible risk of significant adverse impacts due to potential failure of the structure to local communities and assets, including assets to be financed as part of the proposed project. PRF has standard designs for weirs (based on standard designs of the Department of Irrigation, Ministry of Agriculture and Forestry) that are adjusted to suit different stream width and depths. Where these designs cannot be used directly, they are used as a guideline for a custom design prepared by the qualified PRF District Engineer in each project area and approved by both the District Irrigation Office and the PRF Provincial Engineer. All designs and specifications are checked and approved, and stamped by the Department of Irrigation, Ministry of Agriculture and Forestry, before procurement. Additionally, there is a production manual for irrigation works which covers all aspects of weirs and micro-irrigation systems.

Procurement is by competitive bidding, and a contractor is hired to implement weir construction subprojects. A Village Implementation Team (VIT) manages the construction and for larger subprojects will employ a Community Construction Supervisor (technician) for daily supervision of the contractor, reporting to the District Engineer who has an overall responsibility for supervision and quality management. The PRF District Engineer will inspect the construction site weekly.

The District Engineer first carries out the screening of potential environmental impacts using the Environmental Evaluation Control Sheet form provided in the ESMF, which is now revised to explicitly mention that the screening of subprojects and the environmental categorization would be carried out in line with the OP 4.01. An Initial Environmental Examination (IEE) may be conducted if the screening finds that the potential impact is considered small and manageable, while a full Environmental Assessment would be carried out if the expected impact is above the threshold provided in the ESMF. Under the PRFII, all weir construction subprojects were found to require only an IEE through which potential environmental issues were identified and mitigation measures were incorporated into the design as per the project ESMF. An ECOP was developed (Table 4.3, Annex 4) and will continue to be used for all PRF subprojects including for weir construction under the PRFIII. During implementation the District Engineer uses “Quality Checklists” (Table 4.8 in this ESMF) to document compliance with the designs and specifications and the Community Construction Supervisor used a Construction Site Log Book to record daily activities and instructions to the contractor. The subprojects are jointly inspected by the VIT, PRF District Engineer and District Authorities (Rural Development and Irrigation Office) before each payment is made to the contractor, through which the quality of the construction as well as the compliance with the ECOP will be certified and the completion certificates issued.

The PRF financed, and would continue to finance only about 10 weir construction subprojects per year on small streams and rivers, with each serving only one or a small cluster of villages. Population density is also low in poor rural areas. It is highly unlikely that the PRF investments in weirs will cause cumulative impacts although each subproject will continue to be monitored to assess impacts relative to other close-by subprojects that may be initiated in the area. However Gravity Fed 137 water supply systems will continue to be financed and these are now classed as dams as they create a small weir on the river to harvest water. PRF II had around 243 constructed and renovated around 137.

Table 1: Numbers and types of Weir subprojects from PRF II for irrigation projects

| Subprojects that involve construction or rehabilitation of weirs | Number |
|--|-----------|
| Irrigation Construction | 7 |
| Weir Construction | 19 |
| Weir renovation | 2 |
| Earth Dike Construction | 2 |
| Earth Dike Renovation | 2 |
| TOTAL | 32 |

Post-construction phase.

The project has an operation manual in Lao language which has been distributed to district PRF teams. The PRF strengthened post-construction monitoring through conducting two site visits post-construction to monitor operation. These will be conducted jointly with District Authorities including representatives of competent agencies and district PRF staff in each district, with findings reported to capture lessons learned. Additionally, training needs will be scoped during these visits which can then be incorporated into the project.

These visits will also be utilized to check environmental and social matters that may have arisen as a result of any weir subproject. Such issues could include proper operation of sediment controls to ensure flushing is conducted at proper intervals in line with the manual, checks that stagnant water behind weirs has not become a breeding ground for disease vectors etc. Given the small size of the subprojects, it is not considered that water quality would be an issue, although in the unlikely event that water quality could have been compromised, testing of samples and follow-up action based upon results would ensue.

ANNEX 8

PEST MANAGEMENT PLAN (PMP)

Revised – April 2015

TABLE OF CONTENTS

INTRODUCTION 87

SECTION I. POLICY AND REGULATIONS..... 873

SECTION II. KEY ISSUES AND MITIGATION MEASURES..... 894

Annex 1: The “Non eligibility list”Error! Bookmark not defined.

Annex 2: Regulation number 2860/MAF 92

Annex 3: List of eligible and banned Pesticide in Lao PDR.103

LIST OF ACRONYMS

| | |
|--------|--|
| CDD | Community Driven Development |
| CRPF | Compensation and Resettlement Planning Framework |
| DAFO | District Agriculture and Forestry Office |
| DoA | Department of Agriculture |
| DRM | Disaster Risk Management |
| EGPF | Ethnic Group Policy Framework |
| EIA | Environmental Impact Assessment |
| EPA | Environment Protection Agency |
| ESMF | Environmental and Social Management Framework |
| FAO | Food and Agriculture Organization |
| GHS | Global Harmonized System |
| GoL | Government of Lao PDR |
| IPM | Integrated Pest Management |
| JICA | Japan International Cooperation Agency |
| JSDF | Japanese Social Development Fund |
| KB | Kumban |
| LUFSIP | Lao Upland Food Security Improvement Project |
| MAF | Ministry of Agriculture and Forestry |
| MIS | Management Information System |
| NTFP | Non Timber Forest Product |
| OP | Operational Policy (of the World Bank) |
| O&M | Operation and Maintenance |
| PAFO | Provincial Agriculture and Forestry Office |
| PDO | Project Development Objective |
| PMP | Pest Management Plan |
| POM | Project Operations Manual |
| PRF | Poverty Reduction Fund |
| PRF I | PRF Phase I |
| PRF II | PRF Phase II |
| WB | World Bank |
| WHO | World Health Organization |

INTRODUCTION

Annex 8 is the Pest Management Plan (PMP). It aims to provide basic knowledge to the national, provincial and district government, the PRF team, consultants, Kumban (KB) staff, village officials, private and public sector agencies with adequate guidance for effectively addressing the safeguard issues in line with OP 4.09. The process will be implemented as part of the PRF project cycle and fully integrated into the subproject selection, approval, implementation, and monitoring and evaluation process. The PMP describes key issues related to procure and use of pesticide and chemical fertilizer and identified mitigation measures related to prohibited items, training, and guidelines related to safe use of pesticides. This PMP is adopted from ESMF of Lao Upland Food Security Improvement Project (LUFSSIP) which was developed as part of PRF activity implementation support. The PMP will be applicable for all PRF III activity related to agriculture infrastructure development under the Component 1 and livelihood pilot grant funded under Japanese Social Development Fund (JSDF). The simplified PMP will be implemented along with other safeguard instruments developed for PRF III such as ESMF, CRPF and EGPF.

Village visits indicated that no chemical based fertilizers and pesticides were being used in village garden production. Some villages were experimenting with a natural locally produced fertilizer which uses a local plant (Kua Khao Hong) mixed with sugar and water and left for a number of days. The solution is added to the plants which does not kill insects but keeps them away from the vegetable gardens. There are no adverse impacts to the plants themselves and no impacts on palatability. Animal wastes are also utilized as natural fertilizers. Some villages also were experimenting with more advanced systems for localizing the waste from livestock, especially goats so that it could be collected and used on household gardens.

Responsible agency: The PRF staff at central and local levels will be responsible for implementation of the PMP and ensuring full compliance, including keeping proper documentation in the project file for possible review by the World Bank.

This document is considered a living document and could be modified and changed as it is appropriated. Close consultation with the World Bank and clearance of the revised PMP will be necessary.

SECTION I. POLICY AND REGULATIONS

World Bank's safeguard policy on pest management (OP 4.09)

OP 4.09 (pest management). The objective of this policy is to minimize and manage the environmental and health risks associated with pesticide use and promote and support safe, effective and environmentally sound pest management. The OP 4.09 was not triggered in the PRF I as the project was not involved and did not support any use of pesticide and/or chemical fertilizer. A review of safeguards issues in PRF I, however, has shown that providing agriculture infrastructure may provide indirect support to the use of chemical fertilizer and pesticide in some project areas. Differently from PRF I, PRF II will support livelihoods activities through the JSDF in selected communities with a view of testing models for effective and sustainable rural livelihood improvements for poor communities.

While the project will not procure and promote use of chemical pesticides and fertilizers, which are included in the *non-eligibility list*, it may be unrealistic to completely prevent all farmers from applying chemical inputs. Specifically, rehabilitation of irrigation, building of small irrigation/agriculture production, and/or control of infestation of diseases may involve the use of

pesticides and/or procurement of small amount of pesticides, herbicides, and insecticides. To mitigate this potential impact this simplified PMP has been prepared outlining clear regulations and procedures for management of pesticides and/or toxic chemical as well as providing knowledge and training on health impacts and safe use of pesticides and/or, when possible, promotion of non-chemical use alternatives such as organic farming. The PRF II will work closely with agriculture sector to apply the Conservation Agricultural Technology approved by Ministry of Agriculture and Forestry (MAF) in 2006 for the agricultural activities. This PMP is adopted and simplified from the PMP prepared for LUFSSIP project.

Government regulation related to pest management

In March 2000, with support from Japan International Cooperation Agency (JICA) and Food and Agriculture Organization (FAO), the MAF established the Regulation number 0886/MAF and recently updated in June 11, 2010 into the regulation number 2860/MAF (Annex 2) on Pest Management in Lao PDR. The regulation was developed based on the WHO recommended Classification of Pesticide by Hazard and Guideline to Classification 1994-1995. The GoL had registered in January 2010 the companies who import pesticides, fertilizers and seeds into Lao PDR. Registered pesticide has been adjusted in May 2010 based on the new regulation. The Department of Agriculture (DoA) under MAF is mandated to oversight all the usage of pesticide.

SECTION II KEY ISSUES AND MITIGATION MEASURES

Key issues related to use of pesticide and chemical fertilizer

The PMP is developed to support project community and a responsibility of all parties to support the implementation and proper applicability of the WB OP 4.09. Negative impacts from the use of pesticide and chemical fertilizers are expected to be minor and localized and could be mitigated during the planning and implementation of the project. Given that pesticide and chemical fertilizer are normal practice for many farmers PRF does not promote the use of either. However, it is important for PRF staff and local communities to understand the nature of such activities which could possibly encourage people to reduce the use pesticide and chemical fertilizer.

Below summarizes the possible activities which could be associated with the use of pesticide and chemical fertilizer under PRF III.

- Implementation of subprojects related to irrigation (new and rehabilitation) may indirectly involve the use of pesticides and or chemical fertilizer. It often occurs when farmers aim to increase their productivity as their land can now be irrigated. It also obvious when intensive agriculture has been introduced given an opportunity of water is available in their agriculture areas.
- Livelihoods and nutrition pilot would be implemented in a select number of communities with a view of testing models for effective and sustainable rural livelihood improvements for poor communities. This activity could encourage community engagement with intensive on-farm activities such as a rice production, vegetable garden, industry tree plantation, and livestock husbandry where pesticide and chemical fertilizer could be applied by local communities.

From the experience of on-going project, many target villages are using pesticide and chemical fertilizer on their agriculture activity and rubber plantation which has already polluted nearby streams.

Actions for mitigation

The negative impacts from the use of pesticide and chemical fertilizer from PRFIII activities would be minor and localized and could be mitigated during the planning and implementation of the project. During the consultation stage with Kumbans, there are also opportunity to enhance positive impact during the planning and selection of the subprojects. Below summarizes the activities to be carried out during the planning and implementation of PRF III on pest management.

(a) Prohibition

To avoid adverse impacts due to pesticides, procurement of pesticides will be prohibited and this has been included in the “*non-eligibility list*”.

(b) PRF staff training

The PRF III will continue providing basic knowledge on alternative options for agriculture development and /or livelihood activities, including safe use of pesticides and other toxic chemicals. Budget would be allocated for project staff training to understand 1) overall policy on Pest Management (government and Bank policy); 2) basic knowledge on possibly negative impact on environmental and health from the use of pesticide and chemical fertilizer; and 3) basic knowledge on how to prevent it including what are the prohibited items in the country for pesticide and chemical fertilizer, how to prevent or mitigate the negative impact from the use etc. (staff training could be done jointly with other topics). This training would be provided for subprojects that involve the use of fertilizer, pesticides, and/or toxic chemicals.

(c) *Provide knowledge to farmers*

Prior consultation would be provided to project KBs. Pest management will be included as one topic for village consultation meeting at the KB. If likely that the agriculture support would be priority for a particular village either agriculture infrastructure and livelihood support, training on pest management should be provided in the following areas:

- *Pest management training:* The objective is to provide basic knowledge to the target farmer on prohibited type of pesticide, the negative on the use of pesticide and chemical fertilizer both on environmental and human health, and how to mitigate the negative impact from the usage of pesticide and chemical fertilizers if there is a need for the use. It is also to inform farmers that, the GoL is not intended to support the use of any pesticide and chemical fertilizer in any agricultural productivity but promote conservation agriculture instead; however the country has experienced severe pest invasions, and could lead to the usage of pesticide and chemical fertilizer in some cases to limit losses and damages to the agriculture product. The procurement of pesticide and chemical fertilizer will not be funded under PRF III budget; however any PRF III villages that get support for either agriculture infrastructure and livelihood activity through JSDF would need to have training on pest management described under this PMP.
- *Training on GoL regulation:* The country is experienced in the use of pesticide and chemical fertilizer and learnt from its neighboring countries. The PRF II AF trained the target farmers on the Regulation number 2860/MAF on Pesticide Management before the subproject can be implemented and subject to compliance with the Bank safeguard policy OP 4.09 on Pest Management.
- *Technical training;* This training would aims at providing the target farmers to understand clearly the technical aspect of pesticide and skill in using them such as what are the eligible and prohibited items of pesticide in Lao, the level of negative impact of each eligible item, how to use them, how to protect and minimize the negative impact while using them, how to keep them before and after used etc. Thus the trainer would be someone from PAFO or DAFO who is knowledgeable on this. PRF III will finance the training cost and per diem and transportation cost for the trainer if needed.
- *Procurement, storage, and usage of pesticide;* Procurement, storage and monitoring of the usage of pesticide financing under LUFSP is fully a responsibility of DOA. The DOA should strictly follow with articles 18 and 19 of the MAF's regulation number 2860/MAF for procuring the pesticide; articles 20, 21 and 22 for transportation, storage and trans-boundary transportation of pesticides; and articles 23 and 24 for the safety use of pesticide. The DOA or user may refer in addition to the article 25 and 26 for the storage and usage of pesticide.
- *Continued monitoring of pesticide use:* As part of the regular monitoring of project activity, the World Bank and PRF teams will continue to monitor changes in pesticides, insecticides and chemical fertilizers use in all project related activities. Programs and trainings will be specifically amended to address any such changes.

Promotion of non-chemical agriculture

The PRF III has been designed also to promote conservation of natural resources when possible. It is anticipated that linking PRF III agriculture's activity with conservation agriculture technique is important for improving the quality of life among farmers. Given that most of PRF subprojects are located in remote area and sustainable use of natural resources would be critical for their livelihood development and poverty reduction. If protected areas or critical natural habitats are located nearby, it

is necessary to also take measures to minimize potential negative impacts and/or enhance positive impacts through the community-driven process. In this context, a “conservation agriculture technique” should be introduced for target communities. During the planning process, action will be carried out jointly between the PRF and DAFO to plan and train farmers.

Implementation arrangement and budget

(a) Planning and implementation


In close cooperation with PAFO, PRF staff at central level will be responsible for providing training to PRF staff at province and local level and Kumban facilitator during the consultation and planning stage. Budget for training will be included in the subproject cost or capacity building as appropriate.

(b) Monitoring

PRF staff at local level will work with DAFO staff for the monitoring of the use of pesticide in target community including: a) ensure the procured pesticide is not in the non-eligibility list provided in Annex 1; b) ensure procured pesticides are properly kept and transport them to the target area; c) ensure training delivery to the user before distribution; and d) monitor compliance usage of pesticide according to the MAF’s regulation number 2860/MAF (in Annex 2). The World Bank and PRF team at central will carry out a joint Implementation Support Mission in every six months period to review the compliance. The World Bank will use its Pest Management Guidebook as a standard to monitor compliance of the use of pesticide procured under the project.

Annex 1: Regulation number 2860/MAF

People's Democratic Republic
Peace Independence Democracy Unity Prosperity



Ministry of Agriculture and Forestry

No 2860/MAF
Vientiane Capital, date June 11, 2010

**Regulation
on the control of pesticides in Lao PDR**

- Pursuant to the Law on Agriculture No. 01/98/NA, dated 6 November 1998.
- Pursuant to the Environment Protection Law No. 02/99/NA, dated 3 April 1999.
- Pursuant to Law on Local Administration No. 03/NA of 5 October 2003;
- Pursuant to the Law on Food No. 04/NA, dated 15 May 2004.
- Based upon the proposal of the Minister of Agriculture and Forestry No./MAF, dated.....2009.

The Minister of Agriculture and Forestry issues the Regulation on the Control of Pesticide as follows:

**PART I
General provision**

Article 1. Objective

This regulation defines the principles, rules and measures for controlling activities involved with pesticide in Lao PDR in order to protect human health, animal plant and environment, and to be consistent with agreements and international regulations.

Article 2. Output

This regulation is as a tool of monitoring, control of the production processing, import-export, distribution, transport, storage, usage, destroy, disposal properly and safety to human health, animal plant and environment; to ensure the usage, making the business units and pesticide activities smoothly undertake accordingly to the defined rules and principles.

Article 3. Definitions

Terms used in this regulation shall be interpreted as follows:

Pesticide means any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or substances which may be administered to animals for the control of insects, arachnids or other pests in or on their bodies. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport.

Banned pesticide means a pesticide for which all uses have been prohibited by final regulatory action, in order to protect human health or the environment. The term includes a pesticide that has been refused approval for first-time use, or has been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process,

and where there is clear evidence that such action has been taken in order to protect human health or the environment.

Unwanted plant means the plant is not in the target of growing.

Pesticide industry means all those organizations and individuals engaged in manufacturing, formulating or marketing pesticides and pesticide products.

Trader means anyone engaged in trade, including export, import and domestic distribution.

Formulation means the combination of various ingredients designed to render the product useful and effective for the purpose claimed; the form of the pesticide as purchased by users.

Active ingredient means the biologically active part of the pesticide.

Registration means the process whereby the responsible national government or regional authority approves the sale and use of a pesticide following the evaluation of comprehensive scientific data demonstrating that the product is effective for the intended purposes and does not pose an unacceptable risk to human or animal health or the environment.

Label means the written, printed or graphic matter on, or attached to, the pesticide or the immediate container thereof and also to the outside container or wrapper of the retail package of the pesticide.

Manufacturer means a corporation or other entity in the public or private sector or any individual engaged in the business or function (whether directly or through an agent or entity controlled by or under contract with it) of manufacturing a pesticide active ingredient or preparing its formulation or product.

Distribution means the process by which pesticides are supplied through trade channels to local or international markets.

Advertising means the promotion of the sale and use of pesticides by printed and electronic media, signs, displays, gift, demonstration or word of mouth.

Personal protective equipment means any clothes, materials or devices that provide protection from pesticide exposure during handling and application.

Disposal means any operation to recycle, neutralize, destruct or isolate pesticide waste, used containers and contaminated materials.

Residue means any specified substances in or on food, agricultural commodities or animal feed resulting from the use of a pesticide. The term includes any derivatives of a pesticide, such as conversion products, metabolites, reaction products and impurities considered to be of toxicological significance. The term "pesticide residue" includes residues from unknown or unavoidable sources (e.g. environmental) as well as known uses of the chemical.

Risk is a function of the probability of an adverse health or environmental effect, and the severity of that effect, following exposure to a pesticide.

Toxicity means a physiological or biological property which determines the capacity of a chemical to do harm or produce injury to a living organism by other than mechanical means.

Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

Natural enemies' means disease and insect usefully controlling pest in the nature include predators, parasitoids, and pathogens.

Article 4. Scope

This regulation applies to all persons, juristic persons or organizations engaged in manufacturing, importing, exporting, selling, using, transport, storage, destroying and disposal of pesticide in Lao PDR.

PART II Business on pesticides

Article 5. Business on pesticides

A person, juristic person or organization having the intention to conduct business on pesticide shall submit a request licenses through agriculture sector and others related sector for getting an approval and shall register its enterprise with industrial and commerce sector as determined in the Law of Enterprise.

Article 6. Import and export, selling license

Registered Pesticide prior to import and export shall be applied document to Agriculture Sector prior import or export 3 working days, 20 days for selling.

Article 7. Recording

A Person, juristic person or organization intend to import, export, manufacture, store pesticide shall record on whole of quantities of pesticides and other related information for using as a statistic providing to pesticide management.

Article 8. Responsibility on pesticide business

A person conducting pesticide business shall ensure the safety to minimize risks to human health, animal and the environment. In the case of accident where pesticide caused damage to human, animal and environment the pesticide business operator shall be responsible according to the laws. In addition the pesticide business operator shall be cooperated and facilitated to pesticide inspectors and other related authorities.

PART III Registration of pesticides

Article 9. Registration of pesticide

All pesticides that are produced, imported, exported, distributed and used in Lao PDR must be registered with the Department of Agriculture, Ministry of Agriculture and Forestry.

Article 10. Exception pesticide registration

1. Registration is not required for botanical pesticide that are not packed for sale;

2. Provisional registration can be granted for products imported for the purpose of research, trial or exhibition, but need to be requested from DOA, MAF, with requires evidence that the products register in the country of origin.

Article 11. Qualifications for pesticide registration

A person, juristic person or organization who wants to register pesticide shall have the following qualifications:

1. Person holding license as described in article 19 of this regulation;
2. Imported pesticide shall be registered in exported country.

Article 12. Application for registration

A person, juristic person of organization having intention to register pesticide shall submit application to pesticide registration committee in Ministry of Agriculture and Forestry.

The registration application shall consist of following documents:

1. Copy of enterprise registration certificate;
2. Copy of pesticide registration certificate of exporting country or/and original country;
3. Nomination letter for registration from manufacturer or exporting country;
4. Instruction of pesticide use;
5. Sample of pesticide.

Article 13. Registration consideration

Pesticide registration Unit of DOA shall consider application whether to register or denied registration within 60 days from the date the application is received. In the case of denial of registration, the written notice shall be given to applicant by the DOA.

Article 14. Pesticide registration certificate

Pesticide registration certificate is an official document issued by Director General of DOA, Ministry of Agriculture and Forestry and valid for two year. Prior two months of expiration, the Certificate Owner shall submit a request for renewal certificate to the DOA. The application and process of consideration will be proceed as described in article 12 and 13 of this regulation.

Article 15. Withdrawal of pesticide registration certificate

The pesticide registration certificate may be withdrawn prior to its expiration date by the Director General of Department of Agriculture in any following case:

- there is a material violation of this regulation or other related laws by the certificate owner or his authorized representatives;
- the pesticide is no longer effective for its intended use;
- the pesticide has been withdrawn from the market;
- in case of cancellation of a registration, the Registration Committee shall fix a reasonable phasing-out period for the distribution and use of the product concerned.

Withdrawn certificate of registration shall be informed to related agencies.

Article 16. Pesticide registration Unit

Pesticide registration Unit is a unit under administration of the Department of Agriculture, Ministry of Agriculture and Forestry, which has the main role and task as following:

1. Review application for registration of pesticide and take registration decision;
2. Regularly review the list of registered of pesticide to determine whether they still meet the requirements, taking into consideration the latest scientific information;
3. Edit and approve labels of pesticide;
4. Implement others right and task as described in related legislations.

PART IV

Management of production, import, export, distribution, transportation, Storage and transit of pesticide

Article 17. Formulating pesticide

A person, juristic person or organization having the intention to formulate pesticides shall submit an application to Ministry of Agriculture including socio-economy document and production technique.

Article 18. Import-Export of pesticide

Only registered pesticides can be imported or exported. Registration has to be applied for from the Department of Agriculture, Ministry of Agriculture and Forestry and shall comply with other related laws, exclude the pesticide determined in article 10 of this regulation.

Article 19. Distribution or selling pesticide

Distributors or traders must have criteria as following:

1. Attended in training of pesticide and have related certificate;
2. Have material safety data sheets, instruction of pesticide for customer using properly;
3. To ensure there are not harmful to neighboring people or environment;
4. To supply plant protection clothes for customers;
5. Storage must strictly follow article 21;
6. Must have records purchase orders and selling.

Prohibitions of distributors or traders of pesticide are following:

1. Distribute without license of related authorities;
2. Sale pesticides which:
 - did not register in Lao PDR
 - have exceeded their expiry date, or have changed their physical appearance or behavior, such as color, sedimentation, inability to disperse, etc.... or container break or leak container;
 - lack of sign or was destroyed that could not read;
 - repack for sale

Article 20. Transportation

Transporters/carriers of pesticide shall adhere to the following rules:

- 1) For consignment of Pesticides, either of same or different groups, exceeding 100 liters (fluids) or 1000 kg (solids), separate documentation has to be issued and be kept with the driver. The documentation shall have the following content:
 1. Name, address, phone number of owner and shipper;
 2. Trade name or common name of transported Plant Protection Products;
 3. Formulation types and concentrations of Plant Protection Products transported;
 4. Volume of Plant Protection Products;
 5. Emergency procedures, in the case of breakage or spill;
 6. A safety data sheet for each of the materials transported.
- 2) For consignments greater than 1000 liters or 1000 kg the transport route must be declared in advance;
- 3) Plant Protection Products carried by means of public transport, shall not exceed 20 l for liquids or 20 kg for solids. However, they shall be wrapped properly and kept separately from the passengers and other goods;
- 4) The drivers of vehicles carrying Plant Protection Products shall be selected properly – they shall be reliable and competent;

- 5) Prohibit to transport pesticides with living organism and others goods.

Article 21. Storage

If pesticides are store more than 10 liters/kilogram the following requirement should be met:

- 1) A pesticide storage facility should be located in an area where flooding is unlikely and far from people and domestic animal farm at least 100 m;
- 2) All pesticides must be kept in a facility that can be locked and posted as a pesticide storage area;
- 3) Kept pesticide far from sources of heat or directly in the sun;
- 4) Separate pesticide from others goods;
- 5) Lay out pesticide by group and hazard classification;
- 6) Kept pesticide in original containers with label;
- 7) Absorbed substances such as charcoal, sawdust, sand;
- 8) Take care floor clean and dry, clean up when spillage of pesticide occurred, leaking from container;
- 9) Soap and water are available for washing when contact with pesticide;
- 10) Use stand or pallets for placing pesticide and avoid direct on floor;
- 11) Kept empty containers in safety place prior to disposal.

Article 22. Transition

All pesticides passing through Lao PDR in transit shall comply with relevant bilateral or multilateral agreements to which Lao PDR is a party.

PART V Use of pesticide and disposal

Article 23. Use of pesticide

A person intending to use pesticide shall recognize its characteristic and pay attention to following matters:

1. Use Integrated Pest Management especially controlling pest by using natural enemies;
2. Use pesticide in proper way and implement as described on the label;
3. Wear protective equipment whenever apply pesticide; employers should provide proper equipment including training on pesticide application for employees;
4. Ensure preventing dangerous effects of pesticide to human health, animal and environment;
5. Any accident involving pesticides that requires specialist assistance or poses a threat to human health or the environment should immediately be reported to the relevant authority.

Article 24. Disposal of pesticide

Substandard pesticide, counterfeit, expired products, pesticide waste including empty containers shall be properly disposed or buried in an approved landfill without effecting to environment, the location is on flat ground, far from water resource and well or underground water and follow technical guideline as specified by Water Resources and Environment Administration (WREA).

PART VI Packaging Labeling and Advertising

Article 25. Packaging

Repackaging of pesticide is prohibited unless specific permission has been obtained from pesticide registration unit, DOA.

Pesticides should be in original package which safety while import, transport, store or distribute and ensure safe when handle to protect harmful to human health, animal and environment.

Article 26. Labeling

All packaging of pesticide should be affixed label on or attached label in the pesticide container. The label must be in Lao language and/or English which could easily to read, clear and does not easily to tear.

1. The contents and form of label shall be approved by the pesticide registration unit, and contains the following information:
 - 1.1 Trade name;
 - 1.2 Chemical (common) name, formulation and concentration of active ingredient;
 - 1.3 Purpose of usage, e.g. which crops and pests;
 - 1.4 Dosage and mode application;
 - 1.5 Signs and instructions see paragraph 2 of this article;
 - 1.6 Directions for storage, mixing, usage, packaging and recommended personal protection from hazards;
 - 1.7 Pre-harvest interval;
 - 1.8 Warnings;
 - 1.9 Symptoms of poisoning, methods of mitigation, directions for physician;
 - 1.10 Hazard classification (WHO or GHS);
 - 1.11 Name of producer;
 - 1.12 Volume of package;
 - 1.13 Production or expiry date;
 - 1.14 License number;
2. Instruction for labeling
 - 2.1 Pesticide under WHO hazard Class Ia must be labeled with a clear danger sign, the skull and crossed bones, and bear the text 'extremely toxic' which should be accompanied by the appropriate signs as under 3 below.
 - 2.2 Pesticide under WHO hazard Class Ib must be labeled with a clear danger sign, the skull and crossed bones, and bear the text 'highly toxic', accompanied by the appropriate signs as under 3 below.
 - 2.3 Pesticide under WHO hazard Class 2 must be labeled with a clear danger sign, flash, and bear the text: 'dangerous', accompanied by the appropriate signs as under 3 below.
 - 2.4 Pesticide under WHO hazard Class 3 must bear the text: 'attention' accompanied by the appropriate signs as under 3 below.
3. The following phrases shall be used to mark characteristics of usage and to Mark of usage and characteristic precautions:











- 3.1

Keep away from children



- 3.2

Wash after handling

- 3.3  Dangerous to animals
- 3.4  Dangerous to fish and aquatic animals, prohibited to contaminate water ways
- 3.5 The following phrases shall be used in either “usage” or “mixing” directions, as appropriate:
- 3.5.1  Wear eye protection
- 3.5.2  Wear breathing protection
- 3.5.3  Wear mask
- 3.5.4  Wear gloves
- 3.5.5  Wear protective clothing during spraying or handling
- 3.5.6  Wear rubber boots

Article 27. Advertising

A person, juristic person or organization shall only advertise registered pesticide.

Prohibit advertising over reality or not correctly as characteristic of pesticide which lead misunderstanding of customers and users.

PART VII Management and inspection

Article 28. Management and inspection of pesticides

Pesticide management and inspection sections comprise of:

- Department of Agriculture, Ministry of Agriculture and Forestry;
- Provincial Agriculture and Forestry Office;
- District of Agriculture and Forestry Office.

These three sections will assign pesticide inspection unit which include trained staffs on pesticide management from DOA.

Article 29. Inspection of pesticide

Inspection of pesticide refers to monitoring of pesticide manufacture process, import – export, distribution, advertising, storage, using and disposal of expired pesticide or pesticide waste include empty containers on farm, concession farm, individual farm, governmental and private farm to compliance with laws of Lao PDR.

Article 30. Types of pesticide inspection

There are three types of pesticide inspection:

1. Regular inspection;
2. Inspection with advance notice;
3. Immediate inspection.

Regular inspection refers to an inspection performed regularly according to plans at pre-determined times which shall conduct at least once a year.

Inspection by advance notice refers to an inspection which is not included in the plan, which is performed when deemed necessary and for which advance notice is given.

Immediate inspection refers to a sudden inspection performed without advance notice to the person to be inspected.

Article 31. Right and duties of Department of Agriculture

In the management and inspection of pesticide, the Department of Agriculture has following rights and duties:

1. To conduct research on policies, laws and regulations on management and inspection of pesticide and then propose to Minister for consideration;
2. To disseminate and train policy, laws and regulations on pesticide management and inspection;
3. To cooperate with related agencies and local administration for pesticide management and inspection;
4. To implement the pesticide registration and make available regular update of the lists of registered and banned pesticides;
5. To monitor the licensing for the import-export of pesticide;
6. To train and upgrade officials involving to pesticide management and inspection on politic, ideology, moral, and technique;
7. To appoint inspectors taking into consideration based on proposal and to provide them with the necessary badge that empower them to conduct their task;
8. To provide training to traders to obtain basic knowledge about pesticide and their risks;
9. To cooperate with international organizations on pesticide management and inspection;
10. To regularly report to government on the implementation of its duties in pesticide management and inspection throughout the country.
11. To exercise other rights and duties as stipulated in related legislations.

Article 32. Right and duties of Provincial Agriculture and Forestry Office (PAFO)

In the management and inspection of pesticide, Provincial Agriculture and Forestry Office has following rights and duties:

1. To supervise the implementation of laws and regulations on pesticide management and inspection within its own province;
2. To issue the imported license to person or juristic person which registered pesticide, or to be representative of pesticide distributor, and must be based on requirement of use of pesticide in local province to avoid over supply leading to expire date;

3. To issue sell and/or imported license to person or juristic person which meet the requirement for such business;
4. To implement the inspection of pesticide shops in their provinces and to follow up in cases of violation;
5. To make available the necessary staffs and budget to exercise the duties assigned under the regulation;
6. To make proposal regarding appointment of pesticide inspectors under its control to the Minister of Agriculture and Forestry ;
7. To cooperate with other involving agencies on pesticide management and inspection;
8. To regularly report to the Ministry of Agriculture and Forestry on the implementation of its duties in pesticide management and inspection;
9. To exercise other rights and duties as stipulated in the laws.

Article 33. Right and duties of District Agriculture and Forestry Office (DAFO)

District Agriculture and Forestry Office has following rights and duties:

1. To implement the laws and regulations on pesticide management and inspection within its responsible area;
2. To cooperate with other involving agencies on pesticide management and inspection;
3. To regularly report to PAFO on the implementation of its duties in pesticide management and inspection ;
4. To exercise other rights and duties as stipulated in the laws.

Article 34. Rights and duties of pesticide inspectors

The pesticide inspectors have following rights and duties:

1. Inform traders (import-export, sale, storage) of their obligation under this regulation;
2. While conducting inspection of pesticide, inspectors shall show the nominated certificate and identity card to persons subject to the inspection and shall duly and strictly comply with the laws and regulations;
3. carry out periodic inspections of all persons, juristic person or organizations who involved in import, export, manufacture, pack, repack, label, store, distribute, advertise or use pesticides to determine whether the provisions of this Decree are being complied with;
4. require for inspection, the production of certificates, permits, licenses, records or any other document or authorization granted or issued under this Decree;
5. take samples of any pesticide, substances or other objects related to pesticide for analysis;
6. seize any equipment, pesticide, document, record, or other thing which the Inspector believes has been used in, or which appears to afford evidence of, a contravention of national legislation, so long as:
 - the inspector gives a receipt in the prescribed form to the person from whose custody the item was taken;
 - the item is returned to that person once the inquiry has been completed, except for illegal pesticides, which if so declared by the court, shall be disposed as prescribed in article 11 of this regulation;
7. Take the appropriate action with the responsible authorities to follow up on violation;
8. Report violation that required fining to the PAFO on the result of inspection to the Head of Provincial Agriculture and Forestry Office and Director General of DOA.

PART VIII
Fees and Service charges

Article 35. Fees and service charges

Fees and service charges for registration certificate or licenses of pesticide shall be based on curricular of Ministry of Finance on fees and service charges which have been promulgated from time to time.

PART IX **Rewards and sanctions**

Article 36. Rewards

Any person, juristic person or organization having good deeds in implementing this regulation shall be adequately rewarded and privileged from treatments determined by Ministry of Agriculture and Forestry.

Article 37. Rewards for government officials

Government official work involved pesticide continuously over 5 years shall be received pension before the date as described in article 59 of Labor Law.

Article 38. Measures towards violators

Any person, juristic person or organization having violated of this regulation shall be educated, warned fined and punished, depending on the gravity of the cases as follow:

1st violation: educate, warn and record in file;

2nd violation: seize goods and fine 50% of the goods according to the market price and record in the file;

3rd violation: seize goods and fine twice of the goods value according to the market price, record in the file, collaborate and submit to the concerned authority for temporally or closing the business depending on the case.

Any violation in the first time, second or third, if it being strong consequences to the human health, animal, plant or environment shall be punished according to criminal law.

Any person who suffers from the imports, exports, manufacture, packaging or storage of pesticides which are unqualified and dangerous to human health and the environment, or from their illegal use, shall be compensated by the competent court.

In case of disposal pesticides or send back to exported country the violators must be responsible for all expenditure.

PART X **Final provision**

Article 39. Implementation

The Department of Agriculture, Ministry of Agriculture in collaboration with concerned organizations has to develop and implement this regulation for effectively result.

Article 40. Effectiveness

This regulation comes into force after the date of its signing.

Regulations and provisions which are contradicted to this regulation shall be null.

Minister of Agriculture and Forestry

Annex 2: List of eligible and banned Pesticide in Lao PDR. May 2010 - List of eligible and registered pesticides

| No | Common name | a.i (%) | Trade name | Type of application | Countries of origin | Toxicity class |
|----|---|--------------|--------------------------|------------------------|---------------------|------------------|
| 1 | 2,4- D | 80% | Zico 80 WP | Herbicide | Vietnam | WHO II |
| 2 | 2,4-D dimethy Lammonium | 84% | Dee Jai | Herbicide | Thai | WHO II |
| 3 | 2,4-D dimethyl ammonium | 82.1% | Obet | Herbicide | Thai | WHO II |
| 4 | 2,4-D dimethyl ammonium | 84% | B K Amin | Herbicide | Thai | WHO II EPA II |
| 5 | 2.4 D | 60% | ZICO 720 SL | Herbicide | Vietnam | WHO II |
| 6 | 2.4 D | 48% | Zico 48 SL | Herbicide | Vietnam | WHO II |
| 7 | 45% buprofezin + 15% Imidacloprid | 60% | DIFLOWER ® 600WP | Insecticide | Vietnam | WHO U |
| 8 | Abamectin | 1.80% | Khum Pleum | Insecticide | Thai | EPA IV |
| 9 | Abamectin | 1.8% | Countdown | Insecticide | Thai | EPA IV |
| 10 | Abamectin | 1.8%-3.6%-5% | DIBAMEC®1.8E C-3.6EC-5WG | Insecticide | Vietnam | EPA IV |
| 11 | abamectin | 1.8% | Intake | Insecticide | Thai | EPA IV |
| 12 | Abamectin 0.9% + Bacillus thuringensis 1.15 | 2% | ABT 2 WP | Insecticide | China | EPA IV |
| 13 | Acetochlor | 50% | Dibstar 50 EC | Herbicide | Vietnam | WHO III |
| 14 | Acetochlor | 80% | Saicoba 80 EC | Herbicide | Vietnam | WHO III |
| 15 | Acting | | AI-Net Acting | Plant Growth regulator | Thai | |
| 16 | Agrio-streptomycin | 72% | Agrio-streptomycin | Bactericide | China | |
| 17 | Alachlor | 48% | Anchor | Herbicide | Israel | WHO III |
| 18 | Alpha cypermethrin | 5% | Sapen-Alpha 5 EC | Insecticide | Vietnam | WHO II |
| 19 | Alpha-Cypermethrin | 2% | Dominex | Insecticide | Thai | WHO II |
| 20 | Alpha-Cypermethrin | 5% | DANTOX®5EC | Insecticide | Vietnam | WHO II |
| 21 | Ametryn | 50%,80% | Sametrin 50 WP, 80 WP | Herbicide | Vietnam | WHO III |
| 22 | Atrazine | 80% | Mizin 80 WP | Herbicide | Vietnam | WHO U |
| 23 | Atrazine | 90% | B K Mac P 90WG | Herbicide | Thai | WHO U EPA III |
| 24 | Azoxystrobin + Propiconazole | 32,5 % | Saiprobin 325 SC | Fungicide | Vietnam | WHO U |
| 25 | Bensulfuron methyl | 10% | Beron 10 WP | Herbicide | Vietnam | WHO U |
| 26 | Bifenthrin | 24% | Biflex - TC | Termiticide | Thai | WHO II |
| 27 | Bifenthrin | 0.50% | Fentax 10 WP | Insecticide | Thai | WHO II |
| 28 | Bifenthrin | 1.25% | Bistar- D | Insecticide | Thai | WHO II |
| 29 | Bifenthrin+Malathion | 2%+40% | Bistar - M | Insecticide | Thai | WHO II |
| 30 | buprofezin | 40% | Lang van | Insecticide | Thai | WHO U |
| 31 | Butachlor | 5%-10% | DIBUTA®60 EC | Herbicide | Vietnam | WHO U |
| 32 | Butachlor | 60% | Butaxim 60 EC | Herbicide | Vietnam | WHO U |
| 33 | Butachlor + Propanil | 70% | Por Jai | Herbicide | Thai | WHO U |

| | | | | | | |
|----|-----------------------------------|------------------|-------------------------|-------------|---------|---------|
| 34 | Butachlor+Bensulfuron Methyl | 21%+4% | ALOHA®25WP | Herbicide | Vietnam | WHO III |
| 35 | Carbendazim | 50% | Sabay Dee | Fungicide | Thai | WHO U |
| 36 | Carbendazim | 50% | DIBAVIL® 50FL -50WP | Fungicide | Vietnam | WHO U |
| 37 | Carbendazim | 50% | Carbendazim 500 FL | Fungicide | Vietnam | WHO U |
| 38 | Carbendazim | 50% | Carbendazim 50 WP | Fungicide | Vietnam | WHO U |
| 39 | Carbendazim + Mancozeb | 6.2%+73.8% | C M plus | Fungicide | Thai | WHO U |
| 40 | Carbosulfan | 20% | Kanir | Insecticide | Thai | WHO II |
| 41 | Cartap | 95% | Big cock 95 SP | Insecticide | China | WHO II |
| 42 | Cartap | 4% | Big cock 4 G | Insecticide | China | WHO II |
| 43 | Cartap hydrochloride | 50% | Chodsanit | Insecticide | Thai | WHO II |
| 44 | Chlorothalonil | 75% | Mention | Fungicide | Thai | WHO U |
| 45 | Chlorothalonil | 53.0% | Daconil 720 SC | Fungicide | Japan | WHO U |
| 46 | Chlorpyrifos methyl | 3% | Sago-Super 3 G | Insecticide | Vietnam | WHO U |
| 47 | Chlorpyrifos methyl | 20% | Sago-Super 20EC | Insecticide | Vietnam | WHO U |
| 48 | Chlorpyrifos | 40% | Temsoob | Insecticide | Thai | WHO II |
| 49 | Chlorpyrifos | 40% | Casto | Insecticide | Thai | WHO II |
| 50 | Chlorpyrifos | 40% | CJ - 40 | Insecticide | Thai | WHO II |
| 51 | Chlorpyrifos Ethyl + Cypermethrin | 532g/l+55g/l | Golden dragon 585 EC | Insecticide | Vietnam | WHO U |
| 52 | Chlorpyrifos+cypermethrin | 50%+5% | New teen 55 | Insecticide | Thai | WHO II |
| 53 | Chlorothalonil | 75% | Chlorothalonil | Fungicide | China | WHO II |
| 54 | Copper hydroxide | 77% | Microbucob | Fungicide | Thai | WHO III |
| 55 | Copper Oxycloride | 85% | Saicoxy 85 WP | Fungicide | Vietnam | WHO III |
| 56 | Cyhalofop-Butyl | 10% , 20% | Sagolince 100 EC,200 EC | Herbicide | Vietnam | WHO U |
| 57 | Cyhalofop-Butyl + Pyribenzoxim | 50% + 20% | Sagoshots 70 EC | Herbicide | Vietnam | WHO U |
| 58 | Cymoxanil + Mancozeb | 8% + 64% | Saicymance 72 WP | Fungicide | Vietnam | WHO III |
| 59 | Cypermethrin | 10% | Jud Hai | Insecticide | Thai | WHO II |
| 60 | Cypermethrin | 35% | Rup four 35 | Insecticide | Thai | WHO II |
| 61 | Cypermethrin | 5%-10%-25% | DANTOX®5EC-10EC-25EC | Insecticide | Vietnam | WHO II |
| 62 | Cypermethrine | 25% | Secsaigon 25 EC | Insecticide | Vietnam | WHO II |
| 63 | Cypermethrine | 10% | Secsaigon 10 EC | Insecticide | Vietnam | WHO II |
| 64 | Cypermethrine | 5% | Secsaigon 5 EC | Insecticide | Vietnam | WHO II |
| 65 | Cypermethrine | 50% | Secsaigon 50 EC | Insecticide | Vietnam | WHO II |
| 66 | Cyst-Forming protozoan | 200,000- §ðªp | Prorodent | Rodenticide | Thai | |
| 67 | Denotefuran + Imidacloprid | 5%+15% | EXPLORER® 200WP | Insecticide | Vietnam | WHO II |

| | | | | | | |
|----|----------------------------------|----------------|-----------------------------|------------------------|---------|---------|
| 68 | Diazinon | 10% | Diaphos 10 G | Insecticide | Vietnam | WHO II |
| 69 | Diazinon | 50% | Diaphos 50 EC | Insecticide | Vietnam | WHO II |
| 70 | Dimethoate | 40% | Dimenate 40 EC | Insecticide | Vietnam | WHO II |
| 71 | Dimethoate + Fenvalerate | 21.5% +3.5% | Febis 25 EC | Insecticide | Vietnam | WHO II |
| 72 | dinotefuran | 20% | Sagoshin 20 WP | Insecticide | Vietnam | WHO U |
| 73 | Diuron | 80% | Ansaron 80 WP | Herbicide | Vietnam | WHO U |
| 74 | Effective Microorganism (EM) | 5% | GENO-MI® 5 SL | Plant Growth regulator | Vietnam | |
| 75 | Emamectin + Benzoate | 5%+2% | COMDA 5WDG,2EC,2SC, 5EC,5SC | Insecticide | Vietnam | WHO II |
| 76 | Emamectin benzoate | 0.20% | Emamectin benzoate | Insecticide | China | WHO III |
| 77 | Ethephon | 2,5% | Sagolatex 2.5 PA | Plant Growth regulator | Vietnam | |
| 78 | Fenobucard | 50% | Bascide 50 EC | Insecticide | Vietnam | WHO II |
| 79 | Fipronil | 5% | Sagofipro 5 SC | Insecticide | Vietnam | WHO II |
| 80 | Fipronil | 5%-0.3%-80% | LEGEND®5SC-0.3G-800WG | Insecticide | Vietnam | WHO II |
| 81 | Fluazifop-p-butyl | 15% | Hekio | Herbicide | Thai | WHO III |
| 82 | Flumetralin | 25% | Flumetralin | Plant Growth regulator | China | WHO U |
| 83 | Fomesafen | 25% | Dilamma | Herbicide | Thai | WHO III |
| 84 | Fosetyl aluminium | 80% | Kan Aeng | Fungicide | Thai | WHO U |
| 85 | Fosetyl aluminium | 80% | Alpine 80 WP; 80 WDG | Fungicide | Vietnam | WHO U |
| 86 | Fosetyl aluminium | 80% | DIBAJET®80WP | Fungicide | Vietnam | WHO U |
| 87 | Glyphosate | 41% | Lyphoxim 41 SL | Herbicide | Vietnam | WHO III |
| 88 | Glyphosate IPA Salt | 48% | Dibphosate 480 SL | Herbicide | Vietnam | WHO III |
| 89 | Glyphosate isoproylammonium | 48% | Burn up 48 | Fungicide | Thai | WHO III |
| 90 | Glyphosate isoproylammonium | 48% | Glyfosate 48 | Herbicide | Thai | WHO III |
| 91 | Glyphosate isoproylammonium salt | 48% | Grafic | Herbicide | Thai | WHO III |
| 92 | Glyphosate isoproylammonium salt | 48% | Baca up 48 | Herbicide | Thai | WHO III |
| 93 | Glyphosate isoproylammonium salt | 48% | Baka up 48 | Herbicide | Thai | WHO III |
| 94 | Greenfast | | AI-Net Greenfast | Plant Growth | Thai | |

| | | | | | | |
|-----|--------------------------|----------------|---|------------------------------|---------|---------|
| | | | | regulator | | |
| 95 | haloxyfop-R-methylester | 10.8% | Hork | Herbicide | Thai | WHO II |
| 96 | Hexaconazole | 5%,10% | Saizole 5SL, 10EC,10SC | Fungicide | Vietnam | WHO U |
| 97 | Hexaconazole | 5%-10% | DIBAZOLE® 5 SC-10SL | Fungicide | Vietnam | WHO U |
| 98 | Imidacloprid | 10% | Saimida 100 SL | Insecticide | Vietnam | WHO II |
| 99 | Imidacloprid | 5%-10%- 70% | ARMADA®50EC -100SL-100EC- 100WG-700WG | Insecticide | Vietnam | WHO II |
| 100 | Imidacloprid | 50% | Imidacloprid | Insecticide | China | WHO II |
| 101 | Iprobenfos | 50% | Kisaigon 50 EC | Insecticide | Vietnam | WHO III |
| 102 | Iprobenfos+ Tricyclazole | 14%+6% | Lua vang 20 WP | Fungicide | Vietnam | WHO III |
| 103 | Isoxaflutole | 75% | Balance | Herbicide | Thai | EPA III |
| 104 | Lamda Cyhalothrin | 2,5 % | Vovinam | Insecticide | Vietnam | WHO II |
| 105 | Magnesium Phosphide | 66% | MAGTOXIN | Fumigant | Germany | EPA I |
| 106 | Malathion | 73% | Malate 73 EC | Insecticide | Vietnam | WHO III |
| 107 | Mancozeb | 80% | Dipomate 80 WP | Fungicide | Vietnam | WHO U |
| 108 | Mancozeb | 80% | Kroche | Fungicide | Thai | WHO U |
| 109 | Mancozeb | 25% | Khob Jai | Fungicide | Thai | WHO U |
| 110 | Mepiquat chloride | 97% | Animat 97 WP | Plant Growth regulator | China | WHO III |
| 111 | Metalaxyl | 25% | Chiket | Fungicide | Thai | WHO III |
| 112 | Metalaxyl | 25% | Chud Jen | Fungicide | Thai | WHO II |
| 113 | Metalaxyl + Mancozeb | 8% + 64% | Mexyl MZ 72 WP | Fungicide | Vietnam | WHO II |
| 114 | Metsulfuron Methyl | 20% | DANY®25 DF | Herbicide | Vietnam | WHO III |
| 115 | N - ONE | | AI-Net N- One | Plant Growth regulator | Thai | |
| 116 | N- TWO | | AI-Net N- Two | Plant Growth regulator | Thai | |
| 117 | N-Function | | AI-Net N- Function | Plant Growth regulator | Thai | |
| 118 | Nitrogen | 4% | GENO-SUPER | Plant Growth regulator | Vietnam | |
| 119 | Nitrogen | 21% | GENO-N-SUA | Plant Growth regulator | Vietnam | |
| 120 | Pacecilomyces lilacinus | 50% | Palila 500 WP | Fungicide | China | |
| 121 | Paclobutrazol | 15% | Saigon P1 15 WP | Plant Growth regulator | Vietnam | WHO III |
| 122 | Pendimethalin | 330g/l | Pendimethalin | Herbicide | China | WHO III |
| 123 | Phosalone + Cypernethrin | 17,5% + 3% | Sherzol 205 EC | Insecticide | Vietnam | WHO II |
| 124 | Pretilachlor | 30% | Venus 300 EC | Herbicide | Vietnam | WHO U |
| 125 | Propanil | 36% | Protocom | Herbicide | USA | WHO III |

| | | | | | | |
|-----|-----------------------------------|--------------|---------------------------|------------------------|---------|---------|
| 126 | Propiconazole+Prochloraz | 49% | Sai Jai | Fungicide | Thai | WHO II |
| 127 | Propineb | 70% | Saitracone 70 WP | Fungicide | Vietnam | WHO U |
| 128 | Pyrazosulfuran ethyl | 60% | Red dragon60WDG | Herbicide | Vietnam | WHO U |
| 129 | Pyribenzoxim | 3% | Pyanchor 3 EC | Herbicide | Vietnam | |
| 130 | Quinalphos | 25%-5% | FAIFOS®25EC-5G | Insecticide | Vietnam | WHO II |
| 131 | Quinclorac | 50% | DANY®25 DF | Herbicide | Vietnam | WHO U |
| 132 | Seaweed Extract | 6% | GENO-ROOTS | Plant Growth regulator | Vietnam | |
| 133 | Sulfur | 80% | Sulox 80 WP | Fungicide | Vietnam | WHO U |
| 134 | Tebuconazole | 2,5% + 4,5 % | Saifolicer 250 WG, 430 SC | Fungicide | Vietnam | WHO III |
| 135 | Tebuconazole + Trifloxystrobin | 5% + 2.5 % | Sainative 750 WG | Fungicide | Vietnam | WHO III |
| 136 | Temephos | 1% | Chemfleetsan dagarid | Insecticide | Thai | WHO U |
| 137 | Thiophanate methyl | 70% | Thio - M 70 WP | Fungicide | Vietnam | WHO U |
| 138 | Thiophanate methyl | 50% | Thio-M 500 FL | Insecticide | Vietnam | WHO U |
| 139 | Thiophanate methyl + Tricyclazole | 36%+14% | Pysaigon 50 WP | Fungicide | Vietnam | WHO U |
| 140 | Tricyclazole | 20% + 75 % | Trizole 20WP, 75WP,75WG | Fungicide | Vietnam | WHO II |
| 141 | Validamycin | 5% | Vanicide 5 SL | Fungicide | Vietnam | WHO U |
| 142 | Validamycin | 3% | Kwan Jai | Fungicide | Thai | WHO U |
| 143 | Validamycin A | 5% | Vanicide 5 WP | Fungicide | Vietnam | WHO U |
| 144 | Validamycin A | 3% | vanicide 3 SL | Fungicide | Vietnam | WHO U |

List of banned pesticides

Insecticides and acaricides

1. Aldrin
2. BHC
3. Chlordane
4. Chlordimeform
5. Chlorfenvinphos
6. Chlorthiophos
7. Cyhexatine
8. DDT
9. Dieldrin
10. Dimefox
11. Dinitrocresol
12. Demeton
13. Endrin
14. Endosulfan
15. Ethyl Parathion
16. EPN
17. Heptachlor
18. Hexachloro cyclohexane
19. Leptophos

20. Lindane
21. Methamidophos
22. Methomyl
23. Methyl parathion
24. Monocrotophos
25. Pholy chlorocamphene
26. Phorate
27. Schradan
28. TEPP
29. Toxaphene

Fungicides

30. Binapacryl
31. Captafol
32. Cycloheximide
33. Mercury and mercury compounds
34. MEMC
35. PMA
36. Selenium compound

Rodenticides

37. Chlorobenzilate
38. Sodium fluoasetate

Herbicides

39. 2,4,5 -T
40. Dinoseb
41. Dinoterb acetate / Dinitrobutyphenol
42. Paraquat
43. Sodium chlorate

Fumigants

44. EDB
45. Ethylene oxide
46. Methyl bromide

Others

47. Arsenic compound
48. Calcium arsenate - Herbicide, rodenticide, molluscicide, insecticide
49. DBCP - Nematocidide
50. Daminozide - Plant growth regulators
51. Fluoroacetamide - Insecticide, rodenticide
52. Oxamyl - Insecticide, acaricide, termiticide
53. Phosphamidon - Insecticide, nematocidide
54. Sodium Arsenite - Insecticide, fungicide, herbicide, rodenticide
55. Thallium (i) sulfate - Rodenticide, insecticide

ມາຈາກຄວາມຕ້ອງການຂອງປະຊາຊົນ, ໂດຍປະຊາຊົນ, ແລະ ເພື່ອຜົນປະໂຫຍດຂອງປະຊາຊົນ

FROM THE PEOPLE, BY THE PEOPLE, FOR THE PEOPLE

ຫ້ອງວ່າການລັດຖະບານ

ຄະນະພັດທະນາຊຸມນະບົດ ແລະ ລຶບລ້າງຄວາມທຸກຍາກຂັ້ນສູນກາງ

ຫ້ອງການ ທລຍ ສູນກາງ

ຖະໜົນນາໄຮ່ດຽວ, ບ້ານສີສະຫວາດໃຕ້, ເມືອງຈັນທະບູລີ,


P.O BOX 4625, ນະຄອນຫລວງວຽງຈັນ

GOVERNMENT'S OFFICE

**National Committee for Rural Development
& Poverty Eradication**

POVERTY REDUCTION FUND

Nahaidiao Road,
Sisavathtai Village,
Chanthaboury District,
P.O Box 4625,

 +856 021 261 479 / 261 480

 +856 021 261 481

 info@prflaos.org

 www.prflaos.org

ກອງທຶນຫຼຸດຜ່ອນຄວາມທຸກຍາກ

POVERTY REDUCTION FUND (PRF)

www.prflaos.org | info@prflaos.org



 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC