

LAO PEOPLE'S DEMOCRATIC REPUBLIC  
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY



Government's Office  
Environment Protection Fund Office (EPFO)

# **Environmental and Social Management Framework (ESMF)**

SECOND LAO ENVIRONMENT AND SOCIAL PROJECT  
(LENS2)

Project No. Q8770

Vientiane, 20 December 2014

## Preface

This document is the Environmental and Social Management Framework (ESMF) for the Second Lao Environment and Social Project (LENS2) which includes activities that are in addition to of the Protected Area and Wildlife (PAW) project approved by the World Bank (WB) Board on 2 April 2014. The ESMF has been prepared to meet the WB's safeguard policies on Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Pest Management (OP/BP 4.09), Physical Cultural Resources (OP/BP 4.11), Indigenous Peoples (OP/BP 4.10), Involuntary Resettlement (OP/BP 4.12), and International Waterways (OP/BP 7.50), which have been triggered for LENS2. The ESMF has been designed to describe the process that will address possible environmental and social impacts of all subprojects to be financed under LENS2 once specific locations and technical details of the selected subprojects will be identified during project implementation. The ESMF also describes the safeguard screening and review process as well as safeguard actions to be carried out to mitigate the potential negative impacts while the annexes provide background information and technical guidelines for the preparation of site-specific Environmental and Social Management Plan (ESMPs) for a subproject. In light of a broader objective of LENS2, the ESMF presents the screening process in the main text while adopting most of the basic principles and mitigation measures designed for mitigating the potential negative impacts of the national protection areas approved for the PAW project as an annex. Additional measures to safeguard potential negative impacts due to additional activities related to water resources and proposed to be covered under LENS2 (without being considered under PAW) have been added.

A Community Engagement Framework (CEF) has also been prepared in accordance with the CEF of PAW project and is considered as an integral part of the ESMF. Similar to the CEF for PAW project, the CEF for LENS2 has consolidated a set of social safeguard instruments required to comply with OP/BP 4.10 and OP/BP 4.12 including a Resettlement Policy Framework (RPF), a Process Framework (PF), and an Ethnic Groups Planning Framework (EGPF) into one integrated document.

LENS2 aims to *help strengthen selected environmental protection management systems, specifically for protected areas conservation, enforcement of wildlife laws and environmental assessment management*. The project will be administered by the Environment Protection Fund Office (EPFO) and implemented through the subproject mechanism of the following three specialized financing windows: Policy Implementation and Capacity Enhancement (PICE), Community and Biodiversity Investments (CBI), and Water Resources Management (WRM). The Subproject Delivery Agency (SDA) would be the national agencies, provincial and local authorities, mass organizations, research/education institutes, local communities, civil societies, and/or non-government organizations (NGOs). Eight project provinces include Houaphan (HP), Xiengkouang (XK), Louang Phabang (LPB), Vientiane Province (VTP), Xaysomboun (XSB), Bolikhamxay (BLKX), Khammouane (KM), and Savannakhet (SVK). Subproject activities are expected to range from institution building to human resource development to management of protected areas, water, forest, and wildlife including livelihood support in line with LENS2 eligibility criteria and CEF requirements. A list of LENS2 additional subprojects has been identified however scope and budget of the subprojects will be discussed during appraisal.

In addition to the consultation conducted for PAW, a series of consultation meetings was conducted for the additional activities to be conducted under LENS2 in six priority project provinces (VTP, XSB, BLKX, KM, SVK, and LPB) during 10-24 July 2014 focusing on the project scope, the draft ESMF, and the draft CEF given due attention to discuss the CEF process and criteria and ensure broad community support of ethnic groups. Safeguard consultation was also made in Vientiane Capital during the EPF stakeholder workshop conducted on 20 August 2014. This draft ESMF was translated into Lao language and both Lao and English versions will be disclosed in country at the EPFO website and the project provinces.

### ABBREVIATIONS AND ACRONYMS

AF	Additional Financing	NAPA	National Academy on Public Administration
ASEAN	Association of South East Asian Nation	NCBA	National Conservation Biodiversity Area
CCA	Community Conservation Agreement	NGO	Non-Government Organization
CAP	Community Action Plan	NpAs	Non-profit Associations
CBI	Community and Biodiversity Investments	NREI	Natural Resources and Environment Institute
CEF	Community Engagement Framework	NTFP	Non Timber Forest Product
CITES	Convention on International Trade in Endangered Species	NT-NKD	Nam Theun-Nam Kading
CSO	Civil Society Organization	NUoL	National University of Laos
CUZ	Controlled Use Zone	O&M	Operation and Maintenance
DAFO	District Agriculture and Forestry Office	OP/BP	Operational Policy/Best Practices (of the World Bank)
DEQP	Department of Environment Quality and Promotion	PAFO	Provincial Agriculture and Forestry Office
DESIA	Department of Environment and Social Impact Assessment	PA	Protected Area
DFRM	Department of Forest Resources Management	PAW	Protected Area and Wildlife Project
DGC	District Grievance Committee	PCD	Pollution Control Department
DoA	Department of Agriculture	PDO	Project Development Objective
DoF	Department of Forestry	PF	Process Framework (WB policy) Protection Forest Area
DoFI	Department of Forest Inspection	PFA	Protection Forest Area
DoNRE	District Office of Natural Resources Management	PFRM	Provincial Forest Resources Management
DPA	District Protected Area	PICE	Policy Implementation and Capacity Enhancement
DPC	Department of Planning and Cooperation	PMP	Pest Management Plan
DPO	Department of Personnel and Organization	PIM	Project Implementation Manual
DSC	District Steering Committee	PoFI	Provincial Office of Forest Inspection
ECOP	Environment Code of Practice	PoNRE	Provincial Office of Natural Resources and Environment
EGPF	Ethnic Group Planning Framework	PLUP	Participatory Land Use Planning
EIA	Environnemental Impact Assessment	PPA	Provincial Protected Area
ESIA	Environment and Social Impact Assessment	PSC	Provincial Steering Committee
ESMP	Environment and Social Management Plan	RAP	Resettlement Action Plan
EPF	Environmental Protection Fund	RBC	River Basin Committee
EPFO	Environment Protection Fund Office	RBO	River Basin Organization
EPF TC	EPF Technical Committee	REDD+	Reducing Emissions from Deforestation and Forest Degradation
ESMF	Environmental and Social Management Framework		
GIZ	Deutsche Gessellschaft fur Internationale Zusammenarbeit	RPF	Resettlement Policy Framework
GoL	Government of Lao PDR	SDA	Subproject Delivery Agency
GRC	Grievance and Redressal Committees	SIA	Social Impact Assessment
IEE	Initial Environmental Examination	SRCWP	Strengthening Regional Cooperation in Wildlife Protection in Asia
IESE	Initial Environmental and Social Examination	SUFORD	Sustainable Forestry for Rural Development Project
IPM	Integrated Pest Management	ToR	Terms of Reference
LaoWEN	Lao Wildlife Enforcement Network	TPZ	Total Protected Zone
LFNC	Lao Front for National Construction	UNFCCC	United Nations Framework Convention on Climate Change
LWU	Lao Women Union	VDC	Village Development Committee
MAF	Ministry of Agriculture and Forestry	VDF	Village Development Fund
MEM	Ministry of Energy and Mines	VMU	Village Mediation Unit
M&E	Monitoring and Evaluation	WB	The World Bank
MoNRE	Ministry of Natural Resources and Environment	WCS	Wildlife Conservation Society
		WHO	World Health Organization

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## I. INTRODUCTION

### 1.1 Project Background

1. Lao is a mountainous dominated country and very rich in natural resources and biodiversity values, and also home for many ethnic minority groups. Recognizing that rapid development in the country could threaten these valuable resources and affects local peoples, the Government of Lao PDR (GoL) has taken actions to mitigate potential negative impacts by strengthening legal and institutional capacity of key agencies and provinces to facilitate effective management of natural resources and environmental quality.

2. During 2006-2013 and with the World Bank (WB) support, the Environmental Protection Fund Office (EPFO) was the implementing agency for the Lao Environment and Social Project (LENS) and its additional financing aiming to strengthen the management of environmental and social safeguards associated with the sustainable use of natural resources in Lao PDR. LENS project was designed to provide grant financing to the central and local agencies as well as the local communities and/or NGOs focusing on strengthen the policy and institutional capacity to address environmental and social safeguard and support for biodiversity conservation investments. To facilitate the implementation a subsidy grant agreement was signed between EPF and the Ministry of Finance (MOF). The project activities were carried out through the subproject mechanism through the EPF two funding windows: Policy Implementation and Capacity Enhancement (PICE) and Community and Biodiversity Investments (CBI), and a project completion report was completed in June 2013. The EPFO is managed by the EPF Board of Director chaired by the Deputy Prime Minister responsible for environment and vice chaired by the Minister of Finance while the day-to-day management is responsible by the EPFO under the leadership of the Executive Director.

3. In late 2013, GoL through MOF requested the WB for additional supports to prepare the Second Lao Environment and Social (LENS2) project (or the Project) expected to be implemented during 2015-2020. On 2 April 2014, the WB approved the implementation of the Protected Area and Wildlife (PAW) project which has been designed to strengthen management of national protected area and wildlife enforcement using the EPF subgrant mechanism through the PICE and CBI windows. To ensure effective implementation of the two projects and simplify project requirements, LENS2 will be prepared as an additional financing (AF) of the PAW project and the additional activities and safeguard requirements will be consolidated/integrated to ensure consistency and simplicity. Similar to PAW, LENS2 will be implemented through 3 components i.e. (1) Institutional development and capacity building (PICE window) and (2) Management of protected area\*<sup>1</sup> (CBI window), and (3) Project administration and EPF capacity building and details are provided in Subsections 1.3-1.5. Additional budget would be about \$15 million. Background on the country and sector issues is provided in Appendix 1.

### 1.2 Need for ESMF

4. To be eligible for WB financing, the WB safeguard policy on Environmental Assessment as an umbrella policy will have to be applied and implemented. Although most additional activities will support capacity building that improve policy implementation and coordination and training on natural resources and environment and they will not cause direct significant negative impacts, there may be activities (especially those related to strengthening of protected areas, forests, and water resources management to be carried out under Component 2) that involve restriction of resources access and use, construction of small stations, and/or small livelihood development activities. In line with the WB's safeguard policies, the Project has been classified as "Category B" and the following

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<sup>1</sup>\* Protected areas definition expanded to include also the areas gazetted to protect upper forested watersheds.

WB safeguard policies<sup>2</sup> are triggered: Environmental Assessment (OP/BP 4.01); Natural Habitats (OP/BP 4.04); Pest Management (OP/BP 4.09); Forest (OP/BP 4.36); Physical Cultural Resources (OP/BP 4.11); Indigenous Peoples (OP/BP 4.10); Involuntary Resettlement (OP/BP 4.12), and Projects on International Waterways (OP/BP 7.50). To comply with these policies, preparation of the following safeguard instruments is required: (a) the Environmental and Social Management Framework (ESMF), (b) the Resettlement Policy Framework (RPF) and the Process Framework (PF), and (c) the Ethnic Group Planning Framework (EGPF) including consultation to ensure broad support to the project. To be in line with OP/BP 4.10 and OP/BP 4.12, a Community Engagement Framework (CEF) has also been prepared for LENS2 by integrating the EGPF, PF, and RPF in one process following the key principles, objectives, and requirements of the CEF prepared and approved for PAW project. The CEF is presented as an independent document but considered as part of the ESMF.

5. This ESMF will be applied to all subprojects financed under the LENS2. The ESMF will be implemented as part of the LENS2 subproject cycle and the activities will be fully integrated into their selection, approval, implementation, and monitoring and evaluation process. The ESMF aims to provide the national, provincial and district government, the LENS2 team, consultants, village officials, private and public sector agencies and beneficiary community members with adequate guidance for effectively planning, implementing and monitoring environmental and social safeguard issues. This document is considered a living document and can be modified in close consultation with the World Bank and clearance of the revised ESMF by the Bank will be necessary.

6. EPFO will be responsible for ensuring effective implementation of the ESMF including endorsement of the safeguard screening and issues, ensuring that the mitigation measures are effectively implemented and adequate, and monitoring/reporting of LENS2 safeguard performance while the Subproject Delivery Agency (SDA) will be responsible for screening of safeguard issues and preparation and implementation of mitigation measures. EPFO will provide periodic safeguard training to the SDA and related agencies as appropriate. Both EPFO and SDA will be responsible for keeping proper documentations for possible review by the WB.

### 1.3 Project Objective and Scope

7. LENS2 aims to *help strengthen selected environmental protection management systems, specifically for protected areas conservation, enforcement of wildlife laws and environmental assessment management*. Eight project provinces have been selected including: Houaphanh (HP), Xiengkhoang (XK), Loung Phabang (LPB), Vientiane Province (VTP), Xaysomboun (XSB), Bolikhamxay (BLKX), Khammouane (KM), and Savannakhet (SVK). LENS2 activities will be implemented through the EPF subproject mechanism and a list of subprojects has been identified and implementation is expected to begin in 2015.

8. *Additional activities than PAW activities*: This will include additional subprojects to be implemented under Components 1 and 2 and EPFO capacity building activities to be implemented under Component 3. The subproject selected criteria has been established for the additional subprojects (Box 1.1). At present there are 16 subprojects identified and approved by WB under PAW (see list in Appendix 2) with an aim to *strengthen country systems for managing protected areas and for enforcing wildlife laws* and the subproject proposals are being prepared<sup>3</sup> and they will be implemented under LENS2.

<sup>2</sup>The WB established ten environmental and social safeguard policies to be applied to development projects. During preparation, the Bank undertakes environmental screening of each of its proposed projects to determine the appropriate extent and type of assessment to be undertaken. The Bank classifies projects (category A, B, C, FI) depending on its type, location, sensitivity and the nature and magnitude of impacts on communities and the environment.

<sup>3</sup>It is expected that about five or six of PAW subprojects will be submitted for EPF Board approval in late 2014.

**Box 1.1: Subproject selection criteria for LENS2** (per the mission aide memoire dated 19 May 2014)

- (A) Support a GoL policy, strategy, and/or an official plan,  
 (B) Contribute to at least one outcome indicator and at least one intermediary outcome indicator, and  
 (C) Contribute to a regional outcome such as cross border cooperation, knowledge transfer or prevention of illegal wildlife trade.

The criterion ‘A’ and ‘B’ would apply to all sub-projects. The criterion ‘C’ would apply only to protected area and wildlife sub-projects due to their regional nature.

## 1.4 Project Component and Description

9. LENS2 will be implemented through the 3 components below. A list of additional subprojects (23 subprojects) has been pre-identified including those SDA to be implemented under PAW project. The subprojects will be appraised and approved by EPFO during project implementation. Each subproject would have a set of eligible expenditures. While the detail of these expenditure is unknown until the proposals are received, eligible expenditures include (a) civil works for office building rehabilitation, (b) equipment including vehicles, motorcycles, computer and office equipment, furniture, field equipment, etc., (c) training expenditures including workshops, study tours, scholarships, short courses, research grants, etc., (d) consultant services (individual, firm or NGOs), including international and national technical assistance (TA) to SDAs, short term consultants for advisory services on technical, procurement, financial management, safeguards legal advice, etc., (e) operating expenditures such as external auditors, non-consultant and non-civil service staff and labor, utilities, equipment operation insurance and maintenance, rental, office supplies, travel and subsistence, etc.

### Components:

- **Component 1: Institution development and capacity building.** This component seeks this Intermediary Result: improved institutions partnership and capacity to implement and monitor national conservation, environmental and social laws and international commitments and operate according to national plans. These subprojects are implemented through the EPF’s window Policy Implementation and Capacity Enhancement (PICE). The original project PAD lists the sub-projects already identified. The table below list the additional subprojects initially selected for LENS support however, scope and budget of the subprojects will be discussed during appraisal.

**Table 1.1: List of PICE sub-projects initially identified (per draft LENS2 Project Paper in December 2014)**

SDA <sup>4</sup>	Sub-project	Indicative Budget (US\$ ‘000)	Remarks
MONRE/ DPC	Capacity building for planning and monitoring environment, protected area and wildlife management issues	300,000	Identified under PAW
MONRE/ DFRM	Capacity and institution building for protected area management and wildlife conservation (sub-project submitted and approved)	2,500,000	Identified under PAW
MAF/	Capacity and institution building of Lao WEN for addressing regional wildlife trafficking (sub-project submitted and	1,820,000	Identified under PAW

<sup>4</sup> MONRE DPC (Department of Planning and Cooperation), MONRE DFRM (Department of Forest Resources Management), MAF DOFI (Department of Forest Inspection), NUOL FSS (National University of Laos Faculty of Forest Science), GO DPR (Government Office Department of Public Relation)

DOFI	approved)		
NUOL FFS	Capacity building, curriculum development and professional training for wildlife and protected area management (sub-project submitted and approved)	2,540,000	Identified under PAW
Kaysone Acad.	Constituency building of high level officials on biodiversity and wildlife	300,000	Identified under PAW
GO PR	Constituency building of public administration on environment, biodiversity and wildlife trade issues	300,000	Identified under PAW
MONRE/DEQP	Capacity building for environment promotion and scaling up integrated spatial planning (ISP) in selected provinces	300,000	Identified under LENS2
MONRE/DESIA	Capacity building for screening, monitoring and enforcement of environment and social standards in public and private investment projects	600,000	Identified under LENS2
MONRE/P CD	Capacity and institution building for pollution reduction especially from industries and small and medium enterprises	300,000	Identified under LENS2
NAPA	Development of an environment and social curriculum and teachers training at the National Academy of Politic and Administration (NAPA)'s	100,000	Identified under LENS2
NUOL-FSS	Improvement of the social curriculum of the NUOL Faculty of Social Science (NUOL-FSS)	450,000	Identified under LENS2
NUOL-FES	Capacity building, curriculum development and large scale professional training by the NUOL Faculty of Environment Science (NUOL-FES)	200,000	Identified under LENS2
NUOL-FEB	Applied research on Payment for Ecosystem Services (PES) and on Biodiversity Offset by the NUOL Faculty of Economic and Business (NUOL-FEB)	200,000	Identified under LENS2
PONRE ESIA Div.	Strengthening PONRE divisions for implementation of the PESAP with a focus on enforcement of environment and social impact regulations in eligible provinces.	200,000 each	Identified under LENS2

- **Component 2: Management of protected areas\*** This component seeks this Intermediary Result: Improved public institutions, civil society and communities' capacity and collaboration to manage conservation and protection forests and protect wildlife against threats from infrastructure development and illegal use or trade of natural resources. These subprojects are implemented through the EPF's windows on Community and Biodiversity Investments (CBI). The table below list the additional subprojects initially selected for LENS support however, scope and budget of the subprojects will be discussed during appraisal.

**Table 1.2: List of CBI sub-projects initially identified (per draft LENS2 Project Paper in December 2014)**

SDA	Sub-project	Indicative budget (US\$ '000)	Remarks
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WMPA	Management of the Nam Theun Two watershed	3,000,000	Identified under PAW
NPA MU	Management of the Nam Et Phou Louey NPA	3,000,000	Identified under PAW
PFRMs	Support to communities engagement and PA management in eligible provinces <sup>5</sup>	400,000 each	Identified under LENS2
POFIs	Support to wildlife law enforcement in eligible provinces	400,000 each	Identified under LENS2

- **Component 3: Project administration and capacity building (EPFO).** This component is implemented in 2 sub-components. Each of these sub-components aims for an Intermediary Result.

Sub-components	Intermediary Results
C3.1 Project administration	Project's outputs are delivered within the allocated time frame and with satisfactory planning, procurement, financial management, monitoring, and communication.
C3.2 EPF's capacity development	EPF's has become a significant and recognized player in environment financing and is capable to deliver and monitor sub-projects throughout the country.

## 1.5 Project Implementation Arrangements

10. *Implementation:* At project level, the EPFO will be the implementing agency for LENS2 and is responsible for administering and monitoring of the project funds. The eligible beneficiaries (SDA) will prepare proposals in line with the criteria for LENS2 support (see Box 1.1 above) and implement them after the subgrant signing with the EPFO Executive Director. The SDA may include central agencies, provincial/local authorities, local communities, mass organizations, research institutes, and/or NGOs. The SDA will have to demonstrate their commitment and capacity to implement the subprojects.

11. *Oversight:* The EPF Board will assign a Technical Committee (TC) to ensure that the subprojects are in line with the GoL policy and agreements with WB for LENS2. The TC will be chaired by the Executive Director of EPFO and comprised at least senior managers from key planning agencies MoNRE, MAF, and Ministry of Finance (MOF). The TC will review sub-project proposals, reports and plans as well as provide recommendations for approval to the EPF Board. The EPF Board meets regularly twice a year (every six months in general) to review and approve all EPF matters including approval of Annual Reports and Annual Work plan and Budget (AWPB) of LENS2. At the provincial level, given a larger size of the potential subprojects, it has been agreed with the province that a Subproject Steering Committee (SPSC) will be established for LENS2 to ensure effective and timely implementation of the subprojects and facilitate synergy and complimentary with other related projects and/or activities in the province. For the subprojects that trigger environment and social

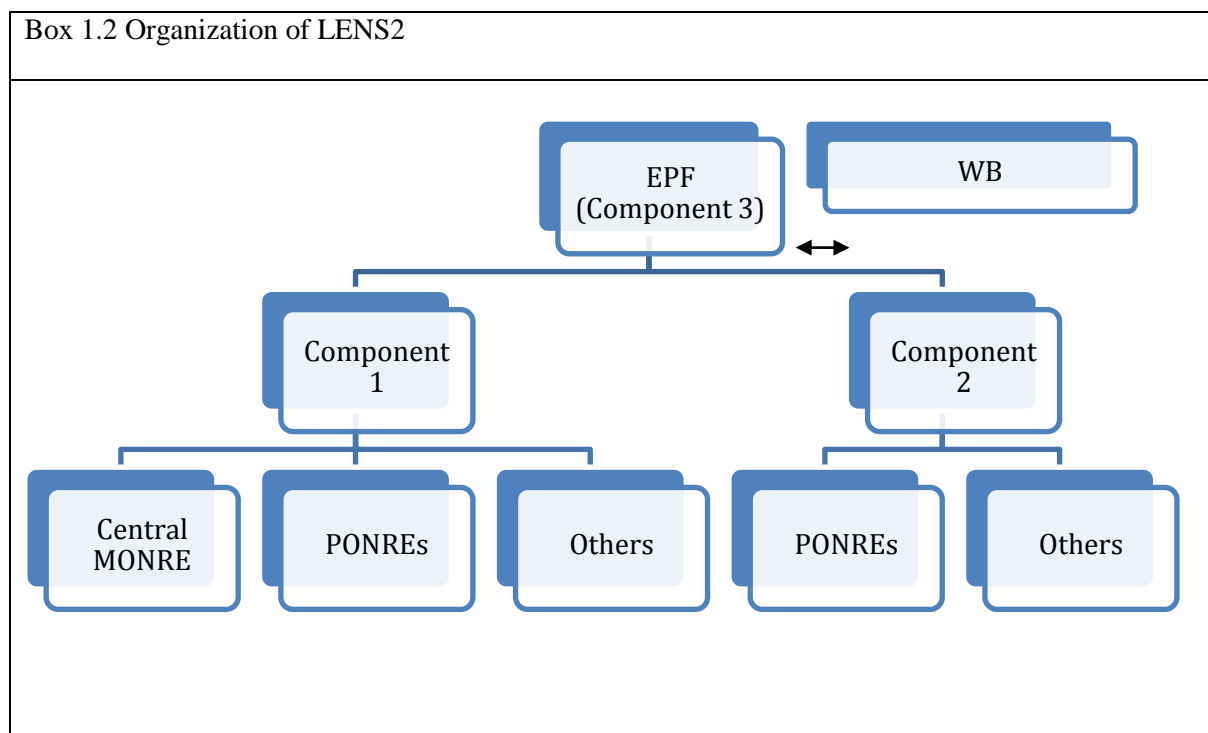
<sup>5</sup>Provincial offices of forest resources management have presented some ideas however, none has been formally identified and all the field work required for sub-project design will be carried during year 1 of LENS2. Such ideas include: Nam Ngiép-Nam Mang NPA in Borikhamxay Province, several protection forests in the Nam Lik watershed in Vientiane Province, the Dong Na Tad Provincial Conservation Forest in Savannakhet Province, and the Poubia protection forests in Xaysomboon Province.

safeguards and/or involve local communities and/or ethnic groups, the subproject activities will be carried out according to the process and criteria described in the ESMF and CEF. Box 1.2 presents organization arrangement at project and subproject levels.

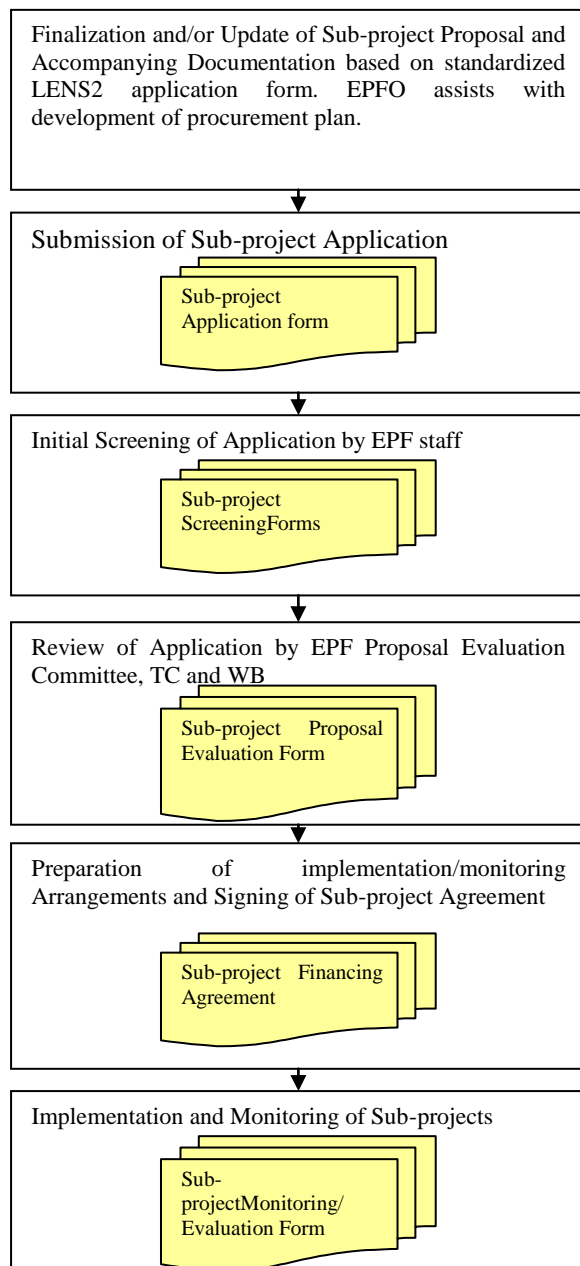
12. *The subproject cycle:* Box 1.3 presents the subproject cycle which will be identified in the Project Implementation Manual (PIM) for LENS2. Key steps could be highlighted as follows:

- Step (1) the SDA will submit a short concept to be reviewed by the EPFO for safeguard screening (see Section IV);
- Step (2) if the concept is deemed eligible the SDA will be invited to prepare a full proposal including taking safeguard actions as agreed with EPFO using the LENS2 subproject template. EPF will provide guidance and/or assistance to the subproject owner as needed to ensure quality of the proposal and build subproject owner capacity.
- Step (3) when the SDA submit its proposal, the EPF will appraise it using a check list from the LENS2 PIM and, if necessary help the subproject owner improve its proposal.
- Step (4) when EPFO is satisfied that the subproject meets all relevant criteria, the proposal will be submitted at the same time to the EPF Technical Committee and to the WB for review, comments and no objection. The subproject will be submitted for approval<sup>6</sup> before a Subgrant Agreement (SGA) can be signed with EPFO Executive Director and begin implementation.

Box 1.2 Organization of LENS2



<sup>6</sup> The subproject less than \$50,000 will be approved by the EPFO Executive Director while those above US\$50,000 to US\$100,000 will be approved by the Vice-Chair of the EPF Board and those above US\$100,000 are approved by the Chairperson.

**Box 1.3 LENS2 Subproject Cycle**

## II. KEY PRINCIPLES AND OBJECTIVE OF THE ESMF

13. *Objective and scope:* Main objective of the ESMF process is to ensure that LENS2 activities will not create adverse negative impacts on local community and/or local environment and the potential negative impacts could be adequately mitigated through the mitigation measures proposed for the project. Scope of safeguard requirements has been designed to address the WB safeguard policies triggered for LENS2 mentioned above. The ESMF process comprises the following key requirements while key principles are highlighted below:

- (1) “Negative list” screening to ensure that activities prohibited will not be financed by LENS2;
- (2) Issues and actions screening for identification of key issues/actions and preparation of safeguard documents (such as ESMP) and/or application of CEF;
- (3) Consultation and information disclosure;
- (4) Safeguard clearance by EPFO and WB;
- (5) Safeguard monitoring and reporting;
- (6) Grievance mechanism;
- (7) Gender mainstreaming; and
- (8) Safeguard training will also be conducted to ensure that ESMF and CEF will be effectively implemented and monitored.

14. *Application and approach:* The ESMF will be applied to all subprojects and activities carried out under LENS2. The safeguard issues and proposed mitigation measures approved under the ESMF and CEF for PAW project have been applied and updated taken into account additional activities. The CEF is considered as an integral part of the ESMF and has consolidated a set of social safeguard instruments required to comply with OP/BP 4.10 and OP/BP 4.12 including a Resettlement Policy Framework (RPF), a Process Framework (PF), and an Ethnic Groups Planning Framework<sup>7</sup> (EGPF) into one integrated document. For the additional subprojects the key principles described below will be applied as appropriate.

15. *Key principles:* To facilitate clarity for implementation, key principles and/or requirements of the LENS2 ESMF are highlighted as follows and details are discussed in Sections V and VI of this ESMF:

- All the subprojects will be subject to the “Negative List” screening to ensure that prohibited activities will not be financed under LENS2 (see details in Section 5.2). Additional screening will also be made to check if the subproject is located in or nearby protected areas and for the nature and scale of safeguard risks including those related to technical assistance and capacity building activities.
- For the subproject located in and near the PAs designated as the national, provincial, and/or district PAs, the safeguard issues and mitigation measures approved for PAW project will be applied with additional consideration given to address the potential impacts on nearby water resources and safety (see Appendix 3) during the preparation of the site-specific environment and social management plan (ESMP). However, scope and extent of the mitigation measures could be adjusted in line with the nature and scale of safeguard risks.
- For the non-PA subprojects, the mitigation measures will be prepared as part of the ESMP according to the scope and nature of the potential negative impacts and/or safeguard risks. For the subproject involve forest, land use, and water quality/uses due consideration will be given to ensure that the soil erosion will be adequately managed and potential land/water uses

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<sup>7</sup>Equivalent to the Indigenous Peoples as defined in OP/BP 4.12.

conflicts and/or public health risks will be minimized and the pest management plan (Appendix 8) will be applied as appropriate. For the subproject involving small civil works, application of the mitigation measures for small infrastructure and/or the ECoP (Appendixes 4 and 5) will be considered.

- When the non-PA subproject involve ethnic groups, limited resources access/uses of local people, and/or minor land acquisition, the EGPF, the PF, and/or the RPF developed as part of the CEF will be applied accordingly.
- For the subproject involving technical assistance and capacity building activities the WB Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank will be considered.
- All safeguard documents will be disclosed at EPFO website as well as at SDA project offices at national, provincial and district levels as appropriate. Close consultation with local communities will be maintained throughout the subproject implementation period.

**Gender mainstreaming:** To be in line with OP/BP4.20<sup>8</sup> (gender mainstreaming) all the subprojects will be designed to incorporate gender consideration during the design, and implementation of the subproject. The following key gender issues should also be considered and addressed: (a) the local circumstances that may affect the different participation of females and males in the project; (b) the contribution that females and males each could make to achieving the project's objectives; (c) the ways in which the project might be disadvantageous to one gender relative to the other; and (d) the project's proposed mechanisms for monitoring the different impacts of the project on females and males.

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<sup>8</sup>WB also recognizes that gender issues are important dimensions of its poverty reduction, economic growth, human well-being and development effectiveness agenda and that gender issue is associated with disparities between men and women in access to resources, in economic opportunities, and in voice.

### III POLICY, LEGAL, AND INSTITUTIONAL FRAMEWORKS

#### 3.1 National Laws and Regulations

16. In Lao PDR, there are many laws and regulations govern the utilization and management of natural resources management (land, forest, water, aquatic and wildlife, etc.) established in late 1990's and many have been updated and/or revised. On environment, the Environmental Protection Law (EPL) established in 1999 was the key law governs environmental protection and management describing the principles, regulations and measures for managing, monitoring, restoring, and protecting the environment especially those related to protection of human health, natural resources and the richness of nature. A number of decrees, regulations, and guidelines have been established and applied during 2000's. In December 2012, the EPL was revised and a number of regulations and guidelines are being updated in line with the establishment and operation of the new Ministry of Natural Resources and Environment (MoNRE). Below highlights key regulations and institutions related to EIA/IEE process, social safeguards, pollution control, and other related natural resources management.

- ***MoNRE regulation on ESIA and IEE (17 December 2013).*** This regulation has been recently issued according to the revised EPL in December 2012 and the operation of MoNRE and replaces the Prime Minister's Decree No. 112 on Environmental Impact Assessment (16 February 2010). The EIA/IEE process incorporates the preparation of social impacts assessment and mitigation/monitoring plan as well. This regulation assigns DESIA to be responsible for review of the Environmental Impact Assessment (EIA/SIA) including recommendations for the issuance of the Environmental Compliance Certificate (ECC)<sup>9</sup> and undertaking compliance monitoring while assigns the provinces through its PoNRE to be responsible for review, issuance of ECC, and monitoring of the Initial Environmental Examination (IEE/ISE). The regulation also provides a list of projects requiring EIA/SIA and IEE/ISE. In addition, MoNRE has established a number of guidelines for the preparation of EIA/SIA and IEE/ISE report including the public involvement in the EIA process.
- ***Decree on Compensation and Resettlement of People Affected by Development Projects (7 July 2005).*** This decree defines principles, rules, and measures to mitigate adverse social impacts and to compensate damages that result from involuntary acquisition or repossession of land and fixed or movable assets, including changes in land use, restriction of access to community or natural resources affecting community livelihood and income sources. This decree aims to ensure that project affected people are compensated and assisted to improve or maintain their pre-project incomes and living standards, and are not worse off than they would have been without the project. The provisions will be applied during the preparation and implementation of the social impacts assessment (SIA), the social impact mitigation and monitoring plan (SMMP), and/or the resettlement action plan (RAP). Technical Guideline for this decree was established in 2010. While DESIA is responsible for review and approval of the SIA with consent from the province, the province is responsible for overseeing the implementation of the decree which will be carried out by the project owner. A new regulation and related guidelines are being updated in line with the GOL policy, regulations, and organization arrangement.
- ***On ethnic groups<sup>10</sup>***, in Lao PDR the term ethnic groups (EG) is used to characterize a variety of cultural groups. Constitutionally, Laos is recognized as a multi-ethnic society and Article 8 of the 1991 Constitution states that "All ethnic groups have the right to preserve their own traditions and culture, and those of the Nation. Discrimination between ethnic groups is

<sup>9</sup> The ECC will be issued by the Minister of MoNRE

<sup>10</sup> The official terminology for describing the diverse population of Lao PDR which was introduced with the 1991 Constitution, and it is considered equivalent to the definition described as the Indigenous Peoples according to OP4.10.

forbidden". The 1992 Part policy on EG focuses on realizing equality between EG and gradually improving the lives of EG while promoting their ethnic identity and cultural heritage. The Lao Front for National Construction (LFNC) introduced an official ethnic classification into forty nine main groups comprising four ethno-linguistic families, namely the Tai-Kadai, the Mon-Khmer, the Tibeto-Burmese, and Hmong-Mien which are distributed from the north to the south of the country. Out of the four regions the north has the highest number of districts with ethnic groups comprising about 87% of the region population while the east has the second highest number of 69% and followed by the southern and central regions, each of which have ethnic populations of about 50%<sup>11</sup>. Box 3.1 below summarizes the main characteristics associated with the four ethno-linguistic groups in Lao PDR<sup>12</sup>. In mid 2013, the LFNC established the national guideline for Consultation with Ethnic Groups.

Box 3.1: Main characteristics of ethnic groups in Lao PDR		
Ethno-Linguistic	Language Family	Summary Characteristics
Tai Kadai	Lao Phoutai	65% of the population, living mostly along the economically vibrant Mekong corridor along the Thai border or in Northern lowlands; settled cultivators or urban dwellers; migrated into Lao PDR since the 13th century; Buddhists.
Austroasiatic	Mon Khmer	24% of the population, living mainly in highland areas in the North and Central South, smaller groups (Khmou) live also in the Northern lowlands; the most diverse ethnic group and the first one to inhabit large areas of Lao PDR; animist and shifting cultivators; fairly assimilated due to hundreds of years of interaction with Lao-Tai, single communities live in isolation as hunter-gatherers.
Hmong - lu Mien	Hmong Yao	8% of the population, living mainly in mid- and upland areas in the North; Hmong is the largest subgroup; animist with strong ancestor cults, although many converted to Christianity; typically shifting cultivators, migrated to Lao PDR in the 19th century.
Chinese – Tibetan	TibetoBurman	3% of the population, living mainly in poorly-connected upland areas in the North; animist and shifting cultivators; migrated to Lao PDR in the 19th century.

- Pollution Control:** MoNRE drafted a pollution control decree to be used for management of pollution from various sources and this draft is being revised to be regulations in line with GoL administration policy. According to the draft, the decree defines types, areas, and nature of pollution control from point sources and non-point sources as well as from emergency situations, including environmental standards (effluent and ambient). The project developments will be required to obtain the pollution control permit as described in the ministerial regulations which will be established by MoNRE. Scope will include toxic/hazardous chemical and wastes (including radioactive). There are also draft Environment Ambient Standard (2009) and draft Pollution Emission Standards (2009). The Pollution Control Department (PCD) of MoNRE and the respective unit at the provincial and district levels will be responsible for overseeing the implementation and monitoring of the decree/regulations. PCD is also responsible for management of the ozone depleting

<sup>11</sup>National Biodiversity Strategy to 2020 and Action Plan to 2010, 2004.

<sup>12</sup>Lao People's Democratic Republic: Northern Region Sustainable Livelihoods Development Project, Indigenous Peoples Development Plan, Document Stage: Final Project Number: 35297, August 2006, Prepared by the Government of Lao People's Democratic Republic for the Asian Development Bank (ADB), page 5 and NSC/CPI, ADB, SIDA and the World Bank, 2006

substance<sup>13</sup> and be the focal point for the Great Mekong Subregion program<sup>14</sup>. The Department of Environmental Quality Promotion (DEQP) is promoting green, clean technology as well as good environmental control and management practices and be the focal point for Global Environmental Fund (GEF) and Ramsar conventions while the Natural Resources and Environment Research Institute (NERI) provides services on water analysis. However, effective application of regulations and promotion activities and services remains a major challenge given limited capacity of key agencies and lack of human and financial resources. Under the Ministry of Industry and Commerce (MoIC), the Department of Industry and Handicraft is responsible for ensuring compliance with emission standards. However, in line with the current institutional reform in the natural resources and environmental sector, roles and responsibility of central agencies and provinces as well as between MoNRE and MoIC are being discussed.

- **Agriculture chemicals:** In Lao PDR, Ministry of Agriculture and Forestry (MAF) is responsible for control and management and agriculture chemical uses and produced<sup>15</sup> in March 2000 the Regulation number 0886/MAF and recently updated in June 11, 2010 (regulation number 2860/MAF) on Pest Management in Lao PDR based on the WHO recommended Classification of Pesticide by Hazard and Guideline to Classification 1994-1995. In January 2010, MAF began to register 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 under MAF is mandated to oversight all the usage of pesticide.
- **Regulation No. 0360 on Management of National Protected Areas, Aquatic Animals and Wildlife (Ministry of Agriculture and Forestry, 2003).** This regulation describes the zoning of national protected areas into core, managed, and corridor zones and specifies activities in these areas, prohibits hunting of all wildlife and aquatic animals in the core zone, prohibits trade in wildlife, and specifies that guns must be registered with special licenses.
- **Forestry Law (24 December 2007).** This law determines basic principles, regulations and measures on sustainable management, preservation, development, utilization and inspection of forest resources and forestland; promotion of regeneration and tree planting; and increase of forest resources in the country. The principles of the law aim to maintain balance of nature, making forest and forestland a stable source of resources, ensuring sustainable preservation of water sources, prevention of soil erosion and maintenance of soil quality, conserving plant and tree species, and wildlife for the purpose of environmental conservation and contribution to national socio-economic development (Box 3.2).
- **Wildlife Law (24 December 2007).** This law determines principles, regulations and measures on wildlife and aquatic life in nature to promote the sustainable regeneration and utilization of wildlife and aquatic life, without any harmful impact on natural resources or habitats and to restrict anthropogenic pressure on decreasing species and the extinction of wildlife and aquatic life. The law outlines guidelines for managing, monitoring, conserving, protecting, developing and utilizing wildlife and aquatic life in a sustainable manner; to guarantee richness of ecological natural equilibrium systems, and to contribute to upgrading livelihoods for multi-ethnic people, which has the potential to develop and realize national social-economic goals.

Box 3.2: Classification of forest areas
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|---|
| <ul style="list-style-type: none"> <li>• The Forest Law provides for five classes of forest: Conservation Forest; Protection Forest;</li> </ul> |
|---|

<sup>13</sup>The Montreal Protocol.

<sup>14</sup>Funded by ADB

<sup>15</sup>With the support of JICA, FAO, WHO.



Production Forest; Regeneration Forest; and Degraded Forest. The first two are relevant to biodiversity conservation and watershed protection although individual regeneration forests could presumably, in time, be reclassified as protection or conservation forests. It is estimated that conservation and protection forests cover over 80,000 km<sup>2</sup> or about 76 per cent of forest area.

- The conservation forest is defined as: 'forest and forest land classified for the purpose of protecting and conserving animal species, nature and various other things which have historical, cultural, tourism, environmental, educational and scientific research value.' The protection forest is defined as: 'forest and forest land classified for the protection of watershed areas and the prevention of soil erosion. It also includes areas of forest land significant for national security, areas for protection against natural disaster and protection of the environment and other areas.' The conservation forests aims to maintaining biodiversity and natural forest and landscapes, 'for the development of national parks appropriate for tourism and scientific research.' It also provides for zoning into total protection zones, controlled use zones and corridor zones. The former would be closed to entry or harvesting of NTFP—plant or animal.
- The protected areas are classified as national (area more than 50,000 ha), provincial (5,000-50,000 ha), district (up to 5,000 ha). Three zones are: Totally Protected Zones; Controlled Use Zones; and Corridor Zones.

- **Other related laws, decrees, regulations:** Box 3.3 summaries other related policies/strategies, laws, decrees, regulations, and guidelines related to natural resources and environment as well as those related to hydropower and mining.

#### Box 3.3 Other national policies, laws, regulations

- *Electricity Law and Minerals Law:* Hydropower development is governed by the Electricity Law of 1997, updated in 2008, and revised in 2012. The 2012 Electricity Law clearly define the objectives and requirements for ensuring sustainable development, safety, and efficiency of the electricity business operations including the responsibility of the project developers to pay for the costs to mitigate the negative impacts and to share the project benefits with local peoples. The 2012 Electricity Law also requires the project developers to pay its contribution to the Fund for environment protection within the concession areas and surrounding areas, catchment reservoir protection, project downstream areas and socio-economic infrastructure development of the locality where the project is located. The Mining Law of 1997, updated and renamed the Minerals Law in 2008, and revised in 2011 governs the mining development and operation. The laws define sector operations, stipulate restrictions, and define operators' technical obligations, including those related to safeguards. The mining law also requires the developers to make contribution to the environmental protection fund.
- *Prime Minister's Decree No. 146 on Environment Protection Fund (6 June 2005).* This decree established the EPF, sets its mandate, objective, governance, windows through which it can implement sub-projects and sources of financing. The decree will be revised in line with the new Environmental Protection Law (Part VII) revised in early 2013.
- *Lao Tiger National Action Plan 2010-2015.* The government of Lao PDR endorsed this plan as part of the Global Tiger Initiative to secure the tiger habitat in its network of national protected areas. Two out of five priority actions programmes to achieve long term strategic goals for tiger conservation, as outlined in the Summary National Tiger Recovery Program will be supported under this project and includes: establishing an inviolate core zone at NEPL NPA through law enforcement, outreach and education, land use planning, and capacity building; establishing and maintaining connectivity between the NEPL source site of tigers with other neighbouring tiger conservation landscapes; and by demarcating an established corridor and collaborating with other forest managers to create a connected forest landscape.
- *Decree on Associations (9 April 2009).* This Decree sets the rules and regulations governing the establishment, operation and management of associations registered as legal entities in Lao PDR

for the purposes of promoting the Lao people's right of freedom, creativity and ownership in the organization of associations aiming at national protection and development; providing guidelines to individuals or organizations intending to set up associations; and providing guidelines to government organizations in managing, facilitating and encouraging lawful activities by associations, promoting associations' contributions towards socio-economic development and poverty eradication, as well as countering and restricting activities affecting national stability, social order and individual rights of freedom.

- Politburo Resolution on Formulation of Provinces as Strategic Units, Districts as Comprehensively Strong Units, and Villages as Development Units (15 February 2012). This resolution provides general guidelines for decentralization in the country. Province, district and village level governments are requested to explore new roles and responsibilities for enhanced integrated leadership to improve ownership and accountability.
- *Land Law (21 November 2003)*. The objectives of the Land Law are to determine the management, protection and use of land to ensure efficiency and conformity with land-use objectives and with laws and regulations, and to contribute to national socio-economic development and the protection of the environment. Legislations on land and forestry are currently under revision in Lao PDR. The National Assembly has oversight over a process that will lead to a land policy followed by a land use master plan, and a revised land law. The current draft of the land policy provides recognition to customary land management rights, collective management and community management rights.
- *Prime Minister's Decree No 111/PM* determines location of geographical landscapes to ensure that the *strategic areas of national defense and security* are managed in accordance with the national defense strategic plan. The Decree identifies geographic areas by district and province for the Strategic Back up Zone and the Military Zone; and, delineates a 15 km borderline zone from the international border including inside national protected areas.
- *Water resources law*: A water and water resources law was promulgated in 1996 with an implementation decree (issued in early 2000's) assigning the responsibility for water resources management to sector agency. The law is being revised (with assistance from IFC and WB) in light of the Department of Water Resources (DWR) of MoNRE operation and it is expected to be submitted to the National Assembly in late 2014. The draft revised law has been developed in line with an integrated water resources management principles.

### 3.2 Institutional Arrangements

17. The National Environmental Committee (NEC) established by the EPL is the highest decision making body for environmental management. The NEC is chaired by the Deputy Prime Minister responsible for natural resources and environment and comprises representatives of key agencies as the member and the Department of Environmental Quality Promotion (DEQP) of MoNRE is the secretariat. As of the end of 2013, key institutions related to natural resources, environment, and hydropower and mining sector development are highlighted as follows:

- **MoNRE**: Since mid 2012, MoNRE is the lead agency responsible for effective management of natural resources and environment including water resources, forest/biodiversity, land, minerals, and environmental quality including EIA process. It is a new ministry and comprises 17 agencies<sup>16</sup> including DESIA, PCD, DEQP, Department of Water Resources (DWR), Department of Meteorology and Hydrology (DMH), Department of Disaster

<sup>16</sup> Other agencies include the Cabinet office, the Department of Internal Audit, the Department of Personnel and Organization (DPO), the Department of Planning and Coordination (DPC), the Department of Environmental Quality Promotion (DEQP), the Natural Resources and Environmental Research Institute (NREI), the Natural Resources and Information Center, the Lao National Mekong Committee.

Management and Climate Change (DDMCC), Department of Forest Resources Management (DFRM), Department of Land Management (DoLM), Department of Land (DoL), and Department of Geology and Minerals (DGM). The technical and management capacity of these agencies remains weak due to limited number of qualified staff and budget. Most activities will be carried out with technical assistance and operational supports by international financing and/or donor agencies<sup>17</sup>.

- **MEM:** MEM is the key ministry responsible for overseeing hydropower and mining development in Lao PDR and it went through a major reorganization in 2011-2012. Since mid 2012, MEM agencies comprising the Department of Energy Policy and Planning (DEPP), the Department of Energy Management (DEM), the Department of Energy Business (DEB), the Institute of Renewable Energy Promotion (IREP), the Department of Mines (DoM), the Cabinet Office, the Department of Personnel and Human Resources, and the Department of Audit. DEPP is responsible for policy and plan for energy development including integration of environmental and social safeguards while DEM is responsible for regulations and standards and technical management/monitoring of the energy projects and DEB (previous DEPD) is responsible for the promotion and monitoring of concessions agreements between the Government and private investors. DoM is the key agency responsible for management and administration of mine investment activities, including all activities related to mine concession management, inspection, and monitoring of performance requirements, health and safety issues, and environmental management in existing operations.
- **MAF:** MAF is responsible for ensuring effective management of agriculture, forests, and fisheries/aquaculture and it also went through a major reorganization during 2011-2012. It comprises many departments including the Department of Irrigation, the Department of Agriculture, the Department of Forest, the Department of Inspection, the Department of Fisheries, etc.
- **MOIC:** Ministry of Industry and Commerce is responsible for management and promotion of industrial and commercial development and it went through a major reorganization in 2006-07. At present, MoIC comprises many departments including the Department of Industrial and Handicraft (DIH) and the Department of Small and Medium Enterprises Promotion (DoSMEP).
- **MPWT:** Ministry of Public Works and Transport is responsible for management of land and water transport including management of domestic water supply and sanitation in urban areas. It is relatively large and stable ministry and key agencies including the Department of Road, the Department of Waterways Transport, the Department of Urban Development, and the Transport Research Institute.
- **EPFO/GO:** which has been in operation since 2006, can play an important role in providing financial resources to promote institutional capacity building, investment, and conservation of biodiversity provided there are funding sources. EPFO reports directly to the EPF board chaired by a deputy prime minister and an EPF office provides management and secretarial support to EPF operations. At present, the financial sources for the EPFO operating costs are

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<sup>17</sup> The key ones are the World Bank, IFC, AusAID, ADB, the Mekong River Commission (MRC), Sweden, Finland, Germany, and UNDP.

from the interest from the EPF endowment (which was provided through an ADB loan in 2005) and limited contribution made by developers (mostly small miners and Thuen Hinboon hydropower).

- **Mass Organizations:** The Lao Front for National Construction (LFNC) is a mass organization established to be responsible for development and management of ethnic groups in Lao PDR. It reports directly to the party and has established its own network at central and local level. Other mass organizations include the Lao Women's Union (LWU), the Labour Unions, and the Youth Groups.
- **The Provinces:** In addition to the central agencies, provincial departments of MoNRE (PoNRE), MEM (PDEM), MAF (PAFO), and MPWT (DPWT) exist in each of the 17 provinces. A Provincial Environmental Committee (PEC) is also established for each province. According to the GoL policy on decentralization as instructed by the National Assembly, the provincial and district authorities have begun to play a key role in planning, decision making, and monitoring of investment activities. For the energy sector, provincial departments are responsible for approval and monitoring of energy generation projects equality or less than 15 megawatt while the central agencies remain responsible for approval and management of large-scale investments. For the mining sector, the provincial departments are responsible for approval and monitoring of investments of less than US\$2 million. For natural resources and environment, PoNRE plays a key role in management of water, land, and forest resources as well as on environmental management including conducting review and monitoring of the IEE process and ECC issuance.
- **Universities/education institutes:** The National University of Lao (NUOL) is the main national agencies in Lao PDR. It comprises various faculties including the faculty of forestry, Faculty of environment, faculty of social sciences, faculty of engineering, faculty of water resources, etc. At provincial level, there are 3 universities i.e. Supannouvong University in Loungprabang, Savannakhet University (specialized in services), Chammpasak University (specialized in fisheries).
- **EPF:** According to the Environmental Protection Law (1999), the Environment Protection Fund (EPF) was established in 2005 as an autonomous financing mechanism<sup>18</sup> with an aim to *strengthen the environmental and social management, natural resources management, biodiversity conservation and community livelihood development to contribute to the sustainable socio-economic development in the country* (see [Box 3.4](#) for legal provision).

Box 3.4 Legal provision on EPF as described in the revised EPL (2013, Part VII)

- Article 65: The state promotes establishment of the EPF to be used for environmental researches, prevention, correction, and rehabilitation. Implementation and performance of the EPF shall be stipulated by the specific regulations;
- Article 66: sources of EPF are state budget, environmental rehabilitation fees from investment projects or activities, payment for ecological services, contribution by investment projects, enterprises and ordinary persons, Grant aids from both local and international organizations, fines and indemnities of environmental damages, and interest and profits generated from capital investments of the EPF;
- Article 67: Use of EPF shall be used for studies and researches on technological science for environmental protection, green development model, clean development, restoration of forests, soil and water, impacts mitigation of climate change, clean productions and others; Projects

<sup>18</sup>Per EPF decree (2005) and with an endowment from ADB loan of \$5million.

regarding prevention against, control or elimination of air, soil, and water pollution; Development of environmental laws and regulations; Environmental studies, capacity building, awareness raising, and promotion of environmental protection, particularly the World Environmental Day, the World Water Day and others; Environmental management and problem solving as priorities of all levels; and the EPF's administration and investments.

### 3.3 International and Regional Agreements and Conventions

18. Lao PDR is a member of many international and regional conventions and/or agreement and has been playing an active role. Box 3.5 highlights key international and regional agreements and conventions related to natural resources and environmental management.

Box 3.5: Key international and regional agreements and conventions

- *ASEAN Agreement on the Conservation of Nature and Natural Resources (1985)*. Lao PDR as Party to this agreement has agreed on development planning, the sustainable use of species, conservation of genetic diversity, endangered species, forest resources, soil, water, air and address environmental degradation and pollution.
- *United Nations Convention on Biodiversity (CBD 1996)*. Under this convention, Lao PDR has agreed to conduct an Environmental Assessment of proposed development projects to minimize harmful effects.
- *Convention on International Trade in the Endangered Species of Fauna and Flora (CITES 2004)*. Provides an international umbrella for management and control of trade in endangered fauna and flora. Tiger is listed as CITES Appendix 1 species for which all international trade is prohibited.
- *United Nations Framework Convention on Climate Change (UNFCCC 1995)*. The Government of Lao PDR joined the global community to combat climate change by ratifying this Convention. As a developing country (non-Annex I), there is no requirement for Lao PDR to reduce its greenhouse gas emissions. The country also ratified the Kyoto Protocol in 2003 and thus may be eligible for involvement in carbon trading through a compliance market of the Clean Development Mechanism as well as the international voluntary greenhouse gas emission trading.
- *Ramsar Convention (1982)*. The GoL officially joined the Convention in 2010. Two wetlands of international importance have been designed as Ramsar sites as part of the accession process which are the XeChamphone Wetlands in Savannakhet Province, and the BeungKiatNgong Wetlands in Champasak Province.

### 3.4 National Policy and Plan on Gender

19. In Lao PDR, under the leadership of the Government Office and the Lao Women Union (LWU) gender issues has received priority attention and gender issue has been integrated into national policy and plans (Box 3.6)<sup>19</sup>. A National Commission for the Advancement of Women (NCAW) was established in 2003 to drive national policy and to promote gender equality and empower women and a National Strategy on the Advancement of Women for 2011-2015 has been established.

Box 3.6: GOL policies and Gender Equality (see reference)

- The National Growth and Poverty Eradication Strategy (NGPES 2000-2005) identified four priority sectors for public investment, namely infrastructure, agro-forestry, education and health and defining the gender policy as to improve poor women's economic activities, access to services, and participation in local governance and national planning.
- The Seventh Five-year National Socio-Economic Development Plan (NSED) (2011-2015) emphasizes population policy, human capital development and elimination of all forms of violence against women

<sup>19</sup> Country Gender Assessment for Lao PDR: Reducing Vulnerability and Increasing Opportunity, the World Bank and ADB, 2012.

and children. The NSEDP gender targets include *Governance* aiming at 20% of government core staff to be female; at least 15% of posts above level of district mayor held by women, and increase in % of female National Assembly members to more than 30%; *Sector Development* emphasizing the inclusion of women in sector and area development and planning; *Labor and Social Protection* working towards increasing women's participation in paid labor force to 40% and raised awareness on social hazards to 85% of women over age 15 on issues such as human trafficking; and *Human Resources Development* focusing on upgrading academic and technical knowledge of women.

- The target identified in the National Strategy for the Advancement of Women (NSAW) includes more than 35% increase in number of women in vocational and technical training in each sector, and 30% increase in women in political and governance studies, promotion of women's SMEs and economic leadership, increases in women's participation in planning and access to services.

### 3.5 WB Safeguard Policies Triggered for LENS2

20. LENS2 project has been assigned Category "B" status given that the types of possible impacts are mostly positive, and for a few potential negative impacts are predictable and could be mitigated. Safeguard screening is a precautionary measure to ensure that all safeguards policies are given due attention, and to help the LENS2 preparation team identify approaches to enhance expected positive impacts when possible. Similar to PAW project, of the ten WB safeguard policies eight policies are triggered and relevant safeguard instruments have been developed (Table 3.1). Explanation and key actions undertaken during LENS2 preparation and those envisaged during project implementation are highlighted below.

Table 3.1 List of WB safeguard policies triggered for LENS2

	WB Safeguard Policies	Triggered?	Safeguard instruments
1	Environmental Assessment OP/BP 4.01	Yes	ESMF
2	Natural Habitats OP/BP 4.04	Yes	ESMF
3	Forests OP/BP 4.36	Yes	ESMF
4	Pest Management OP 4.09	Yes	ESMF
5	Physical Cultural Resources OP/BP 4.11	Yes	ESMF
6	Indigenous Peoples OP/BP 4.10	Yes	CEF
7	Involuntary Resettlement OP/BP 4.12	Yes	CEF
8	Safety of Dams OP/BP 4.37	No	-
9	Projects on International Waterways OP/BP 7.50	Yes	Notification to riparian countries
10	Projects in Disputed Areas OP/BP 7.60	No	

#### *Environmental Assessment OP/BP 4.01:*

- LENS2 or additional subproject activities will not involve any major civil works (e.g. category A type) and/or generate any adverse impacts on the local environment and people and this will be ensured through the application of "negative list" which has been identified in the ESMF. In general, the subprojects could be grouped into 2 categories: (i) national

subprojects to support the formulation, and/or capacity building for implementation, of studies, surveys, strategies, policies, regulations, decrees and laws related to protected areas, wildlife protection, forest and water resources management, environmental quality management, and environment and social impacts considered important at regional, national, and/or local levels and (ii) subprojects (site level) aiming to strengthen management of protected areas covering conservation areas and protection forest areas (national, provincial, and district PAs) and of water resources. Scope of the subprojects to be implemented under Component 2 will be of small and medium size (about \$50,000-\$500,000) and the CEF process will be applied to those located in and near the PAs as appropriate.

- In this context, the potential negative impacts of the additional subprojects are expected to be minor, known and readily mitigated through implementation of mitigation measures and proper monitoring activities. Given the unknown location of the proposed subprojects before LENS2 appraisal, this ESMF has been prepared to describe the process and guidance to address environmental impacts once subprojects are selected and their location defined during LENS2 implementation. The ESMF includes (a) screening criteria for selecting subprojects that could be financed by LENS2, (b) guidelines for identification of possible impacts and relevant mitigation measures and for preparation of an ESMP, (c) safeguard review and clearance process, (d) implementation and monitoring arrangements and responsibility of key entities, and (e) consultation and disclosure process. During the preparation of the draft ESMF and CEF, a series of safeguard consultation was made with local authorities and local communities including ethnic groups in the five priority target provinces (VTP, XSB, BLKX, KM, and SVK) and a safeguard consultation report on the ESMF and CEF for LENS2 was prepared. The LENS2 project objective, scope, potential positive and negative impacts, and the proposed ESMF and CEF processes were presented and discussed in the meetings.
- The draft ESMF has been disclosed in country both in English and Lao language. The draft ESMF (and CEF) are being reviewed by WB safeguard specialists before sending for clearance by the WB safeguard secretariat. The final ESMF and CEF will be re-disclosed in the country as well as the Bank Infoshop.

#### *Natural Habitats OP/BP 4.04*

- LENS2 or additional subproject activities will not create significant degradation of natural habitats but will provide positive benefits to PAs (strengthening combating illegal logging). Minor disturbance and site specific impact may occur during the construction and operation of small conservation facilities, such as substations and checkpoints construction however the impact is expected to be minor and site specific and it can be mitigated through the application of ECoP (appended to the ESMF). Application of the CEF process during the preparation of the subprojects located in or near the PAs ensure that natural habitats will be adequately protected. 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.
- Mitigation measures proposed for PAW will also be applied for additional subprojects. Additional measures related to water pollution will ensure that mitigation measures will be adequate to avoid/reduce the risks of water pollution and public health, soil erosion, and/or impairment of downstream water quality and other water users. Strengthening institutional capacity on EIA compliance monitoring (under Component 1) could also contribute to reducing potential negative impacts of investment projects on local natural habitats while promotion of fish conservation zone could help increase fish habitats and natural fish stocks.

#### Forests OP/BP 4.36

- This policy is triggered since the proposed additional activities under Components 1 and 2 may involve changes in management of forest areas in PAs (financing PA management plans), which may then affect the rights and welfare of people and their dependence on the forests (i.e. the PAs). The project is expected to have beneficial impact and reduce the deforestation rates of targeted PAs. The ESMF includes screening procedures (and negative list) for project investments so that interventions which could have the potential to impact upon forested areas are not eligible for financing under the project. Participatory Social Assessment and Participatory Land Use Planning under the CEF process will ensure relevant government agencies and communities work to delegate protection/ production forests from community use areas, and communities will be supported to develop alternative livelihoods to reduce dependency on forest resources for livelihood. Conservation Agreements will be made with communities that include restriction of forest resource use and incentives for community compliance are provided through community grants.

#### Pest Management OP/BP 4.09

- LENS2 will not promote the use and finance procurement of pesticides. However, support to agriculture activities including the improvement of irrigation system compatible to PA and/or small community needs is eligible as a community grant that might support the future use of pesticides or present pest management practices. The use of pesticide is expected at a very small scale and can be mitigated through the implementation of PMP (appended to the ESMF). The potential use of pesticide will be assessed during each subproject screening. The 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.

#### Physical Cultural Resources (PCR) OP/BP 4.11

- LENS2 will not affect any known PCRs (e.g., historical, cultural, and/or archaeological, paleontological, religious, or unique natural values of national and/or regional cultural importance). However, the project area covers ethnic minority groups such as Hmong, Mien, Lao Tai and Khmu and there could be a limited number of graves, village cemeteries, and/or communal properties in spiritual forests in the subproject sites that may be affected by project activities. ESMF includes provisions for screening of PCRs during subproject investments and sites' location as well as inclusion of "chance find" procedures in ECoP, so that suitable mitigation measures are implemented and incorporated into the contract and corresponding PA management plan(s). The screening of PCR and "chance find" procedure will apply to all subprojects eligible for financing under LENS2 project.

#### Indigenous Peoples OP/BP 4.10

- Many LENS2 beneficiaries are expected to be ethnic minorities who are known in Lao PDR as Ethnic Groups and meet eligibility criteria under OP 4.10. For example, Hmong, Khmu, Mien, Makong, Bru and others are living in and around the PAs of the target provinces. These are considered to be vulnerable ethnic groups in Lao PDR as their livelihood is heavily based on subsistence agriculture and forest. The presence and involvement of these ethnic groups triggers this safeguard policy. The impact of the additional subprojects on these communities is generally positive, however, any negative impacts that may occur are addressed under the CEF that includes EFPP<sup>20</sup>. Where their broad community support is not ascertained based on free, prior and informed consultations, subprojects will not be implemented.

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<sup>20</sup>Equivalent to the Indigenous Peoples Planning Framework as required by OP/BP 4.10.



*Involuntary Resettlement OP/BP 4.12*

- The policy is triggered because LENS2 will support a stricter enforcement of protected areas management which will restrict the current access of local people to natural resources inside protected areas. Local people affected by LENS2 will benefit from more sustainable access to forest and other natural resources and project support for alternative livelihoods which seeks to enhance their livelihoods sustainably. Nonetheless, short-term loss of livelihood could be unavoidable because adaptation to changes in resource allocation and livelihoods may be a longer-term process. In line with OP 4.12, a CEF was developed to allow meaningful participation of affected people in developing a plan of action (Community Action Plan - CAP) to enhance livelihood in the long run and mitigate short-term livelihood losses, and grant financing will be provided to support implementing the CAP. The project will not involve physical relocation. However, minor land acquisition may be required under community livelihood activities and/or small repair, rehabilitation or new construction of office buildings and other facilities on public land. A RPF was also developed that set out policies and procedures for the limited land acquisition. RPF is attached to CEF. During the project implementation, if land acquisition is required, an abbreviated Resettlement Action Plan(s) (RAP) will be prepared and implemented for any activities that require involuntary land acquisition.

*Safety of Dams OP/BP 4.37*

- LENS2 will not finance construction/rehabilitation of dams/reservoir or support a subproject that relies and/or impact on the performance of an existing dam or a dam under construction as described in the policy and this has been incorporated in the “Negative List”. The subproject safeguard screening will ensure that none of the subproject activity is dependent and/or impact of any existing dam or dam under construction.

*Projects on International Waterways OP/BP 7.50*

- As the LENS2 activities under the EPF WRM window (Component 2) would touch the rivers, and all the rivers in Lao PDR are considered as international waterways under the context of the Bank’s Operational Policy, the Bank’s Safeguards Policy on the International Waterways (OP.7.50) is triggered. EPFO sent a request to WB to notify the riparian countries (China, Myanmar, and the Mekong River Commission) about the project as required by OP/BP 7.50 and action is undertaken by the Bank team.

*Projects in Disputed Areas OP/BP 7.60*

- There is no disputed area in the provinces selected for LENS2.

## IV. POTENTIAL PROJECT IMPACTS

### 4.1 Country Profile and Sector Issues

21. **Country overview:** Lao PDR is one of the least developed countries in Southeast Asia but rich in water, forests, and mineral resources (per capita) which have been used extensively for socioeconomic development of the country during the past 10 years. Lao PDR has forests cover about 40% of the country which is the highest percentage in Southeast Asia, is home to many endangered species, and also has high potential for hydropower development. With a population of about 6 million, the country is sparsely populated and rich in ethnic groups. With rapid development in the country especially in mining and hydropower sectors, poverty reduction has declines from 46% in 1993 to 25% in 2010 and one third of population gained access to basic services especially on water and sanitation and electricity. Achieving GoL policy to graduate from the least developed country by 2020 would require continuation of an 8% annual growth rate of Gross Domestic Product and a number of policy, legal, and institutional measures are being implemented including promotion of hydropower development (to become “*the battery of Asia*”) as well as improving effectiveness of natural resources and environmental management.

22. A number of technical assistance and investment projects related to forestry, hydropower and mining, integrated water resources management, and environmental management are being carried out with supports from various international agencies and/or donors. Nonetheless given rapid development, complexity of the issues, and limited capacity of human and financial resources in the country, additional technical assistance and financial supports on capacity building and institutional development in natural resources and environmental management will be necessary for Lao PDR. Literature review suggested that key priority issues for natural resources and environmental management sector in Lao PDR include (a) degradation of forest cover and natural resources in light of rapid development challenges, (b) new agencies with limited human and financial resources and capacity (technical and management), (c) limited funding mechanism and sources to ensure effective management of natural resources and environment, and (d) in effective sector coordination. Sector background and key issues are summarized in [Appendix 1](#).

### 4.2Safeguard Risks

23. The overall safeguards risks for LENS2 is considered “moderate”. Given the nature of the activities (see Section I) most of the subprojects would result in positive impacts especially in medium and long term. PICE subprojects are unlikely to create any safeguard risks and the subprojects related to legal development and/or enforcement will be conducted in consultation with key agencies and stakeholders. Scope and nature of the potential impacts and mitigation measures are discussed below.

### 4.3Impacts of Component 1 Subprojects (PICE window)

24. Potential impacts of PICE additional subprojects will be positive. LENS2 addition subprojects to be implemented under this component aims to fund the subprojects that improve capacity of key agencies and provinces on strategic planning, coordination, and/or implementation of technical and financial aspects related to natural resources and environmental management in Lao PDR through an effective/proactive coordination and cooperation effort under MoNRE leadership. The subprojects will strengthen the capacity of eligible SDAs to (1) execute and coordinate national planning for biodiversity, watershed management and environment and social impacts regulations, (2) manage the system conservation and protection forests, (3) cooperate with neighboring countries, monitor and control the illegal wildlife trade, (4) develop and implement educational and training programs in environment and social impact regulations, protected area and wildlife sciences, and (5) raise the awareness of decision makers on general environment and social issues including watershed management, biodiversity and wildlife trade issues. LENS2 will also support human resources capacity development which is critically insufficient to meet the challenges of inclusive and green growth by providing subproject to the National University of Laos (NUoL) with social and

environment degrees and with short and long term trainings and re-training. Given the legal and institutional transition LENS2 will provide supports to MoNRE on strategic planning, strengthening the policy, legal or regulatory frameworks, inter-sectoral collaboration, and on engagement with key environmental constituency. More importantly given that MoNRE and PoNREs are not yet fully able to monitor Environment Compliance Certificates (ECC) during construction or operation, LENS2 subprojects could help building capacity of DESIA and PoNRE to monitor the ECC and/or the Standard Environmental and Social Obligations (SESO) application and/or monitoring compliance. LENS2 additional subprojects could also support other ministries such as Public Works and Transport, Energy and Mines, Defence, Agriculture and Forestry if their proposals meet the LENS2 subproject eligibility criteria.

25. Although there is strong willingness to improve sustainability through upgrading of the laws and institutions<sup>21</sup>, implementation is constrained by the nature of small and new agencies with limited qualified staff and budget. There are also still some gaps remaining in the natural resource policy framework especially those related to budget allocation, revenue/benefits sharing, and other financial aspects and the key challenges are ways to translate many of the newly enacted laws into regulations and to facilitate effective coordination and cooperation among key agencies on monitoring and enforcement. Efforts will be made to address financial aspects to enhance sustainability of the benefits after the project is completed.

26. Potential negative impact of these subprojects is considered low; however given that some technical assistance and capacity building activities may involve providing advice or support to safeguards related legislation and guidelines, EPFO safeguard team will ensure that public consultation is included as the subproject activities and will keep proper records. .

#### **4.4 Impacts of Component 2 Subprojects (CBI window)**

27. Potential impacts of CBI and WRM subprojects would be positive in medium and longer term especially for protection and management of protection forests and/or water resources (i.e. at provincial and districts) in close cooperation with local communities. LENS additional subprojects to be implemented under this component aims to fund subprojects that help improving the capacity of forest resources management institutions, civil society and communities to work together to manage forest resources in conservation area and protection forests. The subprojects will strengthen: (a) the management of selected PAs and wildlife in the participating provinces including, *inter alia*, design of protected area management plans, development and implementation of improved patrolling mechanisms, biodiversity monitoring, macro zoning, awareness raising, carrying out of community engagement, livelihood development and other activities related to the implementation of the CEF and ESMF, and implementation of cross border cooperation and twinning arrangements; and (b) the capacity of provincial and district authorities and other stakeholders to coordinate and support the management of protected areas, water resources, and to control the illegal wildlife and timber trade in the participating provinces.

28. In a short term however the subprojects may create negative impacts on local environment and natural habitats and may involve ethnic groups and restriction of resources access/use, especially those related to management of PAs, fisheries, floods, droughts, and/or soil/river bank erosion. These impacts could be mitigated through the application of the CEF process which will be applied during the planning and implementation of the PA related subprojects. EPFO and the WB will provide training on the CEF process and will closely monitor the application of the CEF during the preparation of proposals and the implementation of the subprojects. For the non-PA related

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<sup>21</sup>To regulate the unsustainable use of natural resources, the policy framework of laws, decrees and regulations has been responsive to changing national circumstances and emerging issues or challenges. These include: Water and Water Resource Law (currently under review), Land Law (currently under review), Environment Protection Law (2012), Mineral Law (2011), Forestry Law (2007) and Wildlife Law (2007). Recent legislation and policy encourages the protection and sustainable use of natural resources through the minimization of negative environmental impacts and reinforces the framework for environmentally sustainable development.

subprojects, the mitigation measures will be prepared as part of the ESMP according to the scope and nature of the potential negative impacts and/or safeguard risks. For the subproject involving small civil works, application of the mitigation measures for small infrastructure and/or the ECoP (Appendixes 4 and 5) will be considered while application of the PMP (Appendix 8) will be applied when the subproject involves the use of pesticides. When the non-PA subproject involve ethnic groups, limited resources access/uses of local people, and/or minor land acquisition, the EGPF, the PF, and/or the RPF developed as part of the CEF will be applied accordingly. For the water resources related subproject (watershed, land use, and water quality/uses) due consideration will be given to apply the concept of integrated water resources management (IWRM) and/or integrated river basin management (IRBM) during the planning and decision making process as well as ensuring that soil erosion will be adequately managed and potential land/water uses conflicts and/or public health risks will be minimized. Active involvement and participation of LWU, local LFNC, and local community representatives will be encouraged throughout the subproject cycle. Details are provided in Section V.

#### 4.5 Impacts of Component 4 (EPFO)

29. Potential impacts of this component will be positive. Under this component, LENS2 has been designed to also strengthen EPFO's capacity in the area of business planning, fund raising, technical, and monitoring capacity as well as in communication and engagement with the key stakeholders and potential donors. EPF will provide safeguard training to SDA and key agencies to ensure compliance with safeguard requirements. EPFO capacity development will support capacity building of EPFO staff and systems to improve EPFO organization and staffing for effectiveness and efficiency as well as optimize various business functions of EPFO such as (a) fund raising, (b) planning and M&E, (c) communicating. An EPFO business plan is being prepared to identify strategic direction to ensure effective and sustainable management of EPFO operations.

30. Similar to PAW subprojects safeguard actions regarding the potential external impacts and mitigation will be applied to LENS2 subprojects and the impact will be positive. During the subproject preparation and approval EPFO staff will identify possible linkage between the subproject activities/studies and the on-going or future development activities that occur in the subproject areas and assist the agencies (MONRE/PONRE, and PA team) to monitor these investment projects. Five external impacts and mitigation to be applied are described in Appendix 3 Part II of this ESMF and they could be highlighted as follows:

External Risks/Linkage issues	Appendix 3 Part II
(1) village consolidation	See Section A3.11 for villages that are consolidated in the past and villages scheduled for consolidation
(2) road construction/renovation and concession-granting,	See Section A3.12
(3) illegal wildlife trade and illegal logging,	See Section A3.13
(4) undesirable fires,	See Section A3.14
(5) increased shifting cultivation.	See Section A3.15

## V. PROPOSED MITIGATION MEASURES

31. To mitigate the potential impacts of the additional activities to be implemented under LENS2, the following key measures are proposed: (1) safeguard integration and gender mainstreaming; (2) safeguard screening and clearance of subprojects, including consultation and information disclosure; (3) safeguard implementation, monitoring and reporting; (4) grievance mechanism; and (5) safeguard training and capacity building including human resources development especially on PA management and wildlife trafficking, water resources management, CEF, and other environmental and social safeguards which is the main objective of LENS2. Details on (1), (2), (3), and (4) are discussed below while details on (5) are discussed in Section VI. Given that PAW has only recently started and no lessons on actual safeguard implementation are available.

### 5.1 Safeguard Integration and Gender Mainstreaming

32. **Safeguards integration:** Two safeguard documents have been prepared i.e. this ESMF and the CEF which has incorporated the RPF, PF, and EGPF in a single document. This ESMF will be applied to all LENS2 subproject while the CEF will be applied when the proposed subprojects are located in the protected areas covering conservation protection areas and protection forest areas at national, provincial, and districts levels and/or involve minor land acquisitions, restriction to resources access, and ethnic groups. If, there is a case during implementation where their interpretation of the same issue appears to be in contradiction, the ESMF will prevail on environment issues and the CEF will prevail on social mitigation issues. Safeguard requirements will be integrated into the subproject cycle and specific requirements will be included in the Project Implementation Manual (PIM). The SDA will be responsible for implementation of the ESMP and safeguard performance will be monitored by EPFO. For the subproject that involves minor land acquisitions, restriction to resources access, and ethnic groups, the activities will be designed in line with the CEF. The SDA will assure that environmental and social safeguards are integrated in the participatory planning processes in subproject villages such as consultations, community focus groups, and household data acquisition. An outcome of the consultation process could be a Participatory Land Use Planning (PLUP), a Community Action Plan (CAP), and/or a Community Conservation Agreement (CCA) for each village. Forms required for approval of community grants will be included in site-specific CAPs. The community through an agreement with the implementing agency will endorse CAPs.

33. **Consultation of policies and regulations related activities:** Given that some technical assistance and capacity building activities may involve providing advice or support to safeguards related legislation, guidelines, instruments or capacity building activities that subsequently may result in physical footprints, EPFO safeguard team will ensure that the subproject outputs are in line with the national regulations as well as the ESMF which has been developed in compliance with Bank safeguard policies. The WB interim guidelines on the application of safeguard policies in the technical assistance activities (Appendix 9) will be applied given due attention to ensure effective consultation with LFNC and local authorities during the preparation and implementation of the related subprojects both at central, provincial, and local levels. Matrix below demonstrates how the safeguard policy on technical assistance activities is integrated into the activities under Component 1. All the Component 1 activities could be categorized as Types 1-3<sup>22</sup>.

SDA	Component 1 Sub-projects	\$	Ways to address safeguard issues
MONRE/DEQP	Capacity building for environment promotion and scaling up integrated spatial planning (ISP) in selected provinces	300,000	These subprojects will be designed to promote environmental and social capacity building and
MONRE/	Capacity building for screening,	600,000	

<sup>22</sup> Type 1: Strengthening client capacity; Type 2: Assisting in formulation of policies, programs, plans, strategies or legal frameworks etc.; Type 3: Land use planning or natural resources management (NRM)

DESIA	monitoring and enforcement of environment and social standards in public and private investment projects		institutional strengthening. The activities that are related to policy, regulations, and operations etc. that may have broader impacts to other agencies and stakeholders will be made through consultation process and the activities would build capacity and/or provide training to sector agencies and provinces to integrate environmental and social concerns into their work. Activities related to land use planning will follow the principles and participatory process described in the CEF which has been developed in line with OP4.12 and OP4.10.  EPFO staff will conduct safeguard screening and complete the screening form as required by the ESMF.
MONRE/PCD	Capacity and institution building for pollution reduction especially from industries and small and medium enterprises	300,000	
NAPA	Development of an environment and social curriculum and teachers training at the National Academy of Politic and Administration (NAPA)'s	100,000	
NUOL-FSS	Improvement of the social curriculum of the NUOL Faculty of Social Science (NUOL-FSS)	450,000	
NUOL-FES	Capacity building, curriculum development and large scale professional training by the NUOL Faculty of Environment Science (NUOL-FES)	200,000	
NUOL-FEB	Applied research on Payment for Ecosystem Services (PES) and on Biodiversity Offset by the NUOL Faculty of Economic and Business (NUOL-FEB)	200,000	
PONRE ESIA Div.	Strengthening PONRE divisions for implementation of the PESAP with a focus on enforcement of environment and social impact regulations in eligible provinces.	200,000 each	

34. **Gender Mainstreaming:** In Lao PDR women can play an active role in the sustainable use of natural resources and environmental quality, effective nitrated of women role in all aspects of LENS2 subprojects are considered necessary. Safeguard consultation with local communities including women conducted during the consultation in the five project provinces suggested that women are willing to actively participate in the activities related to livelihood development and natural resources management especially those related to water supply, floods, and droughts. Gender has been mainstreamed in LENS2 design and steps will be carried out during implementation to ensure gender issues and the special needs of women receive adequate attention. All subproject proposals will need to demonstrate their approach to considering gender mainstreaming. The community-based development technical assistance will be responsible for gender issues. At mid-term, a gender assessment will be conducted and results reflected in project design and implementation. The Project monitoring framework includes gender specific data. Progress reports at subproject and consolidated level will systematically report on gender aspects. In subprojects related to CBI management, it is expected that SDAs will recruit women facilitators with local language skills to be part of the subproject extension and livelihood teams, especially in minority ethnic group communities. CEF consultations, endorsement of CAPs, and CCAs will ensure women are active in participation, and receive due representation in all decisions. Data collected on livelihoods and forest resources utilization will be disaggregated by gender.

## 5.2 Safeguard Screening and Clearance of Subprojects

### (5.2.1) Overall process

35. Safeguard screening, environmental assessment, and implementation of mitigation measures to reduce negative impacts is an important process to ensure that LENS2 subprojects will not create adverse negative impacts on local environment and local people. Figure 5.1 presents a safeguard screening, review/clearance, and implementation/monitoring process for LENS2 and details are

discussed in sections (b), (c), and (d) below. Safeguard eligibility screening will ensure that subprojects comprising activities identified in the “Negative List” (Table 5.1) will not be financed under LENS2. The eligible subprojects/activities are then screened for safeguard issues/risks to determine the nature of potential impacts and extent of safeguard risks and the process and/or documents that may be required for safeguard clearance. During the conceptual stage of subproject proposal preparation, EPFO will explain all LENS2 requirements including safeguard and assist the SDA in identifying which safeguard are triggered and advise on actions and steps to be carried out to secure safeguard clearance either from EPFO and/or WB. It is anticipated that an ESMP will be developed and implemented for all subprojects supported protected areas (PA) management (under CBI window), which CEF will also be applied. However, the scope of the mitigation can be adjusted according to the risk level/issues identified during the subproject screening. All the water resources management subprojects (WRM window) will also be screened for the “Negative List” and potential impacts on downstream water users (see details in Section 5.3 and 5.4). For TA and capacity building subprojects the screening will be taken into account the application of the Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities and the subprojects involve civil works will incorporate ECoP into works contract.

36. The ESMP and CEF have been disclosed in local language in the 8 project provinces. The proposed ESMP (if needed) will be attached to the subproject proposal to be submitted to EPFO for appraisal. The appraised proposal then submitted to the Technical Committee of the EPF and the World Bank for clearance before submitting to the EPF Board for approval.

***(5.2.2) “Negative List” screening***

37. Table 5.1 provides the negative checklist for LENS2. The appraisal is undertaken to evaluate if an investment is likely to be in breach of one or more of a core set of Safeguard prohibited activities. If a proposed sub-project is non-compliant to even one of the “Negative List” items it will not receive approval for funding and will need to be revised and resubmitted for approval.

***(5.2.3) Identification of safeguard risks/issues and preparation of mitigation measures (Step 2)***

38. For the eligible subprojects, the SDA in close consultation with EPFO safeguard staff will apply criteria/guidelines for identification of possible impacts and mitigation requirements including the preparation of an ESMP and/or the application of CEF.

Figure 5.1: Schematic safeguard screening process

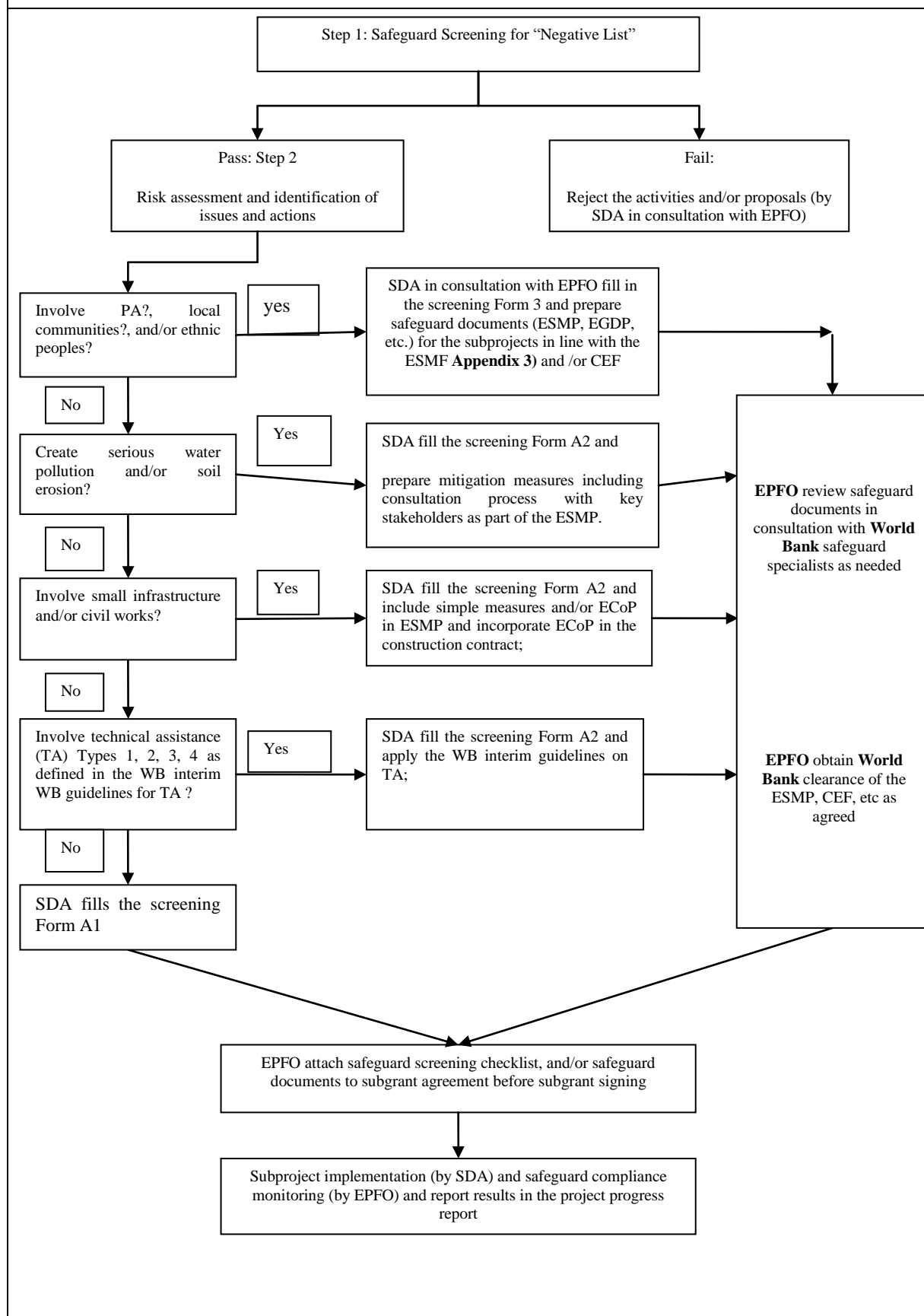




Table 5.1 Negative List of Prohibited Activities

1	New settlements or expansion of existing settlements outside the area defined by the PLUP or in any zone not gazetted for agriculture or habitation in the macro zoning of the NPA.
2	Creation of adverse significant impacts on local people including ethnic groups that are not acceptable to them, even with the mitigation measures developed in their participation.
3	Physical relocation and/or demolition of residential structures of households
4	Use of PAW subprojects or activities as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation. Project finance can be used in villagers that were consolidated only if the requirements provided in Section 9.1, Stage 1 of the CEF have been fully met.
5	Significant damage or loss to cultural property, including sites having archaeological (prehistoric), paleontological, historical, religious, cultural and unique natural values.
6	Construction of new roads, road rehabilitation, road surfacing, or track upgrading of any kind inside natural habitats and existing or proposed protected areas and in general any construction expected to lead to negative environmental impacts.
7	Introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive, and introduction of genetically modified plant varieties into a designated project area.
8	Forestry operations, including logging, harvesting or processing of timber and non-timber products (NTFP); however support to sustainable harvesting and processing of NTFPs is allowed if accompanied with a management plan for the sustainable use of the resources.
9	Forestry operations on land or in watersheds in a manner that is likely to contribute to a villages increased vulnerability to natural disasters.
10	Conversion or degradation of natural habitat and any unsustainable exploitation of natural resources including NTFPs.
11	Production or trade in wildlife products or other products or activity deemed illegal under Lao PDR laws, regulations, or international conventions and agreements, or subject to international bans.
11	The production, processing, handling, storage or sale of tobacco or products containing tobacco.
12	Trade in any products with businesses engaged in exploitative environmental or social behaviour; or engaged in any unauthorized activities especially those related to natural resources.
13	Purchase pesticides, insecticides, herbicides and other dangerous chemicals exceeding the amount required to treat efficiently the infected area and which are not on the national list of chemicals allowed to be used in country or if the pesticides are banned in line with WHO regulations. However, if pest invasion occurs, small amount of eligible and registered pesticides in Lao PDR is allowed if accompanied with a training of farmers or villagers to ensure its safe uses and World Bank's clearance is needed. If the use of pesticide is necessary, the SDA will refer to the Pesticide Management Plan.
14	Purchase of guns; chain saws; asbestos, dynamites, destructive hunting and fishing gears and other investments detrimental to the environment and in general purchase of goods intended

	for a military purpose or luxury consumption.
15	Labor and working conditions involving harmful, exploitative, involuntary or compulsory forms of labor, forced labor <sup>23</sup> , child labor <sup>24</sup> or significant occupational health and safety issues
16	Sub-projects or activities that require a full EIA (category A).
17	New settlements or expansion of existing settlements outside the area defined by the PLUP or in any zone not gazetted for agriculture or habitation in the macro zoning of PAs.
18	Irrigation over 10 hectares and water supply capacity over 50 liters per second

39. If the subproject do not triggered any item in the “Negative List”, the proposal is moved to next steps i.e. to determine safeguard triggered, assess safeguard risks, identify issues and mitigation measures, and prepare appropriate mitigation measures as part of the ESMP and/or apply requirement of the CEF. A stand alone ESMP will be prepared for each iof the sub-project supporting a PA and the ESMP will address the requirements of OP4.01, OP4.04, OP4.36, OP 4.09, OP 4.10, OP4.11, and OP4.12 that are relevant for the subprojects. Specifically, the ESMP will include: (a) Baseline information on each of the participating PAs, including its current management practices, stakeholders involved in its management, ongoing and planned infrastructures (e.g., roads, transmission lines, hydropower projects) or other natural resource excavation activities (e.g., mining, wood factory) in the participating PA, the extent to which the communities are using the timber/non-timber forest resources, main biodiversity value, etc.; (b) Assessment of whether the ongoing/planned infrastructures or other natural resource excavation activates would significantly affect the effectiveness of the project activities in achieving the PDO; and (c) Preliminary review of the existing PA management plan(s) for the participating PAs, if available, and identify areas that require improvements to achieve the project objectives, especially in the context of the findings from the above assessment.

40. During the screening, due attention should be given to address the following aspects:

- Natural habitats, forests, wildlife, biodiversity, and water resources: Any subproject involve the utilization, conservation, and management of water, forests, biodiversity, and natural habitats in and near PAs must collect local baseline data regarding the issues and activities to be carried out as part of the subproject, including undertaking consultation with affected population in line with the CEF. Key issues and mitigation measures for PA related subproject are presented in [Appendix 3](#) and briefly highlighted in Section 5.4.
- Civil works. Minor civil works such as renovation of offices and/or a very small structure are allowed for LENS2. However, subproject owner and EPFO will ensure that all subprojects that involve civil works will comply with GoL regulations and that mitigation measures will be prepared, incorporated, and implemented for any proposal that involves construction work or changes to land or water use that may generate negative environmental impacts. The first fundamental measure is to avoid or minimize the negative impacts to the greatest extent possible through exploring alternate project design.

<sup>23</sup>Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

<sup>24</sup>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.

Small-scale construction activities may proceed with the application of the ECoP prepared for LENS2 (see [Appendix 5](#)).

- Land acquisition. Land acquisition must be avoided or minimized to the greatest extent possible through exploring alternate project design. If necessary, small land acquisition could be conducted in line with the principles and procedures described in [Annex 1 of CEF](#). Bank prior consultation, appropriate documentation, and post review will be necessary.
- Resource access restriction: Any proposal that would impose new restrictions on access to resources in legally designated parks or protected areas would require preparation of a *Process Framework* (PF) which has been incorporated into the CEF which describes a participatory process to be undertaken during subproject implementation to identify and implement measures to mitigate adverse impacts caused by the access restrictions. EPFO approval of the PF of the subproject is required prior to the subproject implementation. Bank prior consultation, appropriate documentation, and post review will be necessary.
- Ethnic Groups: Any subproject that would affect an ethnic group (with defining characteristics of Indigenous Peoples, as stated in World Bank OP 4.10) must first undertake a *social assessment process*, through which “*free, prior and informed consultation*” with affected ethnic groups results in expression of broad community support. Such consultations must be conducted in a language and location suitable for effective local participation. The subproject subsequently should be designed to ensure that it provides culturally appropriate opportunities for ethnic groups to benefit from the project, as well as to provide measures to mitigate any adverse impacts on ethnic communities. “Ethnic Groups” in the LENS2 context refers to Mon-Khmer, Hmong-Mien, Sino-Tibetan and Tai-upland ethno-linguistic groups, who are culturally distinct from the lowland Lao majority population. For subprojects potentially affecting ethnic groups, guidelines provided in the [Annex 3 of the CEF](#) must be followed. These measures are described in the CEF as the Community Action Plan (CAP) which comprises all key elements of an *Ethnic Group Development Plan* (EGDP) described in OP/BP 4.12.
- TA activities: The subproject involve TA activities (Types 1, 2, 3, 4) as defined in the WB interim WB guidelines for TA) will observe the guidelines provided in [Appendix 9](#).

#### **(5.2.4) Safeguard documentation**

41. *Documentation:* potential negative impacts and the proposed mitigation measures will be identified and documented in the form of ESMP, consultation report, and/or specific social safeguard instruments as required by the CEF including the results of the safeguard screening which will be recorded on appropriate forms as follows (see forms in [Appendix 6](#)):

- *Form A1: No impact project.* Used when a proposal is unlikely to involve any civil works, land use change, or cause negative impacts on the environment, natural habitats, or physical cultural resources.
- *Form A2: Low impact project.* Used if the proposal will involve small civil works, small land acquisition, minor land use change; affect physical cultural resources, or natural habitats. Form A2 is accompanied by a Screening Questionnaire and the applicant may be required to provide detailed information, at the request of the EPFO safeguard officer.
- *Form A3 Moderate impact project.* Used if the proposal involves significant land acquisition or changes, or may create significant impacts on ethnic groups, physical cultural resources, natural habitats, or other environmental or social aspects. Form A3 is

accompanied by a detailed Screening Questionnaire and may also involve the provision of detailed information at the request of the EPFO safeguard officer.

#### ***(5.2.5)Safeguard review and clearances***

42. EPFO will be responsible for review of the safeguard documents including safeguard screening forms and this can be done as part of the subproject appraisal and/or before the subgrant signing. The EPFO manager will approve safeguard clearance of all subprojects. If denied clearance the proposal will be rejected. Given limited safeguard capacity at EPFO during the next few years, all the Component 2 subprojects involving investment in PAs (Form A2 and A3 type) will require WB safeguard clearance before signing and/or extension of the subgrant. No prior review will be required for the Component 1 subproject (Form A1) but post review may be conducted. EPFO safeguard clearance will be required before the signing of subgrants between EPFO and SDA. All the safeguard documentation (screening and other documents) will be kept in the projects files for later review. The EPFO safeguard officer will ensure that agreed actions are included in the subgrant agreement and that the applicant understands and commits to implementing agreed mitigations measures.

#### ***(5.2.6) Consultation and disclosure process***

43. Consultation on and disclosure of safeguard issues and mitigation measures are required during the preparation of the ESMP and CEF and meeting this condition will be considered by EPFO as part of the safeguard clearance of the subprojects. Information related to the approved subprojects and mitigation of social or environmental impacts, including mitigation plans, will be made available for local public access at EPF office and website as well as the subproject office and website (if available). The ESMP and CEF will be disclosed in local language in all relevant district offices and provincial offices where the subproject is located. The proposed ESMP will be attached to the subproject proposal to be submitted to EPF for appraisal. The appraised proposal then submitted to the Technical Committee of the EPF and the World Bank for clearance before submitting to the EPF Board for approval. EPFO will inform all the subprojects on these requirements and provide guidance as needed.

### **5.3 Safeguard Implementation, supervision, monitoring and reporting**

44. The SDA will implement the subproject activities including safeguards. EPFO safeguard officer and/or other operations staff will supervise and monitor the implementation performance and periodically report to the EPFO manager. The safeguard performance will be included the progress/results report at the project and subproject levels. The World Bank will conduct safeguard supervision, monitoring, and post review. Responsibility of key agency is summarized in Section VI.

#### **5.4 Specific Guidelines for the ESMP Measures**

45. The ESMP will be prepared when the subproject activities are likely to have negative impacts on local environment, water resources, natural habitats, forests, biodiversity values, and/or local communities. Scope of the ESMP will be identified during the screening of the subproject and the activities will be carried out during the preparation of the proposals in close consultation with EPFO and/or the WB. Given that most of the CBI subprojects may be carried out in protected area (conservation area and protection forest area) at national, provincial, and local levels, the following principles will be applied:

- ***PA subprojects:*** Similar to those identified/proposed in Component 2 of PAW project, key issues and mitigation measures include those related to (i) PA macro zoning and demarcation activities focusing on land use planning at PA level; (ii) increased patrolling activities; (iii) alternative livelihood development activities; (iv) development of small infrastructure activities; (v) ecotourism activities, especially on illegal wildlife trade; (vi) increased poaching and illegal logging from roads and trails; (vii) pesticide management due to

potential and improper use of pesticides and fertilisers that may cause harm to humans, biodiversity and the environment; (viii) physical cultural resources due to loss, damage, theft, of physical cultural resources from project related activities; (ix) impact due to guidelines, policy, and human resources development; and (x) those related to the potential external impacts due to (a) village consolidation; (b) roads and concessions due to incompatible concession granting in PAs and adjacent areas and impact of roads construction through PAs; (c) illegal wildlife and timber harvesting and trade; (d) increased fire frequency; and (e) shifting cultivation is driver of forest cover reduction. Additional measures to mitigate potential impacts on water resources, pollution, and safety are also incorporated. Scope and extent of the mitigation measures could be adjusted in line with the nature and scale of safeguard risks. The CEF process will also be applied to all PAs-related subprojects.

- For the activities carrying out in the protected areas covering national, provincial, and district conservation areas (NCBA) and protection forest area (PFA), the mitigation measure applied for PAW project will be applied however the extent of the mitigation measures can be adjusted to fit the scale of the impacts. Specific issues and mitigation measures identified for the subproject located in protected area is provide in Appendix 3. Key mitigation measures include, but not limited to, (i) land use zoning according to the national regulations on PAs through active participation of local authorities and local communities following the procedures provided in the CEF; (ii) promotion of conservation activities by local community; (iii) taking measures to reduce potential impacts due to patrolling and/or ecotourism activities, especially those related to illegal logging and wildlife trade; (iv) application of mitigation measures for small infrastructure subprojects, simplified ECOP, and/or provision of knowledge and information on good practices to avoid/proper use of pesticides and fertilisers; and (v) setting up consultation/communication mechanism to avoid/reduce potential conflicts in land and water uses and reducing UXO risk. Scope and extent of the mitigation measures could be adjusted in line with the nature and scale of safeguard risks. The CEF process will also be applied to all PAs subprojects.
- In addition, similar to PAW, there are requirements to mitigate potential external impacts of non-project activities especially those due to (a) village consolidation; (b) roads and concessions due to incompatible concession granting in PAs and adjacent areas and impact of roads construction through PAs; (c) illegal wildlife and timber harvesting and trade; (d) increased fire frequency; and (e) shifting cultivation is driver of forest cover reduction. As highlighted in PAW project, there are also concerns on the potential external impacts and mitigations is one of the concerned for activities located in PA. Key mitigation measures are highlighted as follows:

- *Village consolidation:* In order to address the risks associated with the government's ongoing program of village consolidation, the LENS2 will not work in villages that will be consolidated or proposed for consolidation within the life of the Project. In villages that have been consolidated in the past, project finance can be used if, and only if, land and resource tenure issues associated with the consolidation have been resolved to the satisfaction of villagers. Details on the Project approach to village consolidations are provided in CEF.
- *Road activities:* All public forests are subjected to a form or another of infrastructure/concession overlap. But all must comply with the environment impact legislation, some of which, such as Social and Environment Standard for Operation (SESO), are supported by the Bank and International Finance Corporation (IFC) under the Hydropower and mining TA project. The World Bank is not involved in any of these projects or concessions. However, the World Bank will raise the issue of large infrastructure development in highly valued biodiversity areas and provide advice to the Government as well as support if requested. The linkage to these

activities and any associated impacts will be assessed as part of subprojects preparation and approval. The Project will help MoNRE contribute to the discussion on environment law compliance, build the capacity of national and provincial teams to monitor such projects, help develop a database of large projects so they can better anticipate their environmental and social impacts and feasibility, and help explore alternative mechanism such as payment for ecosystem services and biodiversity offsets. These potential developments will be taken into account, in the watershed protection plans, which may be developed and initiated during the Project. Also, other Bank projects such as the hydropower and mining TA project are helping the other GoL departments' capacity to comply with, or monitor compliance of safeguard requirements.

- *Illegal logging:* If it is determined that the area of influence of a sub-project includes a concession risks especially for road construction, mines and hydropower that overlap with the forest or natural habitat areas supported by the Project, the sub-project ESMPs will include an inventory of such concession and infrastructure projects and an assessment of their severity. The current PDO outcome has been designed to seek outcomes that are still relevant should these concessions and projects proceed without environment mitigation. On this basis, discussions will be held with provincial governments to avoid if possible overlap between concession areas and the Project areas, offer advice and support and ensure that they are not an obstacle to the Project PDO. In case it is determined that an overlapping concession (or project) is either non-compliant with national safeguard laws or in opposition with the PDO, and that the promoters are proceeding with implementation, all further expenses under the sub-project will be deemed ineligible, the sub-project will be cancelled and no additional fund would be made available for that sub-project.
- *Undesirable fires:* This will be mitigated through document fire and management practices that have demonstrated sustainable fire management practices; disseminate this information to project villages and resource managers; discuss fire management with local villages through situational analysis (High-risk villages – those with excessive use that risks high quality environment – should be considered for behavioural change interventions; consider fire risks, fire sensitive areas and fire management practices when drafting the PA Management Plans; and build community members and PA staff capacity in fire detection, prevention and suppression.
- *Increased shifting cultivation:* This issue is difficult to deal with given the nature of poverty and agriculture practices in Lao PDR. However, it is anticipated that it is necessary to build the community capacity and incentive to reduce incidence of forest conversion by reducing expansion of shifting cultivation practices, while simultaneously ensuring adequate areas and suitable land resources are provided to local communities to maintain food security. Key mitigation measures include land use planning will need to ensure that adequate lands, both quality and quantity, are retained for the purpose of food security including shifting cultivation. This includes regulating land use in restored and regenerated forests and livelihood grants will be used to build the capacity and infrastructure requirements of securities to expand livelihood opportunities as a means to offset dependency on shifting cultivation.
- ***For the non-PA subprojects,*** the mitigation measures will be prepared as part of the ESMP according to the scope and nature of the potential negative impacts and/or safeguard risks. For the subproject involve forest, land use, and water quality/uses due consideration will be given to ensure that the soil erosion will be adequately managed and potential land/water uses conflicts and/or public health risks will be minimized and the pest management plan (Appendix 8) will be applied as appropriate. For the subproject involving small civil works, application of

the mitigation measures for small infrastructure and/or the simplified ECoP ([Appendixes 4 and 5](#)) will be considered.

- When the non-PA subproject involve ethnic groups, limited resources access/uses of local people, and/or minor land acquisition, the Ethnic Group Planning Framework (EGPF), the Process Framework (PF), and/or the Resettlement Policy Framework (RPF) developed as part of the CEF will be applied accordingly. The CEF is prepared as a standalone document and is considered as an integral part to the ESMF however the basic principle and process are described in Section IV of the CEF.
- For the subproject involve technical assistance and capacity building activities the WB Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank will be considered.
- The draft ESMF and CEF have been translated and disclosed in EPFO website as well as at the 8 project provinces while the ESMP and CEF documents will be disclosed (both in Lao and English) at the SDA project offices at provincial and district levels as appropriate. Close consultation with local communities will be maintained throughout the subproject implementation.

### **5.5 Key principles of the CEF Measures**

46. The CEF provides guidelines to the SDA on how to engage, consult, support and monitor communities targeted in such a way that their livelihood is improved, and their role and benefits in the protection and/or conservation areas is enhanced. The CEF proposes a process whereby communities are consulted on, and can meaningfully participate in, their land and the protected area planning and the implementation of such plans. Communities will play a key role in identifying issues and defining management and mitigation actions which may be needed to minimize first, and if not avoidable, address them. Issues that are likely to be identified include the loss of access to natural resources, and associated loss of income, that could arise from an improved law enforcement of protected area.

47. The core principles are highlighted as follows:

- All communities will be approached in the spirit of honest and constructive collaboration, and clearly explained about the rationale for biodiversity conservation, and of the subproject's purpose, activities, potential benefits and potential losses.
- Where broad community support is not established based on "*free, prior and informed consultations*", such communities have the right to opt out of the project. In order to minimize the risk that a broad community support is not established, all efforts will be made so Participatory Land Use Plan (PLUP), Community Conservation Action Plan (CCAP) and Community Conservation Agreement (CCA) are developed in a participatory manner and that income streams of affected people will be enhanced sustainably
- All communities, regardless of their ethnic group or social status, will be engaged in an inclusive and culturally relevant manner on the basis of a free, prior and informed consultation aimed at establishing broad-based and sustainable community support for the project.
- All communities will be informed by the responsible SDA throughout the project implementation through appropriate means of information, education and communication. Communication throughout the project cycle will use appropriate information, education, and communication (IEC) materials to respond to issues of language and ethnicity, literacy/illiteracy, gender, and social vulnerability.

- All communities will have the opportunity to participate in and benefit from the subproject as well as take on the responsibility to adhere to sustainable protected area management. Community support will be designed through a process culminating in a PA Management Plan (PAMP), a PLUP, a CCAP, and a CCA.
- Already, most of the areas traditionally available to communities have been depleted or large mammals and other species through hunting by communities for livelihoods of commercial use. Allowing people to continue using all indigenous land and land resources in the entire PA, even if assistance is provided to them to improve efficiencies, is not necessarily a right solution for such people in the long run since, in the absence of some restrictions, the current trend of natural resources depletion will continue and people will even further lose livelihood. A reasonable proportion of Total Protection Zones (TPZ) (like no-take zones in rivers) is proven tools to regenerate wild population which can then be used again sustainably.

48. This CEF includes key provisions and procedures to (a) describe the process of active community engagement for environmentally and socially sustainable management of protected areas and conservation of wildlife, and (b) address the World Bank safeguard policies on Indigenous Peoples (OP/BP 4.10) and Involuntary Resettlement (OP/BP 4.12) in a single framework. It integrates three important safeguard features: (a) an Ethnic Groups Planning Framework (EGPF) which is equivalent to the Indigenous Peoples Planning Framework (IPPF) in the WB context to ensure that subprojects are developed with support and input from participating communities; (b) a Process Framework (PF) to organize and manage subproject-related changes in access to or the use of natural resources and access to new opportunities; and (c) a Resettlement Policy Framework (RPF) to manage any (unlikely) instances of involuntary land acquisition for subproject purposes.

49. The CEF sets out provisions and procedures so negative impact on livelihoods due to land acquisition or restrictions in access to resources will be avoided, or minimized and fully mitigated by means of sustainable solutions as set out in participatory PLUPs, CAPs, and CCAs. In summary, the CEF sets a voluntary and collaborative process in which participating communities play a key role in the design, implementation and monitoring of interventions to raise participants' income and well-being while enhancing the sustainability of protected area and/or protection forest, preservation of wildlife, and other conservation activities. The PLUPs, CAPs and CCAs will clearly assess and provide measures to enhance positive project benefits and avoid or mitigate potential adverse effects. To improve the effectiveness of the implementation and benefits to local communities over both the short-term and long-term, the CAPs will attempt to seek for environmentally and socially sustainable management of protected areas and conservation of wildlife. The CAP will provide guidance for mobilizing additional funding.

50. In areas with ethnic groups, the CAP will serve as an Ethnic Group Development Plan (EGDP) (or IPP in WB context as required by OP/BP 4.10). Section V details the steps required to ensure that CAPs will address all safeguard policy requirements to serve as an EGDP where project participants are characterized as ethnic groups. In cases where project activities may result in restrictions of access to natural resources, the CAP will also serve as a local action plan to address any changes or restrictions in resource access. Section V also provides step-by-step processes and procedures to ensure that a CAP meets all policy requirements under OP/BP 4.12 with regard to restriction of access to natural resources. The PLUPs, CAPs, and CCAs must be agreed by the communities at large and endorsed by village authorities, and in some cases the District Authorities.

51. A Resettlement Policy Framework (RPF) is attached to this CEF as Annex 1. Some project activities may require minor land acquisition of private land. In this case materializes, an abbreviated Resettlement Action Plan (RAP) will be developed using measures provided in the RPF. Designs will also be adjusted to avoid such impacts.



52. Subprojects will give sufficient attention to encourage women to play an active role in the consultation process. During implementation, the women will be: (a) consulted and their concerns addressed; (b) consulted and trained on chosen livelihoods that would restore their income, in case existing sources of livelihood were adversely affected, and improve their living standards; (c) given the opportunity to participate in community group meetings, focus group discussions, planning and implementation; and (d) represented equally in the Grievance and Redressal Committees (GRCs).

## **5.6 Grievance Redress Mechanism**

53. Grievances related to environmental issues that result from project activities will be resolved through a four-step grievance mechanism. Detailed guidelines for the grievance mechanism are included in the CEF and will be communicated to the community during the planning process for all project activities. The grievance mechanism is based on key principles that will protect the rights and interest of project participants; ensure that their concerns are addressed in a prompt and timely manner, and that entitlements are provided in accordance with GoL and Bank environmental safeguard policies. Grievances will be addressed at the village, district, province, and national level. A complainant also retains the right to bypass this procedure and can address a grievance directly to the NPSC or the National Assembly as provided for by law in Lao PDR. All grievances at each level with details, discussions, actions, and outcomes will be recorded in a grievance logbook that will be maintained by the subproject owner and EPFO.

54. LENS helped developing grievance procedures in two provinces as well as ethnic group consultation guidelines. Grievances that result from project activities will be resolved through a grievance mechanism provided in the CEF and inspired from the procedures developed under LENS. The grievance mechanism will be based on key principles that will protect the rights and interests of project participants, ensure that their concerns and grievances are addressed in a prompt and timely manner, and that entitlements or livelihood support is provided in accordance with GoL and Bank safeguard policies.

55. The grievance mechanism will be in line with existing policies, strategies, and regulations on redressing village grievances as defined by GoL and will be institutionalized in each village by a selected group of people, involving ethnic minorities, women, and representatives of other vulnerable groups in the village. In Bolikhamxay and Khammouane Province communities can also take advantage of the existing grievance mechanism developed under the LENS project.

56. The Project grievance redress mechanism will consist of four steps with guidelines outlined for each step. Grievances will be addressed at the village, district, province, and national level. A complainant also retains the right to bypass this procedure and can address a grievance directly to the EPF Office or the National Assembly, as provided for by law in Lao PDR. At each level grievance details, discussions, and outcomes will be recorded in a grievance logbook.

## VI. ESMF IMPLEMENTATION ARRANGEMENT

### 6.1 ESMF Responsible Entities

57. Table 6.1 presents responsible agencies and key functions for ESMF implementation.

Table 6.1: Key responsibilities for ESMF implementation

Subproject cycle	EPFO	SDA
Screening	<p>Advise applicants and other stakeholders of environmental and social safeguard procedures.</p> <p>Review the concept note/idea and screen for potential safeguard issues, and advise applicants regarding the nature and content of the safeguard documents and measures to be prepared</p>	<p>Assess any potential safeguard issues early in the preparation process, including screening for the presence of indigenous peoples.</p> <p>Describe potential safeguard issues in the full proposal.</p>
Preparation	<p>Advise applicants on safeguard issues, as needed</p>	<p>Undertake safeguard per the required processes, such as consultations with local communities, environmental review, and social assessment.</p> <p>Design safeguard measures and prepare documents, such as an ESMP, EGDP, PF, etc. as agreed with EPFO. If applicable, disclose draft safeguard documents with the sub-project proposal to affected communities prior to final review of proposal by the EPFO.</p>
Review and approval	<p>Review sub-project proposal for safeguard impacts and social risks.</p> <p>Assess the adequacy and feasibility of the safeguard assessment and consultation process. If needed, request further steps.</p> <p>Assess the adequacy and feasibility of the safeguard measures and documents. If needed, request appropriate changes to these and reassess prior to final approval.</p> <p>If indigenous peoples are affected, ascertain that they have provided their free, prior and informed consent to sub-project activities affecting them. Sub-projects affecting indigenous peoples cannot be approved without such agreement Assess the capacity of the applicant to implement safeguard</p>	<p>Submit sub-project proposal with safeguard measures and documents (e.g. social assessment, environmental review, EGDP, PF), if required If requested by the EPFO take additional steps to meet ESMF and safeguard policy provisions. Re-submit proposal with revised safeguard measures and documents, as needed. All national and local legislation and regulations will be complied with.</p>

	measures.  If applicable, publicly disclose safeguard related information on the web after sub-project approval	
Implementation	Supervise and review safeguard documents and issues during subproject implementation. If needed, request changes to safeguard measures and/or implementation of these ...  Review and approve Plan of Actions that are required to be prepared during implementation of sub-projects restricting access to natural resources (as will be described in the PF for sub-projects with potential impacts from such restrictions).	Disclose final safeguard documents, if any, to affected communities.  Monitor and document the implementation of safeguard measures. When indigenous peoples are affected, include them in participatory monitoring and evaluation exercises.  Prepare Plan of Actions for sub-projects restricting access to natural resources (as per the PF prepared). Monitor and document implementation of these plans
Evaluation	Ensure inclusion and review of environmental and social safeguard issues and outcomes in mid-term and final sub-project evaluation and reporting, including concerning any lessons learned on the sustainability of each subproject.	Evaluate the implementation and outcomes of safeguard measures.  When indigenous peoples are affected, include them in participatory evaluation exercises

## 6.2ESMF Monitoring and Reporting

58. Main objectives of the ESMF monitoring and reporting is to ensure that the ESMF including annexes and the ESMP and the CEF (as needed) are implemented effectively and that the ESMF and the CEF process are carried out as per guidelines and appropriate capacity building of communities and government agencies is undertaken. Monitoring and reporting will be made both at project level and subproject level. This section outlines steps for monitoring of ESMF and ESMP while those for CEF are provided in CEF document. To ensure that safeguard activities will be carried out by qualified staff both at EPFO, one safeguard officer is being mobilized to be responsible for ensuring ESMF and safeguard compliance. EPFO will also mobilize one project technical advisor (PTA) and short term qualified consultants (firm or individual) to provide guidance and/or assist in the preparation of safeguard documents and as needed. For Component 2 subprojects, the SDA will also hire a short-term safeguard specialist to assist in the implementation.

### *At project level:*

59. EPFO will be responsible for ensuring effective management of safeguard and monitor its implementation progress and compliance. EPFO will recruit a full time technical officer/coordinator to be responsible for monitoring under supervision of an international Technical Advisor.

### *Subproject monitoring:*

60. Implementation of the ESMF and ESMP will be regularly supervised and monitored by the responsible SDA and Kumban teams while the consultants hired by the subproject and embedded at the village level will prepare a quarterly progress report and describe their observations in project performance including on issues related to safeguards, which will be kept in the project file for

possible review by the World Bank. The EPFO will supervise and monitor the process at least one time per year and include the results in the Project annual reports to be furnished to the World Bank. The subproject owner will monitor core project indicators proposed by the subproject monitoring indicators. In consultation with local government and project beneficiaries, they will establish other practical monitoring indicators in line with the project objectives.

61. Table 6.2 presents the ESMF monitoring requirements covering at least the following aspects of the project and subprojects:

- Budget and time frame of implementation
- Delivery of project activities (project inputs)
- Project achievements in developing alternative natural resource use and livelihoods (project outputs and outcome)
- Consultation, Grievance and Special Issues
- Monitoring of benefits from project activities.

Table 6.2: ESMF monitoring requirements

Objectives	Actions	Responsibility	Schedule
Ensure compliance with ESMF and ESMPs	Monitor the ESMPs preparation and implementation of subproject	EPFO	Every six months
Maintain an up-to-date ESMF	Review and update ESMF, and submit revisions to the World Bank for approval	EPFO	Annual
Communication structures between Project and GoL in place	Develop procedures and schedule for coordination and reporting	SDA	Prior to implementation
Meet reporting requirements	Prepare quarterly reports	SDA	Bi-annual
	Prepare ad-hoc reports	SDA	As required

### 6.3 ESMF Consultation and Information Disclosure

#### *Consultation*

62. The ESMF (and CEF) has been consulted with key stakeholders including representatives from local communities and ethnic peoples in the six priority project provinces (BLKX, KM, SVK, VTP, LPB, and XSB) during 10-24 July 2014 and the results have been considered during the preparation of the final draft. Information provided and discussed included project objective, description, and component, potential impacts (positive and negative) of the project, draft ESMF, and draft CEF including draft documents were translated and distributed. Results suggested that most of the related agencies and people in the project provinces fully support the LENS2 project and considered that the proposed ESMF and CEF processes are appropriate and can be applied on the ground. Discussion with the representative of ethnic peoples and women group also confirmed their full supports. It has been agreed that during the preparation of specific subproject to be proposed by the province and the preparation of the environmental management plan or other plans as required by the CEF, additional consultation will be carried out by the province (as a subproject delivering agency or SDA) in close consultation with the local authorities and people likely to benefit and/or affected by the subproject. The subproject will clearly define details on the CEF process in line with the subproject activities including identification of the responsible entity, budget, and the grievance procedure. The subproject proposal, the ESMP, and the CEF will be disclosed in Lao language at the

provincial and district offices. A safeguard consultation report was prepared including background information of the project provinces and minutes of the safeguard consultation in the six LENS2 provinces. The report was submitted to WB for information in early October 2014.

63. The ESMF and CEF consultation was also made in the EPF stakeholder workshop conducted on 20 August 2014.

### ***Safeguard disclosure***

64. The final draft ESMF, the final draft CEF, and the consultation report have been translated into Lao language and disclosed both in Lao and English in the EPFO website. These reports have been sent to the eight project provinces in December 2014.

## **6.4 Safeguard Training and Budget**

65. To facilitate effective understanding of provincial staff regarding the ESMF and the CEF process EPFO will establish a safeguard training program for ESMF and CEF process by setting up a training team comprising of experience staff (from BLKX and KM) to prepare documents and training materials as well as undertaking training of the provincial and district staff responsible for development of proposal and implementation of the CBI subprojects. A budget of \$50,000 per year will be allocated for safeguard training including training on the ESMP/CEF process for five years. This budget (\$250,000) will be provided through Component 3. Training will include, but not limited to, (a) safeguard screening and identification of issues and mitigation plan and (b) ESMP/CEF planning and monitoring process. In addition technical and/or academic training courses related to biodiversity conservation, environmental quality management, and/or environment and social safeguards will be provided through various NUoL subprojects related to environment, social, forestry and wildlife. To address short-term/specific on-the-job training will be provided through the subprojects as need to ensure that the agencies will have short-term capacity to carry out their responsibility as soon as possible.

## Appendix 1: Sector Background

### *Country Challenges*

1. Lao PDR is one of the least developed countries in Southeast Asia and lies in the Indo-Burma Biodiversity hotspot. The country has considerable natural resources in forests, water resources, and minerals and these are significant for cultural development, environment protection, and economic development. Its forests cover about 40% of the country, the highest percentage in Southeast Asia, but the total area of forest has declined dramatically from 70% of the land area of 26.5 million hectares (ha) in 1940, to 49% in 1982, and to only 40% or about 9.5 million ha in 2010. Data on changes in forest cover suggest that during the 1990s the annual loss of forest cover was around 1.4% annually, giving an average annual loss of forest cover of about 134,000 ha.

2. At present, the government has designated 20% of the country's land area as protected (including 21 national biodiversity conservation areas (NBCA), plus a number of provincial and district protected areas), and produced the Biodiversity Strategy to 2020. Around half of the NBCAs share a border with Viet Nam, Cambodia, Thailand or China, and a number of these form (or have the potential to be) trans-boundary protected areas. In 2010, there is a decree on protection forest area (PFA) defining the principles, the procedures, and the measures on the management of conservation and protection forests and the sustainable use of the protection forests/lands which are located in the areas of water resources, watershed areas, wetland forest and river bank's forests, road side forests, municipality or outskirts of city, sacred forests of villages and an area of about 8,200,000 ha has been assigned as the national protection forest area (NPFA).

3. One of the key challenge is rapid development in the country especially hydropower and mining. It is GoL policy to ensure achievement of 8% annual GDP growth rate by implementing a number of policy, legal, and institutional measures to promote hydropower development to become “the battery of Asia” as well as improving effectiveness of natural resources and environmental management (NREM). Maps 1 and 2 present locations of the three types of forests area as defined in the forestry law (NBCA, NPFA, and production forest) and locations of the river basins while Maps 3 and 4 shows locations of existing and proposed hydropower projects in Mekong River basin and location of mining and hydropower in Lao PDR.

### *Sector Issues (NREM)*

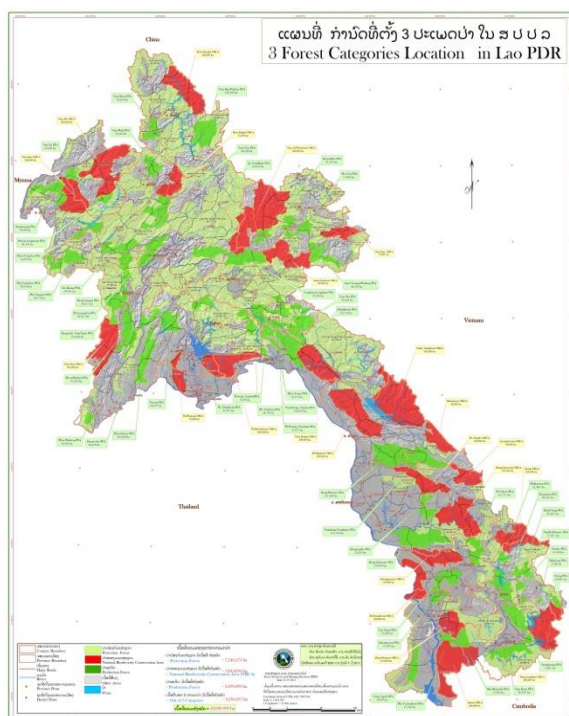
#### *(a) Degradation of forest cover, natural resources, and development challenges*

4. Similar to other developing countries, forest covers, critical natural habitats, and biodiversity are under threat given the speed of development and an increasing utilization of natural resources. A recent report<sup>25</sup> suggested that the total area of forest has declined dramatically from 70% of the land area of 26.5 million hectares (ha) in 1940, to 49% in 1982, and to only 40% or about 9.5 million ha in 2010. Data on changes in forest cover suggest that during the 1990s the annual loss of forest cover was around 1.4% annually, giving an average annual loss of forest cover of about 134,000 ha. Localized risks related to utilizing natural resources are numerous, substantially elevated in number and severity without adequate government oversight. Future local risks, many already manifested in Lao PDR, include improper resettlement induced by public and private sector development projects, negative impacts on the community livelihoods, and, negative environmental impacts through worsening water quality, reduced fish migration, reduced biodiversity and pollution. Associated with mining and hydropower concessions, salvage logging in concession areas often occur without appropriate mitigation and management plans and occasionally without adherence to existing rules and regulations. Both hydropower and mining developments can have serious environmental implications which may undermine their economic return and require reversal or clean-up costs.

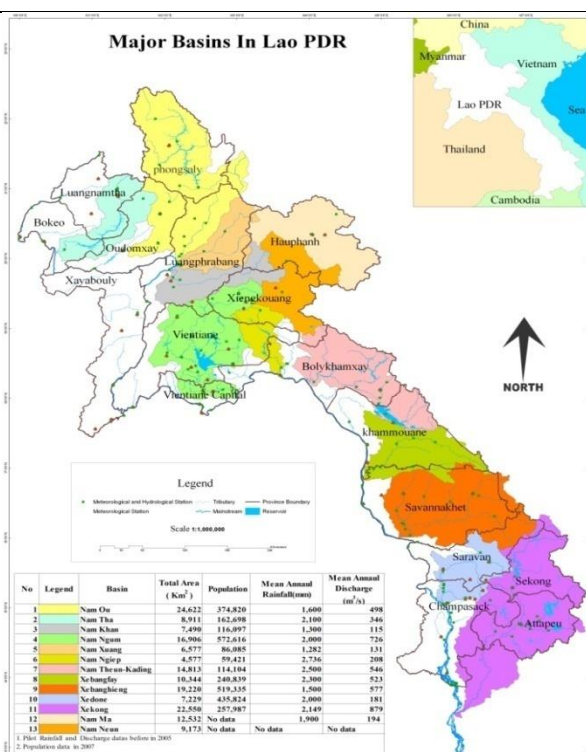
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<sup>25</sup> Paw ESMF

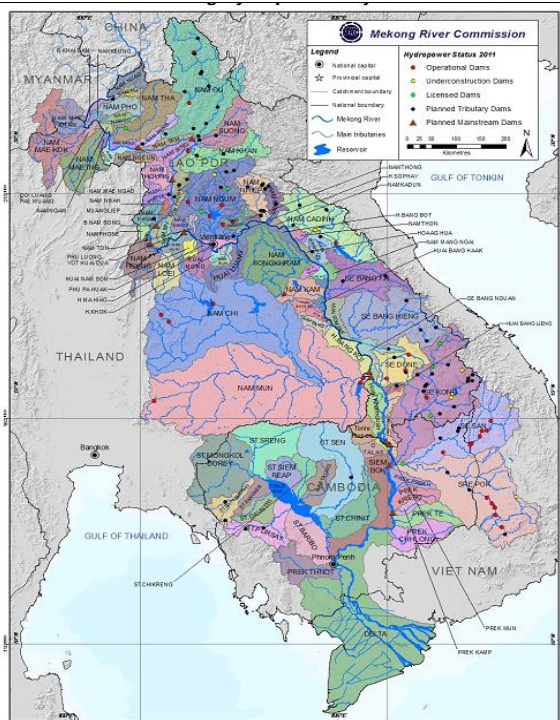
Map 1: Locations of 3 forest types as defined by the forestry law



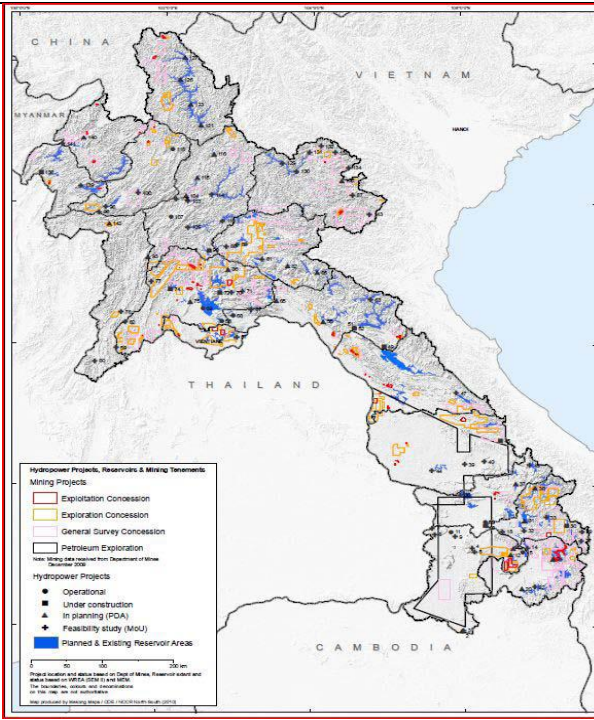
Map 2: River Basins in Lao PDR



Map 3: Locations of hydropower projects in Mekong River Basin



Map 4: Locations of hydropower projects and mining areas in Lao PDR





*(b) New agencies with limited human and financial resources*

5. To address the need for sustainable development and rapid development in the country GoL went through a series of legal and institutional reforms during the past ten years. In 2006, the Ministry of Industry and Handicraft was divided into the Ministry of Industry and Commerce (MIOC) and the Ministry of Energy and Mines (MEM) while the Water Resources and Environmental Administration (WREA) was created in 2007-2009 including the establishment of the Department of Environment and Environmental Impact Assessment (DESIA). In mid 2011-2012, MoNRE has been established by combining WREA agencies with the units responsible for land, conservation forest, and minerals while MEM and MAF agencies are also reorganized both at national and provincial levels. Laws, regulations, and guidelines have been developed and updated in line with the new organization and responsibility. This reflects that most agencies responsible for NREM and hydropower and mining need to establish/update/revise a number of rules, regulations necessary to facilitate effective management of their own agencies as well as to manage natural resources and environmental quality. Most agencies are new and lack qualified staff, operation budget, and experience. Implementation of GoL policy on “Sam Sang” provides a clear policy guidance regarding responsibility between central, provincial, and local agencies.

6. With assistance from international agencies, several management tools such as the Standard Environment and Social Obligations (SESO) [to be included as an annex to the Concession Agreement (CA) of hydropower projects] and the application of the Environmental Compliance Certificate (ECC). Efforts have also been made to develop/update strategies and policies as well as to build capacity of key agencies to (a) implement the EIA/IEE processes including the application and monitoring of SESO (b) the natural resources and environmental strategy (NRES) for 2030, (c) the planning and management process and capacity building on integrated water resources management (IWRM) in a river basin, and (d) to build NREM capacity at provincial level. However, given limited number of qualified staff and budget, more efforts will be necessary to translate policy and regulations facilitate effective management of the EIA and IEE process including compliance monitoring on the ground remain a big challenge. There is widespread concern that private companies are not currently complying with the ECC and/or SESO, taking advantage of its complexity and the lack of technical skills and available staff of Government regulators.

*(c) Funding mechanism/sources:*

7. MoNRE receives only a modest allocation from the national budget<sup>26</sup>. Additional financing for environmental management originates from three funding sources/mechanisms. First, the Forest Resources Development Fund (FRDF) established under MAF receives a portion of the budget from forest logging quota. The FRDF finances the management of production, protection and conservation forests through a normal budget allocation process and limited fund is available given GoL control of logging. The second funding source is from bilateral donors (Sweden, Finland, Germany, etc.) and other international agencies (such as WB, ADB, UNDP, etc.) however these funds are short-term and ad hoc with specific objectives that have been designed to fit the needs/policy direction of donors. The third funding source is EPF which provide funding through a subproject mechanism since 2006 however funding available from EPF is limited due to inadequate contribution of revenue from various sources. Among these 3 funding mechanisms EPF appears to be more flexible in reaching out all key agencies, provinces, local community, and other stakeholders, however, effective management and sustainability of EPF remain a challenge. EPF manages an endowment provided by the Asian Development Bank (ADB), grants from voluntary contributions from small mining companies and 1 hydropower company (THB) as suggested by GoL and/or laws (Mining and Electricity law). The

<sup>26</sup> Altogether development partners provide approximately \$400 million to the natural resources and environment sectors, with financing focused on technical assistance at the national level. Among others the ADB, AusAID, the European Union (EU), United National Development Program (UNDP), Japan, Finland, Germany, the United States Agency for International Development (USAID), and the World Bank Group (the Bank and IFC) are supporting activities to strengthen natural resources management and the environment. This support is being provided mainly to MoNRE, MAF and the Ministry of Energy and Mines (MEM).



EPF supports environment and social protection through a subproject mechanism dispatched through five windows<sup>27</sup>. Although these three funds operate actively, the financial resources available for provincial and district level environmental and social management remains insufficient to fulfill mandates.

(d) *Sector Coordination:*

8. Effective coordination and cooperation among agencies remain a challenge especially when human and financial resources are limited for each agency. There are also strong desires for coordination among donors, with some current coordination already present. With the formation of MoNRE in 2011, a new Natural Resource and Environment Sector Working Group was established. It is chaired by the Minister and co-chaired by Germany and the Bank. Further subsector coordination is done through five Subsector Working Groups (e.g. forest resources, water resources). However, despite these coordination efforts much work remains in coordinating donor investments in a programmatic and synergistic way. Box A1.1 highlights projects that provide technical assistance and capacity building related to natural resources and environment. Efforts will be made to ensure synergy and complimentary of the activities as much as possible.

**Box A1.1: Other related projects**

- The *IFC Environmental and Social Standards of the Hydropower Sector* (ESS-H) project supports part of DWR, DESIA, and DEPP in improving policies and regulations for the hydropower sector and partners with local stakeholders to better anticipate, evaluate, and manage cumulative impacts of hydropower development in basins with more than one hydropower project.
- The *Technical Assistance for Capacity Building in the Hydropower and Mining Sectors* (HMTA) project is a joint Bank-AusAID project (\$8M IDA; \$2.5M AusAID) whose PDO is increasing human capacity and improve the performance of Government oversight institutions for the hydropower and mining projects. An additional financing (about \$17.8 million) is being prepared and expected to be implemented during 2014-2019.
- The *Mekong-Integrated Water Resources Management* (M-IWRM) project is a regional project (\$28M IDA), implemented in Laos, Cambodia and Vietnam. The PDO is to establish key examples of integrated water resource management practices in the Lower Mekong Basin (LMB) at the regional, national, and sub-national levels, thus contributing to more sustainable river basin development in the Lower Mekong. For Lao DPR, part of the budget will be used through DWR to support activities in Lao PDR covering support modelling and water quality laboratory (NREI), hydromet (DMH), flood management in lower Xebangfai and Xebanghien (DoI/MAF), and community fisheries in lower Sekong and Champasak (DoF/MAF).
- The *Scaling-up Participatory Forest Management Project* (SUPFMP) is the third phase of the Bank support to production forest management (\$19M IDA; \$13M FIP). The PDO is to execute REDD+ activities through participatory sustainable forest management in priority areas and to pilot forest landscape management in four provinces.
- The *Protected Area and Wildlife Project* (PAWP) is part of a regional conservation and wildlife trade initiative (\$17M IDA; \$7.4M GEF). The PDO is to strengthen participatory and transfrontier management of national protected areas and improve law enforcement against illegal wildlife trade.
- The *Lao PDR Environment and Social Project* (LENS) (\$7M IDA) closes on June 30, 2013. The PDO is to help the client strengthen the management of environmental and social issues associated with the sustainable use of natural resources in Lao PDR.
- The *Environmental Management Support Project* (EMSP) (About \$40? million from Government of Finland). This is a follow-up project from Sweden technical assistance which provided technical support to environmental and natural resources management sector (SEM-I and SEM-II) during 2003-2010. The project assists mainly key agencies of MoNRE (such as DEQP, DPC, and DESIA) and provinces (PoNRE) and the activities will be completed in mid 2015.

<sup>27</sup> The 5 windows are Policy Implementation and Capacity Enhancement (PICE), Community and Biodiversity Investment (CBI), Water Resources Management (WMR), Land Management, and Pollution Control.

## Appendix 2: PAW Subprojects and Background on NE-PL and NT-NPA

1. This appendix presents background for PAW (A2.1), a list of subprojects (A2.2), background on NE-PL (A2.3), and background on NT-NPA (A2.4) which have been presented in the ESMF approved by WB under PAW project in April 2014.

### A2.1 Background for PAW

2. The PAW Project will achieve its goals through a sub-project mechanism by building capacities and developing the institutions responsible for national conservation area (NPA) management and wildlife protection at the national level (DFRM and DOFI), while also providing targeted support to NPAs at the site level. Already two NPAs are selected: the Nakai Nam Theun (NNT) and Nam EtPhouLouey (NEPL) NPAs (see Sections A2.3 and A2.4 for a detailed description of the biophysical feature of these NPAs). Others may be added during the project implementation if such Sub-projects are proposed. Support will also be provided to key provincial stakeholders engaged in wildlife and NPA management in 5 provinces: Xiengkouang, Luang Prabang, Houaphan, Bolikhamxay and Khammouane.

3. The project will focus on *in-situ* conservation of wildlife and habitat at select highly bio-diverse and at threat NPAs. Further, at the national and regional level the project will create harmonized wildlife/PA related enforcement standards, develop good practice applications, and share successful schemes towards protected area management and reduction of illegal wildlife trade. The project would build on the ongoing bilateral initiatives between Lao PDR and Vietnam to promote cooperation on controlling illegal forest products and wildlife trade as well as strengthen Lao PDR capacity to enhance its collaboration with global efforts with international organizations involved in the fight against illegal wildlife trade.

4. The proposed Project aims to contribute to global, regional, national, and local public goods, as well as direct benefits to Government agencies and village communities. Regional and global benefits would also be derived from the national public benefits already described. Furthermore, with more effective trans-boundary protected area management in NNT and NE-PL, Vietnam's wildlife and protected areas would also be beneficiaries. With greater regional wildlife law enforcement, convictions and arrests, regional security would be improved by removing criminal networks (also involved in narcotics and arms trafficking). The project provides some exclusively global environmental benefits, such as in preserving unique biological resources and reduced carbon emissions through avoided deforestation.

5. Direct institutional beneficiaries include a number of Government agencies and their staff. These would include MoNRE, especially DFRM; MAF, especially DoFI and PoFI. The WMPA, NNT NPA and the Management Unit, NEPL NPA would be key beneficiaries as Sub-project Delivery Agencies (SDA). In addition District Staff, Department of Justice, Customs Department, and district and provincial law enforcement agencies would benefit.

6. The proposed NNT NPA sub-project may support about 70 villages, possibly more, including peripheral and enclave villages. The proposed NEPL NPA sub-project may support about 50 villages, possibly more, in and around NEPL NPA to be beneficiaries of project activities. The total approximate number of beneficiaries would be between 80,000 and 100,000. The final list of villages will be identified during implementation through a mixture of technical, environmental sustainable and consultation process. Precise data on the villages, location, population, gender, ethnicity, natural resource dependence, forest and habitat quality, and, wildlife resources and poaching, will be accessed early during the project preparation process. Funds will be provided for a diversity of conservation and livelihood activities.

## A2.2 List of Paw Subprojects

### 7. Component 1: National institution development and capacity building

- Sub-project 1.1 - Capacity building for national biodiversity planning. US\$0.2 million. The Department of Planning and Cooperation (DPC) of MONRE proposes to implement this sub-project. It would aim to strengthen the capacity of the DPC. The sub-project proposes to finance TA, workshops and equipment for DPC. Under this sub-project, DPC would (a) coordinate the Forest Subsector Working Group, (b) monitor DFRM's implementation of national policies and strategies including progress toward the biodiversity of MDG indicators, and (c) develop arguments in favor of greater mobilization of GoL budget for PAs, etc.
- Sub-project 1.2 - Capacity and institution building for PA management and wildlife conservation. US\$1.5 million. This sub-project is proposed by DFRM of MONRE. It aims to strengthen the policy and institutional framework as well as DFRM capacity to protect and manage the country national PAs system as well as implement its MoU with Vietnam on the joint management of borderland PAs. The sub-project proposes to finance TA, workshops and equipment for DFRM. Under this sub-project, DFRM would (a) establish a database of "investment projects" that impact PA and a system to monitor them, (b) investigate alternative institutional options to improve PA management nation-wide, (c) prepare a country PA master plan, (d) facilitate the twinning arrangement of NPAs in India or Nepal, (e) activate the MoUs with Vietnam on transfrontier NPAs and possibly prepare guidelines for Laos cooperation with Vietnam PAs authorities, and (f) prepare PA Guidelines for community engagement in and around PAs, infrastructures in PAs, bio-monitoring and mapping protocols and standards, (f) support some elements of the Laos tiger plan such as carrying investigation to map the last tiger locations in Laos, preparing action plan if tigers are detected and need protection, fund raising, preparing and implementing and information campaign, promoting knowledge exchange with other experience in the region, etc.
- Sub-project 1.3 - Capacity building for addressing the regional illegal wildlife trade. US\$1.5 million. DOFI of MAF proposes this sub-project. It aims to strengthen DOFI capacity as well as the capacity of partner institutions members of Lao WEN, to monitor and enforce national rules and regulations that assist regional cooperation on addressing the illegal wildlife trade. The sub-project proposes to finance TA, workshop, and equipment for DOFI. Under this component DOFI would (a) develop and implement protocols for responding to illegal wildlife trade, (b) train and equip the Lao WEN for operation, (c) activate the relation between ASEAN-WEN and Lao-WEN as well as other international agencies active in the control of wildlife trafficking, and (d) in collaboration with NUOL, train DOFI, POFI staff, and partners in investigations, prosecutions, animal handling, media relations, airport-based monitoring and enforcement, CITES, and customs procedures.
- Sub-project 1.4. Human resources development for protected area management. US\$2.3 million. This sub-project is proposed by the Forest Faculty of NUOL. A set of training modules for existing PA staff has been developed and tested. The sub-project would finance TA, scholarships, workshops and equipment to help NUOL (a) scale up the implementation of these modules so they are administered to PA staff in the country, (b) fund master scholarships in PA or wildlife sciences, (c) establish a relation with the India Wildlife Institute, (d) develop a bachelor curriculum in PA and wildlife science, (e) administer a scholarship program for "conservation leaders" in universities in South or Southeast Asia, and (f) mobilize visiting professors from Vietnam and other countries in the region.
- Sub-project 1.5. Constituency building of high level officials. US\$0.3 million. This sub-project is proposed by the Government Office. The Government Office would (a) lead seminars and workshops at the national and local levels to build the awareness of participants

on Lao PDR decrees, international treaty commitments, strategies and action plans relevant to conservation forests and wildlife trade, (b) publish and promote information related to conservation forests and wildlife management in a magazine entitled “Administrators” which is distributed to Party members (i.e. ministers, governors, district governors) and posted in English and Lao on the Lao PDR Government Office website, and (c) national and international study tours for government decision-makers, promotional writing and singing competitions, educational radio and television programs, and provisions for supplies and equipment.

- Sub-project 1.6. Constituency building of public administration. US\$0.3 million. This sub-project is proposed by the Kaysone Academy. Kaysone Academy trains all high level GoL officials in the dealing of leadership, politics and administration. Kaysone Academy would (a) review and improve its curriculum to include coverage of biodiversity, protected areas and wildlife, (b) organize and lead study tours for high government official to PA in Laos and elsewhere, and (c) implement and monitor the improved curriculum including identifying future champions for the conservation sector in Lao PDR.

## 8. **Component 2: Management of wildlife and protected areas**

- Sub-project 2.1. Management of the Nakai Nam Theun NPA. US\$2.80 million. This sub-project is proposed by the WMPA. The sub-project would finance TA, workshops, training, civil works, community grants and equipment in order to support (a) PA management such as design of management plan, patrolling, biodiversity monitoring, macro zoning, awareness raising, (b) implementation of the CEF in villages and livelihood development linked to land use planning and compliance to conservation agreements, (c) implementation of the NNT ESMP and (d) implementation of the MoU with Vietnam Vu Quang National Park authority for cross-border patrolling and establishment of a twinning arrangement with another park in the region with more experience and capacity.
- Sub-project 2.2. Management of the Nam EtPhouLouey NPA. US\$2.80 million. This sub-project is proposed by the NEPL MU. The sub-project would finance TA, workshops, training, civil works, community grants and equipment in order to support (a) PA management such as design of management plan, patrolling, biodiversity monitoring, macro zoning, awareness raising, (b) implementation of the CEF in village and livelihood development linked to land use planning and compliance to conservation agreements, and (c) establishment of an MoU with Vietnam forest authorities for cross-border patrolling and establishment of a twinning arrangement with another park in the region with more experience and capacity.
- Sub-project 2.3. Coordination of NPA management in Bolikhamxay Province. US\$0.20 million. This sub-project is proposed by PFRM Bolikhamxay. It would help PFRM, and DONRE in Khamkeut District receive training, acquire equipment and logistic support to provide assistance to WMPA for management of the Nakai Nam Theun NPA.
- Sub-project 2.4. Coordination of NPA management in Khammouane Provinces. US\$ 0.20 million. This sub-project is proposed by PFRM Khammouane. It would help PFRM, and DONRE in Nakai, Nhommalath and Boulapha Districts receive training, acquire equipment and logistic support to provide assistance to WMPA for management of the Nakai Nam Theun NPA.
- Sub-project 2.5. Support to NPA management in Houaphan Province. US\$0.20 million. This sub-project is proposed by PFRM Houaphan. It would help PFRM, and DONRE in the Huameuang, Viengthong and Xamneua Districts receive training, acquire equipment and

logistic support to provide assistance to the NPA Management Unit for management of the NEPL NPA.

- Sub-project 2.6. Support to NPA management in LuangPrabang Province. US\$0.20 million. This sub-project is proposed by PFRM Houaphan. It would help PFRM, and DONRE in the Phonethong, Viengkham and Phonexay Districts receive training, acquire equipment and logistic support to provide assistance to the NPA MU for management of the NEPL NPA.
- Sub-project 2.7. Support to NPA management in Xiengkhouang Province. US\$0.20 million. This sub-project is proposed by PFRM Xiengkhouang. It would help PFRM, and DONRE in the Phoukoud District receive training, acquire equipment and logistic support to provide assistance to the NPA MU for management of the NEPL NPA.
- Sub-project 2.8. Support to wildlife law enforcement in Bolikhamxay Province. US\$0.4 million. This sub-project is proposed by POFI Bolikhamxay. This sub-project would help POFI, and some of its partner institutions such as the provincial environment police, the judiciary and the customs department receive training, acquire equipment and logistic support to scale up wildlife trade law enforcement in their province and support the Khamkeut DAFO team in its effort to protect wildlife and prevent timber extraction in Nakai Nam Theun NPA. Under this component POFI would develop a provincial law enforcement strategy, equip and upgrade the POFI office, increase operations for response patrols, routine patrols and road blocks.
- Sub-project 2.9. Support to wildlife law enforcement in Khammouane Provinces. US\$0.4 million. This sub-project is proposed by POFI Khammouane. It would help POFI, and some of its partner institutions such as the provincial environment police, the judiciary and the customs department receive training, acquire equipment and logistic support to scale up wildlife trade law enforcement in their province and support the Nakai and Boulapha Districts DAFO teams in their effort to protect wildlife and prevent timber extraction in Nakai Nam Theun NPA. Under this component POFI would develop a provincial law enforcement strategy, equip and upgrade the POFI office, increase operations for response patrols, routine patrols, and road blocks.
- Sub-project 2.10. Support to wildlife law enforcement in Houaphan Province. US\$0.4 million. This sub-project is proposed by POFI Houaphan. It would help POFI, and some of its partner institutions such as the provincial environment police, the judiciary and the customs department receive training, acquire equipment and logistic support to scale up wildlife trade law enforcement in their province and support the Huameuang, Viengthong and Xamneua Districts DAFO teams in their effort to protect wildlife and prevent illegal mining expansion in NEPL NPA. Under this component POFI would equip and upgrade the POFI office, increase operations for response patrols, routine patrols, and road blocks.

## 9. **Component 3: Project administration**

- Component 3 will support the administration of the sub-project mechanism by EPF. Eligible expenditures include (a) small civil works to rehabilitate an office building for EPF, (b) equipment such as two vehicles and two motorcycles as well as office furniture and equipment, (c) training (e.g. procurement, financial management, safeguard, sub-project development and monitoring, team building, etc.) and workshops (e.g. annual planning or stakeholder consultation), (d) consultant services (e.g. an international technical advisor, national long and short term consultants in financial management, procurement, M&E, communication, etc.) and advisory services (e.g. database development, communication and fund raising strategies.) as well as (e) operating expenditures such as translation services, stationary, utilities, advertising, labor, travel, equipment operation and maintenance, etc.

### **A2.3 Background on Nam Et-PhouLouey (NE-PL) National Protected Area**

#### ***Current Biophysical Status:***

10. The project area consists of selected zones of the Nam Et-PhouLouey National Protected Area (NEPL NPA) that is operated under the authority of the Nam Et-PhouLouey Protected Area Management Unit with technical support from WCS. Map A7.1 provides the location and boundaries of the NEPL NPA. The NPA is located in north eastern Lao PDR covering an area of 595,000 ha of mountainous terrain and is representative of the Northern Indochina Subtropical Forests Eco-region. The NEPL NPA ranks high in the Lao PDR's national protected area system for contributing with the highest biological diversity of any protected area in this Northern Highlands region (Davidson 1998; Ling 1999), and is best known for harbouring the last known breeding wild tiger population remaining in Indochina (Walston et al., 2010).

11. The Northern boundary of the NPA borders Vietnam; the southern part covers part of Xiengkhuang Province; and the western side of the NPA shares a boundary with parts of LuangPhabang Province. Altitudes in the NPA range from 400-2257 metres above sea level with over 60% of the land area above 1000 metres, and 91% of the area along slopes being greater than 12%.

12. The NPA is located in the upland areas of the Nam Et river that is one of the biggest rivers on the North Eastern part and flows to the Nam Ma and Nam Neun rivers on the south eastern part, and further to the Nam Ka river in Vietnam. This river system has numerous smaller tributaries.

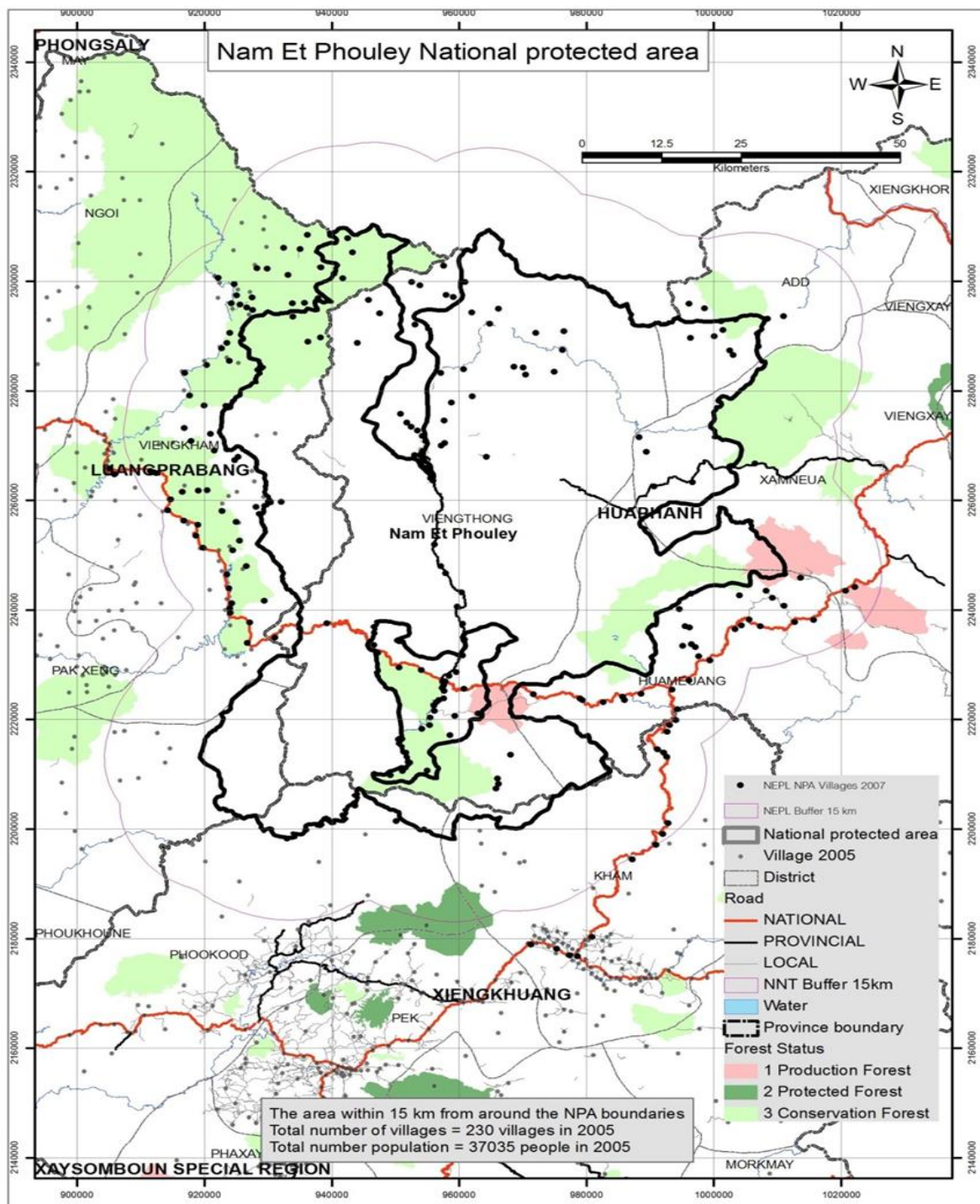
#### ***Biodiversity Values***

13. The original vegetation of the region where the NEPL NPA is located was primarily dry evergreen forest mixed with large areas of deciduous forest (Duckworth et al. 1999). Today, mature forest defined, as "areas with at least 20% canopy cover and a 30 metre canopy" are uncommon in the Northern Highlands. In many areas, prolonged shifting cultivation and fire have resulted in forests being replaced by large areas of Imperata grass, bamboo and other secondary vegetation. Amidst this landscape, 72% of the NEPL NPA is covered in mixed evergreen deciduous forest up to 1500 metres transitioning into evergreen forest from 1500 to 1800 metres, which is interspersed with beech forest and rhododendron species above 1800 metres (Davidson 1998). These forested areas are embedded in a mosaic of old shifting cultivation fallow and bamboo groves

#### ***Wildlife Resources***

14. NEPL is probably best known for its mammals and most notably for harbouring one of the most important tiger populations remaining in Indochina (Johnson et al. 2006; Dinerstein et al., 2006). In addition, the NPA also lies within the second most important core area in the world for supporting small carnivore taxa –mustelids and viverrids – of conservation concern (Johnson et al., 2009; Schreiber et al. 1989). WCS has conducted a series of mammal surveys in the NPA since 1998 (Davidson 1998, 1999; Guillen and Francis 1998; Vongkhamheng 2002) and also undertakes ongoing annual monitoring of tiger and prey populations (Johnson et al. 2006; WCS-Lao PDR unpublished data). Surveys during March 2003 - May 2004 (Johnson et al., 2006) confirmed the presence of a low-density population (<1 tiger/100 km) of tigers numbering 7–23 individuals in a 952–3548 km sampling area.

Map A2. 1: Nam etPhouLouey NPA



15. The NPA contains an outstanding diversity of carnivores that includes six cat species, dhole, two bear species, and 11 species of small carnivores, including civets, mustelids and mongoose. A small Asian elephant population persists along the Nam Et river. Guillen and Francis (1998) also described over 40 species of bats from the NPA, three of which were new records for Lao PDR. Nineteen species of mammals recorded from the NPA during camera trap surveys (Johnson et al. 2006; Johnson et al., 2009; WCS unpublished survey data) or during sign surveys (Johnson et al., 2008; WCS unpublished survey data) are listed as globally threatened or data deficient (IUCN 2009), as shown in [Table A2.1](#).

16. Much of the wildlife of the Northern Highlands is akin to that of the Himalayan Palaearctic region (MacKinnon and MacKinnon 1986, in Duckworth et al. 1999). Among the wildlife of Laos, relatively little is known about the reptile and amphibian diversity. A field survey coupled with interviews resulted in a preliminary list of 30 species that included six species of turtles, two species of pythons, several species of frogs, toads, lizards that included two species of monitor lizards, typical snakes, vipers, and an elapid snake (krait). Of the known herpetofauna in the NPA, it is notable that most of the turtles are listed as IUCN endangered (EN), vulnerable (VU) or data deficient (DD), including the Southeast Asian soft-shell turtle *Amydactilagina*(VU), the big-headed turtle *Platysternonmegacephalum*(EN), the four-eyed turtle *Sacaliaquadriocellata*(EN), and the tortoise *Manouriaimpressa*(VU) (IUCN 2009).

17. Preliminary surveys of the avifauna in the NPA were first undertaken in 1998 (Davidson 1998) and resulted in a list of 299 species. Of these, three species are listed as endangered or near threatened (NT), including rufous-necked hornbill *Acerosnipalensis* (VU), the beautiful nuthatch *Sitta Formosa* (VU) and Blyth's kingfisher (NT) (IUCN 2009). PhouLouey mountain is identified as especially important as it contains a distinctive montane bird community with ten species.

18. The core population of gibbons is located in the western part of the NPA while only one group has been sighted in the whole of the eastern part of the NPA. These records are sourced from ground patrols and no scientific surveys of gibbons have been conducted in the NPA. The gibbons prefer primary forests but can persist in degraded forests if not heavily hunted. If gibbon groups are located through surveys then efforts are made to augment canopy-crossing opportunities such as rope crossings.

Table A2. 1: Globally threatened or data deficient species recorded by camera trap or during sign surveys in the Nam Et-PhouLouey NPA between 2003 and 2008

Species	Scientific name	Camera trap surveys (2003-2007)	Sign surveys (2003-2008)	Status global <sup>(i)</sup> –
Stump-tailed macaque	<i>Macacaarctoides</i>	X	X	VU
Assamese macaque	<i>Macacaassamensis</i>	X		NT
Phayre's leaf monkey	<i>Tracypithecusphayrei</i>	X		EN
Northern white-cheeked gibbon	<i>Nomascusleucogenys</i>		X	CR
Dhole	<i>Cuon alpinus</i>	X		EN
Asiatic black bear	<i>Ursusthibetanus</i>	X		VU
Sun bear	<i>Helarctosmalayanus</i>	X		VU
Hog badger	<i>Arctonyxcollaris</i>	X		NT
Oriental small-clawed otter	<i>Aonyxcinerea</i>	X		VU
Large Indian civet	<i>Viverrazibetha</i>	X		NT
Owston's civet	<i>Chrotogaleowstoni</i>	X		VU
Asian golden cat	<i>Pardofelistemminckii</i>	X		NT
Marbled cat	<i>Pardofelismarmorata</i>	X		VU
Clouded leopard	<i>Neofelisnebulosa</i>	X		VU
Tiger	<i>Pantheratigris</i>	X	X	EN
Asian elephant	<i>Elephasmaximus</i>		X	EN
Gaur	<i>Bosgaurus</i>	X	X	VU
Small dark muntjac	<i>Muntiacusrooserveltorum/truongsonensis</i>	X		DD
Southwest China serow	<i>Capricornismilneedwardsii</i>	X	X	NT
Globally threatened-critically endangered (CR); Globally threatened-endangered (EN); Globally threatened-vulnerable (VU); Globally near threatened (NT); Data deficient (DD). (IUCN 2009). Source: Johnson et al., 2006; Johnson et al., 2008; Johnson et al., 2009, WCS Lao PDR unpublished survey data.				



## **A2.4 Background to Nam Theun 2 Watershed and NNT NPA**

19. The NNT NPA is located in the Nam Theun 2 watershed that has the Nam Theun 2 (NT2) hydroelectric project with an annual capacity of 1075 megawatts. The creation of the reservoir flooded an area of 450 square km and of this area approximately 130 square km was inside the original NNT NPA as designated by GoL in 1993. The boundary of the NPA was modified in 2000 to extend it by inclusion of two forested corridors linking it to the two national protected areas of PhouHinPoun NPA and Hin Nam Nor NPA. These three areas together are known as the NT2 Watershed and cover approximately 427,700 ha. The NT2 Watershed also includes special conservation areas comprising of stream alignments and valleys between mountains in the northern and southern source areas of the reservoir, and islands on the northeastern side of the corridor between the NNT NPA and the PhouHinPoun NPA. The NT2 Watershed is an offset for the NT2 hydroelectric project and continues to be monitored by the World Bank and international financial institutions. See Map A7.2.

20. The NT2 Watershed Management and Protection Authority (WMPA) are mandated to manage the NT2 Watershed and the NNT NPA. This mandate includes responsibility for coordinating and implementing the conservation, maintenance and enhancement of the NPAs and the watershed. The key objectives of the WMPA are to guarantee adequate volume of water with low sediment load and rehabilitation of forest areas in the NT2 Watershed; preserve and protect the natural biodiversity system particularly the conservation of habitat of rare, endangered or near extinct wildlife and aquatic life species; contribute towards and facilitate improvement of livelihoods of multiethnic communities; and strengthen capacity of the Authority and stakeholders for effective management of the Authority's objectives.

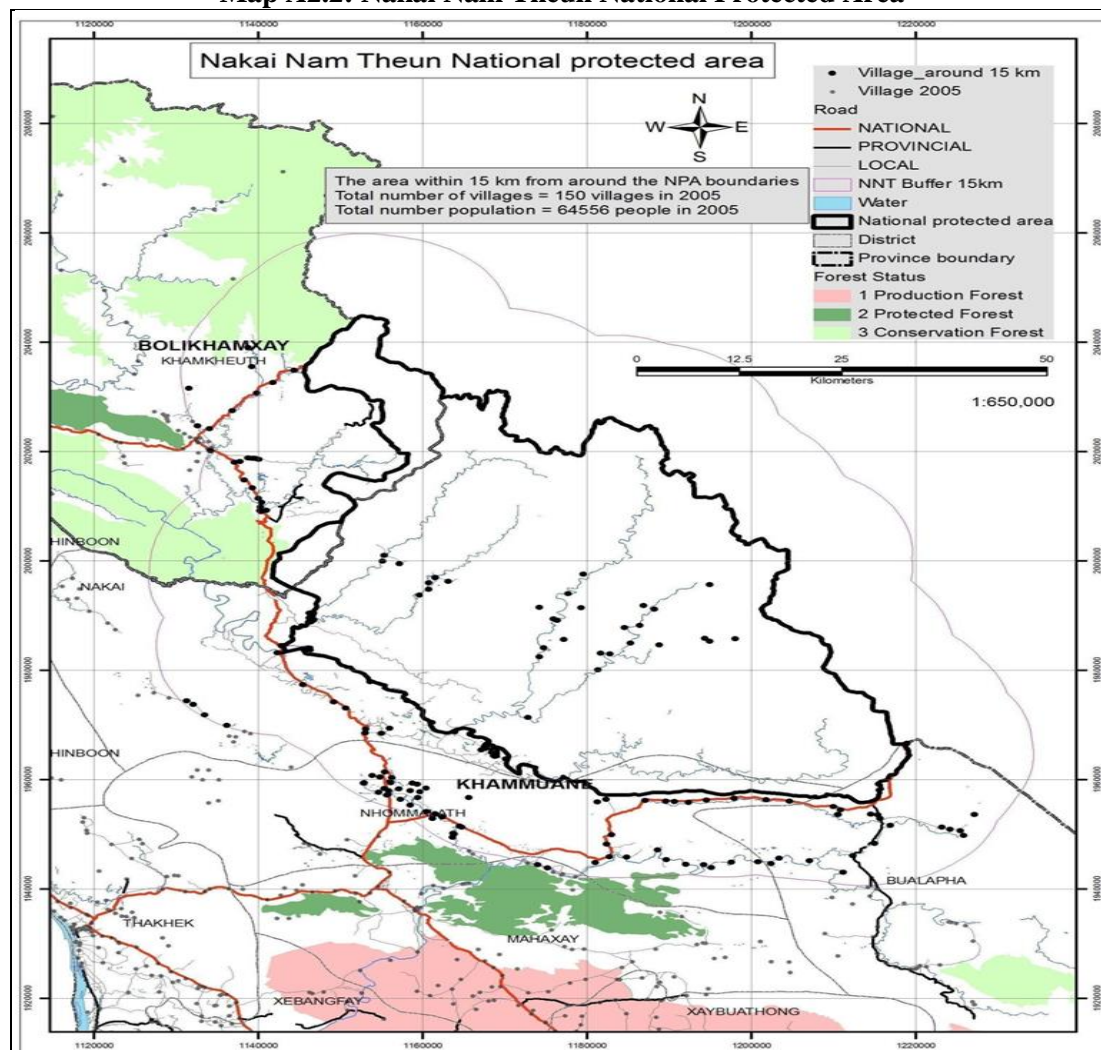
### **Current Biophysical Status**

21. The SaiPhouLouang (Annamite) Mountains within the NPA running NW-SE dissected by NE-SW oriented river valleys form the bulk of the protected area. As these rivers emerge through gorges in the Dividing Hills onto the Nakai Plateau, the five main rivers (Nam Sot, Nam Mon, Nam Theun, Nam Noy and Nam One) widen and meander, creating rich riverine forest habitat. The Dividing Hills are a NW-SE oriented range up to 1,000 metres separating the Nakai Plateau from the Northern and Central Mountains area. The Nam Theun leaves the plateau at its northwestern end, turns to the west and eventually joins the Mekong River as the Nam Kading. Elevations in the NPA range from 500-2,200 metres above sea level; with 500-580 metres on the Nakai Plateau, 600-1,100 metres in the Dividing Hills; and 600-2,200 metres in the Central and Southern Mountains.

22. A block of mountains covering around 800 square km forms the heart of the protected area. They are mostly above 1000 metres, with many peaks above 1,500 metres and the summit ridge rising to 2,200 metres at PhouLaoko. This is the catchment for the Nam Sot, Nam Mon and Nam Theun rivers. Established settlements in the lower, flatter portions of these river valleys form two enclaves, named by their sub-districts as TasengNavang around the Nam Sot and Nam Mon, and Taseng Thaphaiban around the Nam Theun. To the north, the very high ground is continuous with the Northern Mountains. South of the Central Mountains there is a stretch of slightly lower mountains, here named the Southern Mountains, which are the catchments of the Nam Noy and Nam Pheo.

23. The Nakai Plateau is the relatively flat area around the confluences of Nam Theun with Nam Sot, Nam One and Nam Noy. The rectangular plateau covers about 1,200 square kilometres and ranges from about 490 to 600 metres above sea level and merges into the Dividing Hills to the east and southeast. To the south, the plateau drops away sharply to the cultivated Gnommalat lowlands.

Map A2.2: Nakai Nam Theun National Protected Area



### Biodiversity Values

24. There is a complex range of habitats in the NNT NPA that reflect pronounced gradients in soils, altitudes and microclimates. Habitat types usually blend into one another, and there is rarely a sharp divide between them.

25. Evergreen forest has plant families and genera typical for other parts of Southeast Asia. Commonly found are species of *Dipterocarpus* and *Shorea* in the Dipterocarpaceae, and species of Myristicaceae, Annonaceae, Rutaceae, Sapindaceae, and Fabaceae etc. The upper canopy reaches generally around 20 metres, with emergent trees reaching to about 30 metres. The diameter of larger trees is in the 50-60 cm class; with occasional emergent trees having diameters exceeding 120-cm. Undisturbed montane Fagaceous forest dominates the northern areas where it generally occurs at higher elevations. Ridges above 950 metres toward the Vietnam border in the southern part of the NPA have scattered and small populations of cypress. Like evergreen forest, Fagaceous forest shows a mosaic of species associations and distribution patterns. Within the Fagaceae and other families, some species are generalists, found everywhere, and others are highly localized.

26. Cloud forest exists on the summit of PhouChomvoy and the upper reaches of the mountains in the north and south. The transition between montane Fagaceous and cloud Ericaceous forest is sharp,

occurring at about 1600 metres. Ericaceous species dominate this habitat, in particular *Rhododendron cf. veitchianum* Hooker.

27. One of the unique features of the NPA is the occurrence of highly restricted 'everwet forest'. This occurs only in narrow bands where there are low elevation saddles in the SaiPhouLouang (Annamite) chain. These saddles allow the Vietnamese northeast monsoon to penetrate across the border and consequently these areas receive rain for up to ten months of the year. These areas are typically very wet in January-February when adjacent areas of habitat are in the midst of harsh dry season. It is probable that the fauna and flora assemblages are unique, as the habitat occurs nowhere else in Lao PDR.

### Wildlife Resources

28. The NNT NPA represents Lao PDR's largest and most diverse natural forest area of Lao PDR. Three of the last five large mammals to be discovered or re-discovered worldwide occur in the NNT NPA. The most distinct of these remarkable discoveries is the Saola *Pseudoryx nghetinhensis* (Dung et al. 1993; Schaller & Rabinowitz 1994). Other newly discovered species, a small dark muntjac and Giant Muntjac *Megamuntiacus vuquangensis* (Tuoc et al. 1994; Schaller & Vrba 1996) also have restricted world ranges centred on the NNT NPA. The Indochinese Warty Pig *Sus bucculentus* was rediscovered in the area (Groves et al. 1997) after being considered extinct (Salter 1993). Field surveys indicate that mammal communities within the protected area are exceptionally diverse. At least nine species of primate occur, including four threatened taxa to which the NPA represents a global stronghold (Pygmy Loris *Nycticebus pygmaeus*, Douc Langur *Pygathrix nemaeus*, Francois' Langur *P. nemaeus francoisi* and White-cheeked Gibbon *Hylobates leucogenys*).

29. In addition 16 species of carnivore have been recorded, and further species have been found in the NPA. This is the highest diversity of mammalian predators reported at a single site in Lao PDR-Cambodia-Vietnam. Included amongst these are many rare cats (Fishing Cat *Prionailurus viverrinus*, Golden Cat *Catopumatemmincki*, Marbled Cat *Pardofelis marmorata*, Clouded Leopard *Pardofelis nebulosa* and Tiger *Panthera tigris*), several of which have not been recently observed by biologists elsewhere in Lao PDR.

30. The NPA holds significant populations of many mammals including Asian Elephants *Elephas maximus*. Few Elephants are found elsewhere in the NPA and, moreover, few viable populations of elephants currently exist elsewhere in Lao PDR.

31. Surveys have found approximately 430 bird species in the NNT NPA (Timmins & Evans 1996, Tizard 1996, Tobias 1997). This is the highest diversity of any site yet surveyed in Lao PDR, and amongst the highest recorded in protected areas across Southeast Asia. In terms of key species of conservation concern, 56 have been found in the NPA. If it is accepted that birds provide an appropriate basis for evaluating the importance of an area to wildlife conservation (due to ease of specific identification, availability of detailed distributional data and globally standardized categories of threat), these totals establish the NNT NPA as the most important site yet surveyed in the Lao PDR-Cambodia-Vietnam region.

32. The Nakai Plateau supports many threatened birds (WCS 1995a, 1995b). The northern forests contain one of the largest populations ever recorded of Crested Argus *Rheinwardia ocellata*, an endangered pheasant.

33. Surveys in the Nam Theun and Xe Bang fai basins indicate diverse fish communities comprising many species with restricted ranges and high conservation importance (Kottelat 1996; Roberts 1996). Although the Nam Theun was found to be less diverse than the Xe Bang fai (60 as opposed to 131 species) it contained a higher proportion of endemic species (18% as opposed to 4%; Kottelat 1996).

**Table A2.2: Most threatened wildlife species recorded in the NNT NPA**

Scientific Name	Common Name	Global Threat Status		At Risk in Lao PDR
		Critically Endangered	Endangered	
<i>Amblonyx cinereus</i>	Oriental Small-Clawed Otter	-	-	√
<i>Arctictis binturong</i>	Binturong	-	-	√
<i>Bos gaurus</i>	Gaur	-	-	√
<i>Bos javanicus</i>	Banteng	-	√	√
<i>Cuon alpinus</i>	Dhole	-	-	√
<i>Elephas maximus</i>	Asian Elephant	-	√	√
<i>Felis chaus</i>	Jungle cat	-	-	√
<i>Lutrogale perspicillata</i>	Smooth-Coated Otter	-	-	√
<i>Manis javanica</i>	Sunda Pangolin	-	-	√
<i>Manis pentadactyla</i>	Chinese Pangolin	-	-	√
<i>Miniopterus schreibersii</i>	Common Bent-Winged Bat	-	-	√
<i>Neofelis nebulosa</i>	Clouded Leopard	-	-	√
<i>Panthera pardus</i>	Leopard	-	-	√
<i>Panthera tigris</i>	Tiger	-	√	√
<i>Pseudoryx nghetinhensis</i>	Soala	-	√	√
<i>Pygathrix nemaeus</i>	Douc Langur	-	√	√
<i>Rhinoceros sondaicus</i> / <i>Dicerorhinus sumatrensis</i>	Rhinoceros sp.	√	-	-
<i>Ursus malayanus</i>	Sun Bear	-	-	√
<i>Ursus thibetanus</i>	Asiatic Black Bear	-	-	√
<i>Aceros nipalensis</i>	Rufous-necked hornbill	-	-	√
<i>Aceros undulatus</i>	Wreathed hornbill	-	-	√
<i>Anser anser</i>	Greylag goose	-	-	√
<i>Buceros bicornis</i>	Great hornbill	-	-	√
<i>Cairina scutulata</i>	White-winged Duck	-	√	√
<i>Ciconia nigra</i>	Black stork	-	-	√
<i>Ducula aenea</i>	Green imperial pigeon	-	-	√
<i>Ichthyophaga humilis</i>	Lesser fish eagle	-	-	√
<i>Ichthyophaga ichthyaetus</i>	Grey-headed Fish Eagle	-	-	√
<i>Milvus migrans</i>	Black kite	-	-	√
<i>Pavoninus</i>	Green Peafowl	-	-	√
<i>Rheinardia ocellata</i>	Crested argus	-	-	√
<i>Vanellus duvaucelii</i>	River lapwing	-	-	√
<i>Cuoragalbinifrons</i>	Indochinese box turtle	√	-	√
<i>Cuoratrifasciata</i>	Chinese three-striped box turtle	√	-	-
<i>Indotestudo elongata</i>	Elongated tortoise	-	√	√
<i>Manouria impressa</i>	Impressed tortoise	-	-	√
<i>Platysternon megacephalum</i>	Big-headed turtle	-	√	√
<i>Pyxidea mouhotii</i>	Keeled box turtle	-	√	√
<i>Sacalia quadriocellata</i>	Four-eyed turtle	-	√	-
Notes:				
<i>i)</i> Species falling into IUCN categories "Vulnerable" or "Near Threatened" are not marked or included in this summary table.				
<i>ii)</i> Global Threat Status is recorded in IUCN 2003 Red List of Threatened Animals. National status follows <i>Duckworth et al. 1999</i> .				

### Appendix 3: Issues and Mitigation Measures for Actions in Protected Forest Areas

1. Protected area (PA) covers conservation areas as well as protection forest area at national and local levels. Conservation area is considered the most sensitive area where careful consideration will be necessary. This annex outlines the potential impacts and mitigation measures to be applied for PA in Loa PDR (Part I Section A3.1-A3.9) as well as those outside threats nearby the areas (Part II Section A3.10-A3.14). The issues and mitigation measures identified in this annex are similar to those approved for PAW and they will be considered during the preparation and implementation of the ESMP and/or CEF process as needed. The ESMP will be a key safeguard document for the subproject that requires WB clearance before signing and/or extension of the subgrant.

#### Part I: POTENTIAL PROJECT IMPACT AND MITIGATION

##### A3.1 NPA Macro Zoning and Demarcation activities

2. To achieve its conservation aim of sustainable natural resource management and to protect natural habitat and wildlife, as per the requirements of the Forest law, sub-project will review existing macro zoning of NPAs in Total Protection Zone and Multiple Use Zone and Village Areas followed by physical demarcation.

##### Objective

3. To mitigate potential disagreements and conflicts that could delay activities related to forest, land use zoning and demarcation of NPA boundaries.

Issue	World Bank Triggers	Safeguards Response Summary
Land use planning at NPA level	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04) Involuntary Resettlement (OP4.12)	<ul style="list-style-type: none"> <li>– Zoning to follow national regulations on PAs</li> <li>– Zoning to reserve enough land for food security of affected households</li> <li>– Zoning process to follow free, prior, and informed communication</li> <li>– Zoning to be depicted on a map communicated to the villagers</li> <li>– Zoning map to be annexed to Community Action Plans and Conservation Agreements, which will be developed during the project implementation</li> <li>– Demarcation process to ensure all villages with existing usage inside NPAs are consulted</li> <li>– Minutes of consultation meetings on demarcation to be prepared and shared with communities</li> <li>– Exclusion and loss of access to NPA areas to be negotiated with communities and appropriate alternatives provided.</li> </ul>

##### Mitigation Process

4. The following mitigation measures are identified. The CEF should be used first to prepare CAPs geared at mitigation of these issues:

- Forest and land use zoning should follow national regulations on protected areas, and approved regulations and guidelines for the management of the PA
- Process of land use planning should use approved and current guidelines for Participatory Land Use Planning (PLUP)

- Forest and land use zoning should aim to ensure there are enough areas for meeting food security requirements of affected households, subject to environmental carrying capacity and technical considerations
- Forest and land use zoning process should follow free, prior, and informed communication and establish broad community support through the CEF process
- All agreements related to forest and land use zoning should be agreed, written, and depicted on a map that is communicated to the villages in appropriate cultural context and local language
- All agreements related to forest and land use zoning should be annexed to the Community Action Plan, which will be prepared during project implementation
- Demarcation process should ensure all villages with existing usage inside PAs are brought together for consultation process
- Minutes of consultation meetings related to demarcation should be prepared and shared with communities in appropriate cultural context and language
- Exclusion and loss of access to PA areas should be negotiated with communities and appropriate alternatives provided.

### A3.2 Increased patrolling activities

5. To improve law enforcement especially against wildlife trade, and timber, amongst other activities, enhanced forest patrolling will be used in PA areas that are especially targeted by wildlife traders, hunters, and poachers. Prime Minister's Decree No 111/PM determines location of geographical landscapes to ensure that the strategic areas of national defense and security are managed in accordance with the national defense strategic plan including a 15 km borderline zone from the international border where patrols must be carried out in the presence of military officers.

#### Objective

6. To ensure enhanced PA patrolling does not have an unintended negative impact on fragile habitat and species without compromising the need for increased patrols.

Issue	World Bank Triggers	Safeguards Response Summary
Increased patrolling	Forests (4.36) Natural Habitats (4.04)	<ul style="list-style-type: none"> <li>– Zoning to follow national regulations on PAs</li> <li>– New tracks based on evidence and after considering alternative options</li> <li>– Camps to follow environmental protocols and to be dismantled after use</li> <li>– Location of camps to avoid fragile habitats</li> <li>– Manage fire hazard from forest patrol camps.</li> <li>– Provide training and orientation to rangers.</li> </ul>

#### Mitigation Process

7. Key measures include:
- Forest patrolling to establish new tracks and access based on adequate evidence and after considering alternative options
  - Camps for forest patrols should follow all environmental protocols and should be dismantled completely
  - Number of rangers in patrol and size of camps should be moderated to ensure very large camps are not required
  - Location of camps should take into account fragile areas, and habitats
  - Fire hazard from forest patrol camps should be managed as per protocols

- Provide training and orientation to ranger's related to fragile habitat, garbage management and disposal, and fire risk mitigation
- Learn well the Decree, especially the overlaps with project districts that are listed in the Decree; invite the representative of the Ministry of Defense to participate in the provincial and district institutional arrangements; and establish constructive communication with local military authorities by sharing project goals and objectives with them and eliciting their cooperation.

### A3.3 Alternative Livelihood Development activities

8. Alternative livelihood development activities by the project may lead to minor environmental impacts such as soil erosion, small clearing for houses, etc. that are well with mitigation capability of the project. Some of the likely development activities to be supported by the project will be small agriculture improvement, small irrigation facilities, improved access through repair of trails and tracks, livestock development, and small scale water supply. Sustainable harvesting and first stage processing of NTFPs may also be included in livelihood development.

#### Objective

9. The overall objective will be to avoid and/or minimize negative environmental impact on forests, biodiversity, and natural habitats.

Issue	World Bank Triggers	Safeguards Response Summary
Livelihood development	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04) Involuntary Resettlement (OP4.12)	<ul style="list-style-type: none"> <li>– Use CEF process to explore livelihood development options</li> <li>– For livestock related livelihood activities undertake livestock survey, assess several options, and ensure livestock option does not enhance grazing pressure on the PA.</li> <li>– For NTFPs assess harvesting practices, and introduce sustainable harvesting protocols through awareness and training.</li> <li>– For the construction of small infrastructure such as laying of pipes, small hydro, trail maintenance, etc.</li> <li>– PMP should be applied as required if supported irrigation development and agriculture extension.</li> <li>– Chance find procedures to be applied as required.</li> </ul>

#### Mitigation Process

10. The following mitigation measures are identified. In most cases, social issues are more relevant. Then, the CEF should be used first to prepare CCAPs geared at mitigation of these issues:

- Use CEF process to explore livelihood development options that have the least negative impact on natural resources (see Annex 2 of the CEF on negative list)
- For livestock related livelihood activities undertake livestock survey to identify number and livestock diversity; access carrying capacity of existing grazing areas, assess supply of fodder from different sources and pay special attention to seasonal availability of fodder, including fodder banks during dry season. Ensure livestock programmes do not enhance grazing pressure on project areas. Assess options for stall-feeding, breed improvement and enhanced veterinary care

- For NTFPs assess high conservation areas, undertake biodiversity surveys, assess harvesting practices, and introduce sustainable harvesting protocols through awareness and training. Identify NTFP usage and delineate domestic use from commercial collectors. Include collectors who depend on NTFPs for additional income in awareness and training programmes. Explore of first-stage drying, sorting, and processing can be undertaken in buffer zones and undertake commodity-based value chain analysis
- For livelihood activities that will involve construction of small infrastructure, laying of pipes, use of construction material use PAW negative checklist for prohibited activities; screening questions for minor, potential impacts, and mitigation measures for very small civil works, as well as for buildings.
- In addition, if the project activity is to support the development/rehabilitation of irrigation system and agriculture extension, which pesticide maybe applied by villagers themselves; the simplify PMP should be applied as required. Training will be provided during project implementation to the Khumban agriculture extension staff and village production group.

### A3.4 Development of small infrastructure activities

11. The project will not finance any major civil work investments. Small civil works such as construction/rehabilitation of office buildings, stores and such structures that will contribute to effective management and implementation of sub-project activities may be financed. The environmental impacts of these structures will be minor, temporary, localized and the impacts will be mitigated through mitigation measures during the sub-project preparation, design and construction. In additions an Environmental Code of Practice (ECOP) will be integrated into subproject activities and contract documents. Several simple mitigation measures for small sub-projects for diverse civil works have been developed and will be applied by the project. Appendixes 4 and 5 provide mitigation measures for civil works and the ECOPs.

12. Some subprojects will support PA development. Those sub-projects will try to avoid any form of construction as far as feasible. However, in order to meet some of its project objectives of improved law enforcement against wildlife trade and timber, strengthening of livelihood options from tourism etc, some minor construction and small infrastructure works may be necessary. These could include check points in selected locations of PA areas, tourist camps, and improvement of access and safety for tourists, etc.

#### Objective

13. The objective will be to avoid and/or minimise negative environmental impact of any infrastructure on people, waterways, groundwater, forests, biodiversity, and natural habitats.

Issue	World Bank Triggers	Safeguards Response Summary
Small infrastructure development	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04) Involuntary Resettlement (OP4.12)	<ul style="list-style-type: none"> <li>– All proposals for small infrastructure to be reviewed against the LENS2 negative checklist for prohibited activities.</li> <li>– All proposed infrastructure to use the tools provided in appropriate <u>appendixes of this ESMF</u></li> <li>– If land must be acquired, follow the Resettlement Policy Framework found in Annex 1 of the CEF</li> </ul>

#### Mitigation Process

14. All proposals for small infrastructure should first be reviewed against the LENS2 negative checklist for prohibited activities followed by the screening questions for projects. All small



infrastructures must follow mitigation measures for very small civil works, and mitigation measures for buildings. In addition ECOP has been provided and these must be followed as required.

### A3.5 Ecotourism Activities

15. The objective of eco-tourism is to generate local employment, and sustainable finance for management of protected areas. The LENS2 project funds will be used to supplement existing investments in eco-tourism in, and in areas adjacent to the PAs. However fragile, highland areas are prone to accompanying negative impacts that need mitigation.

#### Objective

To avoid negative, direct and indirect impacts, on forest resources, biodiversity, NTFPs caused by project activities to enhance eco-tourism.

Issue	World Bank Triggers	Safeguards Response Summary
Illegal Wildlife Trade	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04)	<ul style="list-style-type: none"> <li>– Assess availability of infrastructure for tourism and regulate inflow of tourists as appropriate</li> <li>– Assess impact of increased tourists</li> <li>– Ensure proposed tourism sites are not in fragile natural habitat areas</li> <li>– Undertake orientation and training of local people involved in eco-tourism</li> <li>– Ensure all tourist camps have signage, garbage disposal arrangements, and fire management equipment</li> <li>– Provide orientation and briefings to tourists about PA</li> <li>– Apply ECOP to all infrastructures that will be built by the project</li> <li>– Apply CEF procedures if Community grants are mobilized to develop tourism ventures.</li> </ul>

#### Mitigation Process

16. Key measures include:

- Assess availability of infrastructure for tourism and regulate inflow of tourists as appropriate
- Assess impact of increased tourists and accompanying demand on fuel wood from PA areas, increased harvesting of selected NTFPs, or wild fruits, herbs et al for consumption and sale
- Assess emergence of local forest, bamboo, NTFP-based household production for tourists and its impact on unsustainable harvesting
- Assess location of tourist spots and ensure sites are not in fragile natural habitat areas
- Undertake seasonal analysis of tourist inflow and co relate with breeding cycles of species those are attractive to tourists
- Undertake orientation and training of local people involved in eco-tourism especially with relation to negative impacts of tourism on the environment and forest resources
- Ensure all tourist camps are clearly marked with signage, have garbage disposal arrangements, and fire management equipment
- Provide orientation and briefings to tourists about PA, make available educational and awareness material in appropriate language
- Apply ECOP to all infrastructures that will be built by the project.

### A3.6 Increased poaching and illegal logging from roads and trails

17. No road construction or development is planned under any sub-project. But existing PA management roads or tourism/patrol trails would be maintained. Significant overharvesting of wildlife typifies NPAs with repeated violations of wildlife protection and trading laws. In terms of catalysts for wildlife hunting, roads are among the most damaging changes to an area. Road and track development potentially completes links between the markets and new sources of wildlife or logs where roads and track upgrades have been put into new areas.

#### Objective

18. To plan and implement access infrastructure and equipment not to increase opportunity for illegal wildlife trade or illegal logging within LENS2 project areas.

Issue	World Bank Triggers	Safeguards Response Summary
Illegal Wildlife Trade	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04)	<ul style="list-style-type: none"> <li>– Limit new road developments and road/track upgrades to areas where surveillance can be organized.</li> <li>– Avoid opening tracks that can be used with transport equipment such as hand tractors especially if the area has evidence of threats.</li> <li>– Avoid road network development of any kind in or near key landscape features identified as HCV1-6</li> <li>– Ensure that Conservation Contracts are signed before purchasing any equipment that may be used to transport illegally harvested NTFPs, wildlife or logs as part of a Community Grant for CAP implementation.</li> <li>– Apply Negative Checklist and Project Screening procedures for new road and track developments.</li> <li>– Using data from “occupancy survey” undertake annual review of wildlife threats, illegal logging activities and report findings to DoFI and relevant line agencies</li> <li>– Using satellite images every 3 years, review the evolution of forest cover and report findings to DoFI and relevant line agencies</li> <li>– Form and maintain relationships with line agencies and collaborate on matters relating to NPA management</li> <li>– Assess community grants through project screening procedures (see Annex 2 of CEF)</li> </ul>

#### Mitigation Process

19. Key measure includes:

- Avoid unnecessary access facilitation.
- Limit road network developments, road upgrades and track construction to a minimum for livelihood development activities.
- Comply with the Negative Checklist and Project Screening Procedures, and Table below, where new roads and upgrades will be required.
- After review of the proposed biodiversity assessments, full compliance to agreed recommendations, which may include restriction to key landscape features.

20. At the time of ESMF preparation, information relating to the design requirements and location of new access roads, tracks in the two selected NPAs were not concluded. This information will be formulated as part of the planning and consultation phase. Below provides a list of key landscape features identified as warranting special consideration for conservation/protection.

Road Access Restriction to Key Landscape Features (from MAF, 2010)

Habitat Feature	Zonation response	Priority
Mineral licks	No roads, road upgrades, tracks or track upgrades	Acute
Permanent natural pools and swamps	No roads, road upgrades, tracks or track upgrades	Acute
Seasonal natural pools and swamps	No roads, road upgrades, tracks or track upgrades	High
Swamp-forests and swamp-bush lands (permanently or seasonally inundated)	No roads, road upgrades, tracks or track upgrades	Acute
Seasonally inundated grassland	No roads, road upgrades, tracks or track upgrades	Acute
Caves	No roads, road upgrades, tracks or track upgrades to caves; no material to go into caves; no alteration of entrances	Mid
Small karsts far from any large karsts	No roads, road upgrades, tracks or track upgrades; no quarrying whatsoever.	High
Large water bird nest trees	No harvest of adults or nestlings or eggs	Mid
Large karsts	No roads, road upgrades, tracks or track upgrades	Mid
Level lowland forest (4+ km <sup>2</sup> contiguous)	No roads, road upgrades, tracks or track upgrades	Acute
Areas with large parts (25 km <sup>2</sup> +), more than half-a-day's travel from any village, road or navigable river	No new access roads into the area or its ½-day travel buffer.	Acute
Conservation and protection areas	No access or tracks to intersect conservation or protection status land areas of any description	Acute

### A3.7 Pesticide management

21. The project will not support procurement of any pesticides; however, pesticide and fertilizer use by villager's themselves in the PAW project may not be totally avoided since the village grant may finance agriculture extension and investment (see also the CEF). All sub-project activities will be screen through the Negative Check List and Project Screening Process. In addition a simplified Pesticide Management Plan (PMP) has been prepared and is available at [Appendix 8](#). Training will be provided during project implementation to the Khumban agriculture extension staff and village production group on integrated pest management (IPM) approaches.

#### Objective

22. The objective will be to minimize use and reliance on non-biological controls of pests. The primary aim of pest management will be not to eradicate all organisms, but to manage particular pests and diseases that may negatively affect forest, land and water resources so that these resources remain at a level that is below an economically and environmentally damaging threshold.

Issue	World Bank	Safeguard Response Summary
	trigger(s)	

Improper use of pesticides and fertilisers that may cause harm to humans, biodiversity and the environment	Pest Management (OP.4.09)	<ul style="list-style-type: none"> <li>– Avoid pesticide use where ever and whenever possible.</li> <li>– Identify through CEF high-risk villages and forest landscapes.</li> <li>– Negative Checklist and Project Screening Procedures for all sub component projects.</li> <li>– Develop Integrated Pest Management Plans where pesticides are required.</li> <li>– Provide village training and safety equipment for sub-projects that require pesticide and fertilizer use</li> <li>– Poison and contamination testing.</li> </ul>
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### Mitigation Process

23. The project will adopt the Regulation on the Control of Pesticides No 2860/MAF, Lao PDR that was promulgated on 10 February 2010. This regulation is an important tool and monitors activities related to pesticide including import, export, transit, trade and use. Pesticides should be managed to avoid their migration into off-site land or water environments by establishing their use as part of an Integrated Pest Management Plan, which would include a description of cultural practices, biological control, and resilient genetic strains.

24. Where feasible, the following alternatives to pesticides should be considered:

- Provide those responsible for deciding on pesticides application with training in pest identification, weed identification, and field scouting
- Introduction of crop and tree inter-planting
- Use of pest-resistant crop varieties
- Support and use of beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests
- Protect natural enemies of pests by providing a favourable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators

25. If pesticide application is warranted the following precautions to reduce the likelihood of environmental impacts should be used:

- Train personnel to apply pesticides and ensure that personnel have received applicable certifications or equivalent training where such certifications are required
- Review the manufacturer's directions on maximum recommended dosage or treatment as well as published reports on using the reduced rate of pesticide application without loss of effect, and apply the minimum effective dose
- Apply pesticides based on criteria such as field observations, weather data, time of treatment, and dosage, and maintain a pesticide logbook to record such information
- Avoid the use of pesticides that fall under the World Health Organization Recommended Classification of Pesticides by Hazard Classes 1a and 1b.
- Avoid the use of pesticides that fall under the World Health Organization Recommended Classification of Pesticides by Hazard Class II
- Avoid the use of pesticides listed in Annexes A and B of the Stockholm Convention, except under the conditions noted in the Convention
- Use only pesticides that are manufactured under license and registered and approved by the appropriate authority and in accordance with the Food and Agriculture Organization's (FAO's) International Code of Conduct on the Distribution and Use of Pesticides
- Use only pesticides that are labeled in accordance with international standards and norms, such as the FAO's Revised Guidelines for Good Labeling Practice for Pesticides
- Select application technologies and practices designed to reduce unintentional drift or runoff only as indicated in an IPM program, and under controlled conditions

- Maintain and calibrate pesticide application equipment in accordance with manufacturer's recommendations
- Establish untreated buffer zones or strips along water sources, rivers, streams, ponds, lakes, and ditches to help protect water resources
- Avoid use of pesticides that have been linked to localized environmental problems and threats.

26. To prevent, reduce, or control the potential contamination of soils, groundwater, or surface water resources, which may result from accidental spills during transfer, mixing, and storage, pesticides should be stored and handled in accordance with the recommendations for hazardous materials management in the FAO Guidelines.

27. Integrate specific enquiry in CEF process to village use of pesticides and fertilizers. This includes an assessment of the knowledge base of those villages that work within local commercial crop plantations. Evaluate locations of possible land and water contamination, causes and effects. Erect signboards in local language that caution risks related to potential chemical poisoning and contamination.

28. It is recommended that within high-risk project villages chemical incidence observation committees be established. Priority villages include:

- Villages that store and use chemicals for their own needs
- Villages that store chemicals within their village boundaries on behalf of local agribusiness,
- Villages within 5 km of commercial crop plantations, and
- Villages affected by incidences of poisoning and contamination.

29. The village based monitoring group will require basic training to respond to reports of adverse events related to pesticides within a reasonable period of time. The community-based approach will ensure the most effective mechanism for surveillance and providing immediate health care.

### A3.8 Physical Cultural Resources

30. Sub-project activities in NPAs may cover diverse ethnicities, cultures, and spiritual practices that have the potential to impact on Physical Cultural Resources (PCR). For example, opening new tracks in a NPA for patrolling a new areas may stumble of an old stupa, or a new paddy field enables by a community grant irrigation scheme may unearth artifacts or old grave yards. PCR are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Chance Find Procedures' have been developed to mitigate against damage or loss to PCRs.

#### Objective

31. Assist in preserving Physical Cultural Resources (PCR) and in avoiding their destruction or damage. PCR includes resources of archaeological, paleontological, historical, architectural, religious, including graveyards and burial sites, aesthetic, or other cultural significance.

Issue	World Bank	Safeguard Response Summary
Loss, damage, theft, of physical	Physical Cultural Resources (OP.4.11)	<ul style="list-style-type: none"> <li>– Negative Checklist and Project Screening Procedures for all sub component projects.</li> <li>– Evaluations of cultural and archaeological significants to be undertaken as part of ESMF chance find procedure</li> </ul>

cultural resources from project related activities		
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### Mitigation Process

32. The general approach regarding physical cultural property is to develop management and mitigation measures to assist in their preservation, and to avoid their elimination. In some cases this may require that project features or activities are redesigned in order that sites, objects and structures can be preserved, studied, and restored intact in situ. In other cases, structures may need to be relocated, preserved, studied, and restored on alternate sites. In other cases, scientific study, selective salvage, and museum preservation before destruction may be necessary in the detection, reporting of, and the prevention of disturbance and damage to objects and sites of physical and cultural significance.

33. To minimize impacts to artefacts Chance Find Procedures have been developed. The objectives of the Chance Find procedures are:

- Minimize impacts to resources from all project related activities
- Ensure that artefacts uncovered are appropriately recorded, documented and reported to appropriate agencies.

34. To identify and manage any chance finds and comply with the relevant regulations, the following actions will need to be employed by the project:

- The DoNRE and Village Chief, with assistance from the subproject owner will mobilize a consultant specialist in artefact to remove the PCR to a secure location. If the artefact is large and cannot be easily removed, or is one of a number of objects, then the Ministry of Information and Culture must be informed as soon as possible to allow them to investigate the find in situ.
- Should a chance find or investigation interfere with forestry operations or livelihood enhancement activities, or affect the planned location of facilities etc, then the DoNRE and Village Chief will need to liaise with the Ministry of Information and Culture to determine the best course of action.
- The DoNRE and Village Chief should advise any contractors of any changes to PCR procedures or forestry operations as a result of the chance find. For disputed PCR artefacts, the Ministry of Information and Culture of Lao PDR will determine ownership.
- The Project Screening Process and the Chance Find Procedures will assist local project implementers to determine if the PCR will be affected and the action required for conservation.

#### Box A3.1: Chance Find Procedures

- A suspected PCR find should not be moved or interfered with.
- A suspected PCR find should be reported immediately to the Village Chief and DoNRE representative.
- All work potentially impacting on the find should be suspended whilst these parties assess the find.
- The DoNRE and Village Chief will immediately mark the location of the find and take necessary precautions to protect the site from further disturbance, including limiting access to the site.
- If the find contains suspected human remains the DoNRE and Village Chief will be required to notify the relevant District Administration immediately and take instructions from the District

Administration.

- The DoNRE and Village Chief will need to record the depth of the artefact and document and photograph the artefact in situ.
- The DoNRE rep and Village Chief will need to prepare a Chance Find Report
- The Chance Find Report must be submitted to the Provincial Ministry of Information and Culture, and PoNRE within 48 hours.

### A3.9 Guidelines, policy and human resources development

35. The essence of the project is to build the GoL institutions capacity to address better the management of biodiversity in NPAs and prevent wildlife trafficking. This implies significant resource allocation to subproject that will help educate the people of Laos and the staff (also future staff) of the public agencies such as DFRM and DOFI and their provincial and district emanations. As guidelines, regulations, policies are reviewed and as curriculum for short courses or bachelor are developed, there is a risk that the set up systems or deliver knowledge that is in opposition with the safeguard, or at least with the “spirit” of the Bank safeguards. The risk is minor as safeguards laws of Laos mirror the World Bank safeguard laws.

#### Objective

36. To avoid that training curricula and policy development deliver knowledge and practices that lead to actions on the ground that may not be compatible with customary safeguards standards.

Issue	World Bank Triggers	Safeguards Response Summary
Knowledge and policy development	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04) Involuntary Resettlement (OP4.12)	<ul style="list-style-type: none"> <li>– Screening of proposed activities at sub-project proposal stage</li> <li>– Commitment by subproject owner in the ESMPs that all proposed curricula, guidelines, regulations, practices, are to remain fully compatible with the Laos environment laws and possibly with international safeguard standards.</li> <li>– Subproject owner commit in the ESMP to full transparency, adequate consultations so partners and people of Laos have the opportunity to comment and improve proposed instruments.</li> </ul>

#### Mitigation

37. Key measures include:

- Subproject owner proposing capacity building sub-project will need to document that no policy, knowledge, guidelines and practices developed with sub-project funds would be fully aligned with, and verification will be carried out, the Laos PDR environment laws.
- External consultation, with full transparence, on all instruments proposed, curriculum developed, legal framework designed, etc. so the PAW project partners can exercise due diligence on this standards.

### A3.10 Water pollution, land/water uses, and safety

38. There are concerns regarding potential negative impacts on water quality, water quantity, soil erosion, land/water uses in upstream/downstream areas, and safety regarding to public health and/or safety risks due to UXO. These impacts are expected to be small since the subproject will be identified/ prepared through active participation of local authorities and key stakeholders in line with IWRM principles. There are on-going processes to develop a river basin management organization

and approach to be applied in several river basins, and this approach will be supported under LENS 2 subprojects.

### Objective

39. To ensure that water resources related subproject will not create adverse impacts on water quality, water quantity, soil erosion, etc.

Issue	World Bank Triggers	Safeguards Response Summary
Water quality, water quantity, soil erosion, safety	Environmental Assessment (4.01) Natural Habitats (4.04) Involuntary Resettlement (OP4.12); ethnic groups (OP 4.10)	<ul style="list-style-type: none"> <li>– Apply the Negative List screening during the subproject identification/appraisal</li> <li>– Provide basic knowledge on the water resources management issues related to IWRM concept, potential impacts on water quality, water quantity, public health, soil erosion, water and/or land uses upstream and downstream as part of safeguard training.</li> <li>– Establish and conduct consultation/communication mechanism to ensure that the local community especially the ethnic groups do not have objection to the subproject.</li> <li>– Consult local authority, local community, and responsible agencies with respect to the risk regarding UXO.</li> </ul>

## Part II: POTENTIAL EXTERNAL IMPACT AND MITIGATIONS

40. The project itself, especially the PA subproject, proposes to build the various stakeholder capacity to progress toward the mitigation of external threats. These external threats (or risks) are (a) village consolidation, (b) road construction/renovation and concession-granting, (c) illegal wildlife trade, (d) illegal logging, (e) undesirable fires, (f) increased shifting cultivation. The alleviation of all will be incorporated in the PA management plan that will be developed during sub-project implementation.

### A3.11 Village Consolidation

41. In one of the selected NPAs, village consolidation has been monitored by the Nam Theun Two Dam Project. This monitoring will continue at least until the end of 2017. It should be noted that the Governor of Khammouane Province has issued in 2012 an Instruction to desist from further village consolidation in the NNT watershed area. In 2013, this instruction has been implemented and verified by the annual NT2 project supervision mission (cf. NT2 wrap up meeting to GoL).

42. The CEF provides extensive treatment of the project approach to village consolidation. On the subject of village consolidation, the CEF primes over the ESMF. The subproject owners are invited to refer to the CEF first when dealing with the issue of village consolidation as what follows is a summary.

43. Keeping in mind the above, the project will apply the following criteria related to resettlement and village consolidation:

- Villages consolidated in the past
- Identify such villages and determine through participatory consultation, and on the basis of such consultations:
  - Include villages if (i) land and tenure issues associated with the consolidation have been resolved to the satisfaction of communities, (ii) adequate land for agriculture or



other means of livelihood to improve, or at least maintain their livelihoods, has been made available, and (iii) communities provide their broad community support for participating in **LENS2** project.

- Exclude villages if outstanding issues related to land for agriculture and natural resource are identified, and convey findings to Provincial Authorities for appropriate action. Such villages can subsequently become project beneficiaries if, (i) Provincial Authorities demonstrate that issues have been resolved, (ii) communities confirm such resolution met standards of free, prior and informed consultation, and (iii) communities provide their broad community support for participating in LENS2 Project.
- Villages scheduled for consolidation
- Exclude all villages scheduled or proposed for consolidation during the project life.

### **A3.12 Roads and Concessions**

44. National, provincial and district road may cross NPAs provided they follow the national laws on EIA, obtain an Environment Compliance Certificate from PONRE which implementation and compliance is then monitored also by PONRE. The 2007 Forest law and draft PA decree are clear that hydropower, mining or agriculture concessions are not among the possible business activities, or concessions, authorized in PAs although there is no language of such concessions being prohibited.

45. However, due to unclear jurisdictional concession granting mandates, insufficient communication between departments particularly between province and central tiers, and weak monitoring and compliance enforcement, PAs and adjacent areas have experienced incompatible concession planning and granting. Most often, road and hydropower projects are considered strategic and are part of long terms country development plans (even if those plans are not always readily available).

46. Undoubtedly, those road projects and concessions constitute a threat to many NPAs in Laos. Because of their strategic importance most will proceed. However, the GoL is more and more committed to ensuring that these projects and concessions comply with national environmental and social legislations. Already most hydropower project are attaching Standard for Environmental and Social Operation (SESO) to their concession contracts. Some hydro power and mines have also started providing voluntary financial contribution to the Environment Protection Fund.

47. Improvements to monitoring and reporting, strengthening governance and interagency coordination, enforcement and legal frameworks will be used as mitigation approaches.

### **Objective**

48. To build constituency, knowledge and public sector capacity to reduce the likelihood and consequence of incompatible concession grants impacting on the work activities, timeframes deliverable and overall objectives of the LENS2 project.

#### **Concession Grants - Safeguards Response Summary**

<b>Issue</b>	<b>World Bank Triggers</b>	<b>Safeguards Response Summary</b>
Incompatible concession granting in PAs and adjacent areas	Environmental Assessment (4.01) Natural Habitats (4.04)	<ul style="list-style-type: none"> <li>– Review and update plans for road construction and concession granting.</li> <li>– Prepare and maintain a national database of roads and concessions through PAs and possibly publish it one a year and on a web site.</li> </ul>

	Forests (4.36)	<ul style="list-style-type: none"> <li>– Establish, with concerned public authorities, a participatory Strategic Environment assessment of the district development of all districts that include PA land.</li> <li>– Contribute to strengthening government institutions and policies (mostly other WB projects such as HMTA, M-IWRM)</li> <li>– Periodic meetings with relevant line agencies, donor projects, and private investors, engineers and contractors, to identify concession and roads before feasibility are initiated.</li> <li>– Demarcations of PA limits and zones.</li> <li>– Establish early response mechanisms with local communities on road construction and concession plans.</li> <li>– Avoid seeking unrealistic objective which would easily be reversed by roads and concessions (the PAW project PDO seeks to build capacity to reverse biodiversity degradation and not to actually achieve reversal during the life time of the project)</li> <li>– Suggest that the decision maker awareness sub-project includes information about the costs of road and concession overlaps with PAs.</li> </ul>
Impact of Roads construction through PAs		

### Mitigation Process

49. As per government legal and administrative position, several requirements are needed for the legal granting of concessions. These include, but are not limited, to the following:

- Completion of a land survey to identify existing land use types
- Preparation of a land map that presents the resources of the concession area along with the proposed development, and
- Preparation of a land use plan that defines the existing land use arrangements, and the proposed impacts and mitigations.

50. It is recommended, as part of the PA processes of preparing Protected Area Management Plans, that this information is obtained and the risk potential from road planning and concession granting in project areas be evaluated.

51. Utilize the concession area database under GIZ – Land Management and Registration Project (LMRP), with the Natural Resources and Environment Information Center (NREIC) under MoNRE.

52. Hold quarterly multi-jurisdictional dialogue with relevant agencies to ascertain the extent of concession grants and road construction in or near PAs. Key institutions involved will include:

- Provincial Land Management Authority
- Provincial Ministry of Planning and Investment
- Provincial Ministry of Agriculture and Forestry
- Provincial Ministry of Transport and Civil Work
- Provincial Ministry of Energy and Mines
- Representations from central Government agencies are also recommended.

53. Obtain copies of all road plans, and concession management plans, approved or planned.

54. Demarcation of PAs has proven to be an effective tool against concession granting. The demarcation sign or marking stone provides tangible physical evidence of a NPA that assists local managers and villagers to negotiate alternative land use with strong developer interests.

### A3.13 Illegal wildlife harvesting and trafficking/ illegal logging

55. Most of the subprojects are expected to have an impact on strengthen the country capacity to address illegal use of wildlife and timber for commercial purpose. Significant overharvesting of wildlife and timber typifies most PAs in Laos with repeated violations of wildlife and timber protection and trading laws.

#### Objective

56. To build the capacity of Laos PDR institutions to reduce the opportunity for illegal wildlife and timber trade within the project areas.

Issue	World Bank Triggers	Safeguards Response Summary
Illegal wildlife and timber harvesting and trade	Environmental Assessment (4.01) Forests (4.36) Natural Habitats (4.04)	<ul style="list-style-type: none"> <li>– Eligible sub-projects all address wildlife and NPA threat mitigation capacity building from all angles.</li> <li>– Sub-project all hope to help GoL mitigate the threat through better laws enforcement on trafficking</li> <li>– In provinces, enhance POFI capacity to work with partners organization against wildlife trafficking</li> <li>– Enhance capacity of PA staff and villagers to monitor, control, report and suppress illegal harvesting of wildlife and timber</li> <li>– Train and incentivise villagers through implementation of Conservation Contracts</li> <li>– Share information from village monitoring with law enforcement agencies</li> <li>– Using occupancy surveys and satellite imagery monitor wildlife threats and logging /forest cover</li> <li>– Form and maintain relationships with line agencies and collaborate on NPA management.</li> </ul>

#### Mitigation Process

57. Key measures include:

- Eligible sub-projects addresses wildlife and NPA capacity building from (a) institutional angle (DFRM, DOFI, Lao WEN, etc.), (b) the regulatory and practices angle, (c) the knowledge and human resources development angle and (d) the on-the-ground implementation angles in 5 provinces.
- Sub-project all hope to help GoL mitigate the threat through improvement and implementation of various GoL laws and regulations relating to conservation.
- In provinces, the POFI capacity to work with partners organization against wildlife trafficking will be enhances.
- In NPAs, the capacity of protected area staff and villagers to monitor, control, report and suppress illegal harvesting of wildlife and timber will be improved.
- Villages will receive training and incentive, through a step-wise approach that aims to help them implement a Conservation Contract whereby payment in Village Development Funds are made based on compliance with agreed conservation behaviour, including NPA laws.
- Village situation monitoring and results shared with law enforcement agencies and relevant line departments and agencies

- Using occupancy surveys and satellite imagery undertake review of wildlife threats and logging activities/forest cover assessment and report findings to DoFI and relevant line agencies

### A3.14 Undesirable Fires

58. PA forest types are located in landscapes that are not especially fire-prone ecosystems (e.g. dense humid forests) or where periodic fires are considered as ecological agents (e.g. grassland in NEPL). However current fire frequencies are believed to exceed natural levels. From a wildlife habitat perspective fire events could reduce habitat suitability for species. Information on fire events will be integrated in the CEF, and community based fire management will be introduced. Indigenous fire management practices will be supplemented with training and early warning. Improved communication and response protocols will be established with forest department staff. High-risk areas will be identified and appropriate fire management plans developed during project implementation.

#### Objective

59. Build knowledge and capacity to reduce undesirable fire events inside PA.

Issue	World Bank	Response Summary
Increased fire frequency	Natural Habitats (4.04) Forests (4.36)	<ul style="list-style-type: none"> <li>– Situational analysis of fire use, monitor and record fire patterns</li> <li>– Document and share experience of successful fire management from other Pas</li> </ul>

#### Mitigation Process

60. Key measures include:

- Document fire and management practices that have demonstrated sustainable fire management practices. Disseminate this information to project villages and resource managers.
- Discuss fire management with local villages through situational analysis. High-risk villages – those with excessive use that risks high quality environment – should be considered for behavioural change interventions.
- Consider fire risks, fire sensitive areas and fire management practices when drafting the PA Management Plans.
- Build community members and PA staff capacity in fire detection, prevention and suppression.

### A3.15 Shifting Cultivation

61. Shifting cultivation involves cutting down vegetation, burning it in situ and then planting crops on the cleared land. Once crops are harvested, the land is left ‘fallow’ for natural vegetation to re-grow. This agricultural system has traditionally been widely practiced in many parts of Lao PDR. Shifting cultivation (rotational) practices have been developed to account for these conditions, however conversion of land for concessions and other forms of development (mining, hydropower etc) is making even less land available for farming and food production. This is having a two-fold affect. The first is that it is forcing villages to reduce the fallow periods. A shorter fallow period produces lower yield rates than longer fallow. The second response is that to make up for the short fall

in food availability, shifting cultivation is now expanding more rapidly into new areas, vis. pioneer shifting cultivation.

62. The dilemma that will be faced by the project is that should it pursue stronger enforcement to protect forest resources, it may have the very negative consequence of reducing people's food resources.

63. The CEF provides extensive treatment of the project approach to village development compatible with PA management. On this subject of mitigating the threat from increased shifting cultivation, the CEF primes over the ESMF. The subproject owners are invited to refer to the CEF first when dealing with this issue as what follows is a summary.

### Objective

64. Build the community capacity and incentive to reduce incidence of forest conversion by reducing expansion of shifting cultivation practices, while simultaneously ensuring adequate areas and suitable land resources are provided to local communities to maintain food security.

Issue	World Bank	Safeguards Response Summary
Shifting cultivation is driver of forest cover reduction.	Natural Habitats (4.04) Forests (4.36)	<ul style="list-style-type: none"> <li>– Implement the CEF which includes participatory land use planning (PLUP) to ensure adequate land is available for food production but also for natural habitat conservation.</li> <li>– Prepare Community Action Plan (CAP) and provide community grants whereby, if it is a community priority, assistance is provided toward livelihoods less reliant on shifting cultivation such as paddy irrigation, fish management and production, etc.</li> </ul>

### Mitigation Process

65. Land use planning will need to ensure that adequate lands, both quality and quantity, are retained for the purpose of food security including shifting cultivation. This includes regulating land use in restored and regenerated forests.

66. Livelihood Grants will be used to build the capacity and infrastructure requirements of securities to expand livelihood opportunities as a means to offset dependency on shifting cultivation.

## **Appendix 4: Environmental Code of Practices (ECoP)**

1. The following good housekeeping practices (Part A) and “chance find” (Part B) are required for all contracts. The practice of housekeeping involves proper storage, use, clean up, and disposal of the various materials used during construction for human and environmental safety.

### **Part A Good Housekeeping Practices**

2. DO:

- Limited working hours during the day, especially in residential areas, and control driving speed
- Minimize earth excavation and appropriate disposal of spoil
- Minimize opening of new burrow pits and ensure proper closure
- Minimize traffic congestion, dust and noise generation
- Proper maintenance of construction equipment and vehicles
- Provide appropriate safety signs (day and night) and inform local residents
- Avoid spill of used oil and other toxic materials, including safe transportation and storage
- Apply good housekeeping in the construction and/or storage sites to ensure safety of workers and peoples. Remove debris to keep the work site orderly and safe. Plan and implement adequate disposal of scrap, waste and surplus materials. Keep work area and all equipment tidy. Designate areas for waste materials and provide containers. Keep stairways, passageways and ladders free of material, supplies and obstruction. Secure loose or light material that is stored 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 used walkways or areas. Ensure structural openings are covered/protected adequately. Provide appropriate fire extinguishers for materials found on-site. Keep fire extinguisher stations clear and accessible.
- Ensure access to clean water and latrines for workers and provide mosquito nets.
- Avoid social/cultural conflict between workers and the local population.

3. DO NOT:

- 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.
- Do not dispose off tools or other materials in the environment.
- Do not raise or lower any tool or equipment by its own cable or supply hose.
- Use grounding straps equipped with clamps on containers to prevent static electricity buildup.
- Do not allow hunting of animals by workers in protected areas.

4. SPECIAL NOTE ON FLAMMABLE/EXPLOSIVE MATERIALS

- Store flammable or explosive materials such as gasoline, oil and cleaning agents separate from other materials.
- Keep flammable and explosive materials in proper containers with contents clearly marked.
- Dispose of greasy, oily rags and other flammable materials in approved containers.
- Store full barrels in an upright position.
- Store empty barrels separately.
- Post signs prohibiting smoking, open flames and other ignition sources in areas where flammable and explosive materials are stored or used.
- Store and chain all compressed gas cylinders in an upright position.
- Mark empty cylinders and store them separately from full or partially full cylinders.
- Ventilate all storage areas properly.

- Ensure that all electric fixtures and switches are explosion proof where flammable materials are stored.
- Ensure compliance with good practices on Occupational, Health and Safety provisions for small civil works which is acceptable

**Part B The “ChanceFind” Procedures:**

5. 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.

## Appendix 5: Mitigation Measures for Small Infrastructure Subprojects

1. These mitigation measures provide technical guidelines for a simple impact assessment and mitigation measures of the sub-projects that do not require an IEE preparation as required by the Government's EIA regulation. An assessment threshold of civil works for sub-projects is described in Table A5.1; mitigation measures for very small civil works below the threshold are described in Table A5.2; and mitigation measures for buildings are provided in Table A5.3. In addition a simple environmental code of practices (ECOP) to be included in the grant agreement either with the local community and/or a contractor is provided.

Table A5.1: Assessment thresholds for civil works

	Type of investment	Thresholds
SCALE	Village rural roads, tracks and footpaths (wider than 3.5 m)	> 10 km
	Small bridges and piers	> 20 m
	Village water supply	> 2,000 users
	New construction of irrigation schemes	All
	Community Buildings (halls, health centres, schools, markets)	> 400 m <sup>2</sup>
	Sanitation Facilities ( <i>latrines</i> )	> 200 users
	Mini-hydro generators	All
Changes likely to occur in water use and/or water availability		All
Protected area or area proposed for protection by the Government		All

Table A5.2: Mitigation measures for very small civil works

Key issues to consider	Mitigation measures
<i>Location &amp; possible impact</i>	
- Land and biodiversity degradation in conservation area	No animal killing
	No land occupation
	No forest cutting
	Solid waste management
	No camping
- Flooding area	Provide adequate drainage system
	Include appropriate measures to accommodate floods such as retention pounds, diversion ditches, small dike, raising houses on stilts, etc.
- Soil erosion in mountainous area	Design slope should be less than 17%
	Side drain
	Slope protection
	Guard rail (simple type)
- Security risk to community	Speed limit sign
	Dust control
	Accident prevention
- Land property	Minutes of meeting on conflict resolution and copy of land certificate attached
	Cultural area, history
-Disturbance of fish spawning areas and migration routes	Avoid negative impacts such as disposal of spoil and tree uprooting that could silt up watercourses. Ensure optimal design.
<i>Construction phase</i>	
- Burrow pit	Select suitable site



	Avoid new burrow pit
	Back fill as instructed
- Erosion risk	Provide adequate slope 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.
-Storage of construction material	Store toxic wastes and materials in safe place.
<i>Operation phase</i>	
- Public health, road safety, and other negative impacts on the village	Consult community and develop mitigation measures
- 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 and local authorities

Table A5.3: Mitigation Measures for Buildings

Key issues to consider	Mitigation measures
Loss of land ownership	Land use certificate
Disturbance or pollution of water system	Detail study and proper design
Clogging of drainage system	Proper design
Location	
Increase risk of land slide	Proper design and slope protection
Construction	
Unmanaged waste materials with health risks	Provide appropriate waste collection and disposal
Safety	Provide training
Operation	
Unorganized 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

## Appendix 6: Safeguard Screening Forms

### FORM A1: NO IMPACT PROJECT

EPF: LENS2 Subproject application and declaration form

Number .....
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#### Subproject Safeguard Screening

For proposals that will not cause negative impacts on ethnic groups, natural habitats, or physical cultural resources.

Applicant Name	Project Name	
Project Location (Village and NPA)	Total Project Cost	Total Requested

DECLARATION

I.....certify that this subproject does not involve any activities in the Negative Checklist provided in Step 1 of the ESMF. The subproject will also not cause any adverse social or environmental impacts, or negatively effect ethnic groups and therefore does not require preparation and clearance of safeguard mitigation measures.

Screened by.....

Attached

- Proposal

### FORM A2: LOW IMPACT PROJECT

EPF: LENS2 Subproject application and declaration form

Number .....
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#### Subproject Safeguard Screening

For proposals that will involve moderate and localized social or/and environmental impacts. These could be land type conversions, negative impacts on indigenous populations, Physical cultural resources, and natural habitats.

Applicant Name	Project Name	
Project Location (Village and PA)	Total Project Cost	Total Requested

## DECLARATION

I.....certify that this subproject does not involve any activities in the Negative Checklist provided in Step 1 of the ESMF. The subproject will also not cause any adverse social or environmental impacts, or negatively effect ethnic groups. If the subproject involves small scale land acquisition or resource restriction then an abbreviated Resettlement Action Plan (RAP) is required. If minor social and environmental impacts due to civil works are likely then the design will be reviewed to minimize potential impacts and ECOP will be incorporated in the contract to mitigate remaining impacts. Details of possible impacts and mitigations responses are attached.

I have reviewed and completed the Screening Questions for this application.

Screened by .....

Attached

1. Proposal
2. Details of impacts and mitigation
3. Responses to Screening Questions

## Form 1A: Screening Questions for Low Impact Project

Screening questions	No	Unknown	Yes	Proposed mitigation
• Hydrocarbon contamination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Such as soil removal
• Elevated wildlife trafficking potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Such as control barrier
• Localized stream sedimentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Such as planting vegetation
• Localized soil erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Such as contour planting
• Localized habitat loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Such as nursery and plantation
• Localized vegetation fragmentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Such as protection of corridor
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RECOMMEND	Yes	No	Conditional	Additional information requested
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Proposal Submitted by	Approved by
NAME.....	NAME.....
POSITION:.....	POSITION:.....
DATE.....	DATE.....

### FORM A3: MODERATE IMPACT PROJECT

EPF: LENS2 Subproject application and declaration form

Number . . . . .
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#### Subproject Safeguards Screening

For proposals that involve significant habitat conversion, affect natural habitats, or have potential negative environmental impacts that could be mitigated through the proposed measures identified in Appendix 3.

Applicant Name	Project Name	
Project Location (Village and PA)	Total Project Cost	Total Requested

**DECLARATION**  
 I.....certify that this sub-grant does not involve any activities identified in the Negative Checklist in Step 1 of the ESMF.

Screened by .....

Recommendations for proposal improvement before submitting to the Technical Committee or Peer Review:

Prepared with the following Community Members / Partner Organizations:

Attached

1. Proposal
2. Details of impacts and mitigation
3. Responses to Screening Questions

## Form A3: Screening Questions for Moderate Impact Project

Screening questions for major impacts	No	Unknown	Yes	Proposed mitigation
• Elevated wildlife trafficking potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Wide scale sedimentation of streams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Wide scale/long term soil erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Wide scale habitat loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Wide scale vegetation fragmentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Hydrocarbon contamination - water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Elevated fire risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Others				
RECOMMEND	Yes	No	Conditional	Additional information requested
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Proposal Submitted by		Approved by		
NAME.....		NAME.....		
POSITION.....		POSITION.....		
DATE .....		DATE .....		

## Appendix 7: Outline of the Environment and Social Management Plan (ESMP) for a Subproject

<b>1. <u>Introduction</u></b>	
<u>Project Development Objective and Components</u>	Information available in the ESMF
Rational of sub-project within overall Project	Information taken from Sub-project proposal.
Sub-project Objective and main indicators	Information taken from sub-project proposal and sub-project result framework.
Summary of sub-project implementation arrangements	Information taken from Sub-project proposal.
Development Partners and contribution	Describe the source of co-financing if any and whether the co-financiers have agreed to this EMP
<b>2. Summary of Applicable Policy and Legal Framework</b>	
National Policy, Decrees, and Guidelines	Information available in the ESMF
International and Regional Agreements	Information available in the ESMF
<b>3. Environmental Safeguard Policies Triggered by sub-project</b>	
Table of policy triggered	NPA subprojects trigger all the safeguards triggered by the PAW project. Others, are likely to trigger only OP4.01.
<b>4. Description of Environmental Feature of Sub-project site</b>	<i>Much of this information is already available in the initial draft EMPs, at least for NNT and NEPL NPAs.</i>
<u>Biophysical</u> features	Describe the climate, hydrology, landscape, aesthetical features, etc. Provide maps.
<u>Vegetation</u> and natural habitat	Description of ecosystem, vegetation type, species of interests, sensitive areas, status of forest cover, etc. Provide map if available.
<u>Wildlife</u>	Describe the animal diversity, species of special interests (flagship, keystones, etc.), species distribution and abundance if available, etc. Provide maps if available.
Man-made features	Describe the transport system including river access, tourism facilities or structures such as watch towers, cultural heritage features such as stupa and cemeteries... Provide maps if available.
<b>5. Socio economic Status of NPA</b>	<i>Much of this information is already available in the SIA, at least for NNT and NEPL.</i>
<u>Demography</u> , ethnicity,	
Sources of <u>Livelihoods</u> and market linkages	
Education, health, access, utilities, sanitation, etc	
Relation with the NPA and its resources	What is the proportion of revenues from natural sources (including fisheries)

<b>5. External threats to the NPA Environmental and mitigation</b>	<i>These potential impacts are not caused by sub-project implementation activities. They are external threat that the project is helping GoL build capacity to address.</i>
Village consolidation	Refer to the CEF and how this applies here. For NNT refer to the governor restriction. For NEPL, try to obtain a list of village to be consolidated or assurance that no consolidation is planned in the targeted villages.
Road through the NPA	Provide as detailed as possible information about road construction or planned road construction in the NPA (include info on Environment Certificate if any and compliance monitoring by PONRE). Refer to PAW
Hydro, mining and agriculture concessions	Provide as detailed as possible information about existing concession or planned concession (stage, operator, investor, Government contact, time, existence of ESIA, of environment certificate, etc.)
Illegal fish, wildlife and timber harvesting and trade	Provide information on law enforcement strategy & implementation through the project. Refer to the CEF and Conservation Agreements.
Expansion of shifting agriculture	Refer to the CEF and process to prepare and implement the PLUP, CAP and CA.
Undesirable fire	If applicable and relevant, provide information on fire management strategy.
Invasive species	If applicable and relevant, provide information on invasive species management strategy
<b>6. Environment impact due to the project</b>	<i>These potential impacts are caused by sub-project implementation activities listed in the sub-project budget.</i>
Increase patrols	ESMF provides guidance on impact to look for and how to address them.
<u>Infrastructure Developments</u>	Potential impact: Acquisition of land, local impact on site and off site, increased access to natural resources facilitating illegal harvesting
<u>Pesticide Use</u>	as part of CAP, so refer to the CEF here
<u>Physical Cultural Resources</u>	ESMF provides a description of Chance Find procedures. Simply refer to them and create an annex with the procedure. They apply only by “chance” during implementation.
Ecotourism and other NPA-related business development	ESMF provides guidance on impact to look for and how to address them. Refer to the CEF if communities are expected to develop tourism business.
<b>7.Safeguards Implementation and Monitoring</b>	<i>Follow guidance provided in the ESMF and adapt the proposed text to the sub-project and its implementation team.</i>
Safeguards Integration	Mention the SIA and the CEF. The ESMF provides guidance on this.
Safeguards Management and Monitoring	
Management of data collected during the sub-project implementation	Environmental data, spatial data. The sub-project implement (a) occupancy method, (b) satellite

	image monitoring. The ESMF provides guidance on this.
Incident reporting	The ESMF provides guidance on this.
Communication of EMP; consultation and disclosure process	The ESMF provides guidance on this.
Grievance Redress Mechanism	Refer to procedures described in the CEF
Audit and Review	The ESMF provides guidance on this.
Budget for environmental management and monitoring	The budget for preparation and implementation of the ESMP will be part of the subproject cost while safeguard training will be part of EPFO cost.
Impact identification and mitigation forms (infrastructures contracts)	Include form of the ESMF, if necessary, either FORM A1: NO IMPACT PROJECT, FORM A2: LOW IMPACT PROJECT or FORM A3: MODERATE IMPACT PROJECT
Add other annexes as necessary.	

### Specific case of NPA sub-project: NPA DATA TEMPLATE

<b>Data-Information-Maps</b>
<p><b>MAPS</b></p> <ul style="list-style-type: none"> <li>-Map of NPA showing all zones (inside, at NPA boundary, outside but has agriculture land inside, outside but has access inside)</li> <li>-Map showing village locations inside NPA</li> <li>-Map showing villages and main infrastructure 20 km outside NPA</li> <li>-Map of land use, vegetation</li> <li>-Map showing sites of tiger sightings</li> <li>-Map showing location of past forest fires</li> </ul> <p><b>PROFILE</b></p> <ul style="list-style-type: none"> <li>-Full name of NPA</li> <li>-Year of creation</li> <li>-Copy of Management Plan for NPAs.</li> <li>-Total area of landscape</li> <li>-Area in how many provinces</li> <li>-Break up of area in different zones</li> <li>-Geology</li> <li>-Soils</li> <li>-Water sources, rivers, streams</li> <li>-Fisheries</li> <li>-Altitude minimum and maximum</li> <li>-Main vegetation and forest</li> <li>-Main non timber forest products</li> </ul>



- Main rivers and tributaries
- Biodiversity status
- Main threats and challenges

### **POPULATION**

- Population inside NPAs
- Number of households inside NPAs
- Number of families inside NPAs
- Population outside NPAs
- Number of households outside NPAs
- Number of families outside NPAs
- Women, men and children in all the above data
- Education and literacy rates
- Ethnicity of all villages inside and outside NPAs – by population numbers
- Poverty rates inside and outside NPAs
- Access status (roads, dirt tracks etc) inside NPAs
- Health posts and health status
- Any other relevant data

### **LIVELIHOODS AND SOCIAL STRUCTURE**

- Main livelihoods inside and outside NPAs
  - Other Source of Income (selling products, service or works, et)
- Data on level of dependence on natural resources
- Distance to markets
- Farming systems – shifting cultivation, permanent agriculture, agroforestry, others
- Livestock holdings – cattle, small ruminants etc
- Agro or plantation concessions inside NPAs
- Mining concessions inside NPAs
- Any income from remittances and familiarity with traders and markets
- Level of entrepreneurship
- Income from hunting, NTFP collection and sale, opium, and other products
- Food sufficiency levels of households inside NPAs
- Stunting and nutrition level of children
- Village development activities
- Social structure in villages by ethnicity
- Involvement of women in labour, decision making
- Any other relevant data

**WILDLIFE**

- Main wildlife species
- Species on CITES list
- Tiger numbers, sightings, trend
- Poaching incidents record
- Convictions from poaching incidents
- Wildlife trading locations such as local markets and community markets
- Habitat quality
- Threats
- Livelihoods and personal consumptions that dependent on wildlife
- Patrols, SMART status
- Capacity, resources
- Best practice examples of community based conservation if any
- Other relevant data, reports

**INSTITUTIONS**

- List of projects financed by bilateral, multi lateral, INGOs, and NGOs in NPAs. Provide titles of projects, objective, funding, years of operation
- Community based organisations inside and outside NPAs
- Grievance redress mechanisms – formal and traditional used by communities
- Involvement of women in institutions

**ENVIRONMENT AND HABITAT**

- Any data or reports on overall environment and habitat issues
- Threats to habitat
- Pesticide use inside NPAs
- Any data or studies on water quality, discharge levels
- Any data or reports on changes in the watershed
- Any data or reports on deforestation in the NPAs

**OVERLAPS**

- List of existing and planned hydropower, mining concessions, agriculture concessions, roads, transmission lines, SEZ, and other infrastructure in provinces of Houaphanh, Luangprabang, Xiangkhouang, Khammouane, and Bholikhamxay
- Map showing above overlaps
- Map of mining resources in Lao PDR
- Any other relevant maps

**REGIONAL ISSUES**

- Length of international border with Vietnam
- Access to Vietnam – is it easy to cross the border? Altitude, dirt tracks, valleys
- Products and commodities in cross border movement – timber, wood products, non timber forest

products, wildlife, wildlife skin, wildlife products, drugs, opium, human trafficking, others?

- Are there mechanisms for collaboration between Lao PDR and Vietnam to address cross border issues. Is this effective?
- Describe cross border threats to NPAs
- What are opportunities for cooperation to address unauthorized cross border movement of products.

## Appendix 8: Pest Management Plan (PMP)

### A8.1 Project Background

1. **LENS2:** The Second Lao Environment and Social Project (LENS2) aims *help strengthen selected environmental protection management systems, specifically for protected areas conservation, enforcement of wildlife laws and environmental assessment management*. The activities will be implemented through the 3 existing EPF specialized windows: PICE (Policy Implementation and Capacity Enhancement); and CBI (Community and Biodiversity Investments). Eight project provinces have been selected including Khammouane (KM), Savannakhet (SVK); Houaphanh (HP), Xiengkhuang (XK), Vientiane Province (VTP), Xasamboun (XSB), Bolikhamxay (BLKX), and Loang Phabang (LPB). The EPF Office (EPFO) will be the implementing agency responsible for administering, managing, and monitoring the implementation while the beneficiaries (called the Subproject Delivery Agency or SDA) could be GOL agencies, provincial and local authorities, local communities, research institutes, mass organization, or non-government organizations (NGOs).

2. **Safeguards Triggered:** To be eligible for World Bank (WB) financing, it is necessary to ensure that the activities to be implemented under LENS2 will not create adverse impacts on the local environment and local population. Of the ten WB safeguards policy, eight are triggered including Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Indigenous Peoples (Ethnic Minorities) (OP/BP 4.10), Involuntary Resettlement (OP/BP 4.12), Physical Cultural Resources (OP/BP 4.11), Pest Management OP/BP 4.09, and Projects on International Waterways OP/BP 7.50.

3. This document is the simplified Pest Management Plan (PMP) prepared in responding to OP/BP 4.09. It aims to provide basic knowledge to the national, provincial and district government, the LENS2 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 LENS2 project activity implementation and fully integrated into the sub-project selection, approval, implementation, and monitoring and evaluation process. The PMP describes key issues related to procurement and use of pesticide and chemical fertilizer and identifies mitigation measures related to prohibited items, training, and guidelines related to safe use of pesticides. The PMP will be applicable for all LENS2 activity related to subprojects related to the purchase/use of agriculture chemicals. The simplified PMP will be implemented along with other safeguard instruments developed for LENS2 such as the Environment and Social Management Framework (ESMF), and the Community Engagement Framework (CEF).

4. **Responsible Agency:** The EPFO safeguard coordinator and/or officers will be responsible for ensuring effective implementation of the PMP in close consultation with the WB safeguard specialist. Performance will be included in the project progress report.

### A8.2 Legal and Institutional Frameworks

5. **WB's safeguard policy on pest management (OP 4.09):** 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 project will not support procurement and use of pesticide and/or chemical fertilizer; however, the OP 4.09 was triggered as there may be minor use of pesticide especially in non NPA areas that are adjacent to NPAs in activities related to livelihood development that could have potential pesticide and/or chemical fertilizer use by the community.

6. While the project will not procure and promote use of chemical pesticides and fertilizers, which are included in the *negative* list (see below), it may be unrealistic to completely prevent all farmers from applying chemical inputs. Specifically 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 responsible agencies will apply the Conservation Agricultural Technology approved by Ministry of Agriculture and Forestry (MAF) in 2006 for the agricultural activities.

7. ***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 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.

### A8.3 Issues and Actions

8. ***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. Negative impacts from the use of pesticide and chemical fertilizer 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 practicing by many farmers, however, it is important for LENS2 staff and local communities to understand the nature of activity which could possibly encourage people to reduce the use pesticide and chemical fertilizer. Implementation of sub-projects related to livelihood development, rehabilitation and improvement of small irrigation may indirectly involve the use of pesticides and or chemical fertilizer.

9. ***Actions for mitigation:*** As mentioned, the negative impacts from the use of pesticide and chemical fertilizer from PAW activities would be minor and localized and could be mitigated during the planning and implementation of the project. During the CEF consultation stage, there are also opportunities to enhance positive impact during the planning and selection of the sub-projects. Activities to be carried out during the planning and implementation of LENS2 project on pest management are summarized below:

- (a) *Prohibition.* To avoid adverse impacts due to pesticides, procurement of large pesticides will be prohibited and this has been included in the “*negative list*”.
- (b) *Staff training.* Specific components will provide basic knowledge on alternative options for livelihood activities, including safe use of pesticides and other toxic chemicals. Budget would be allocated for project staff training to understand i) overall policy on Pest Management (government and Bank policy); ii) basic knowledge on possibly negative impact on environmental and health from the use of pesticide and chemical fertilizer; and iii) 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 use of fertilizer, pesticides, and/or toxic chemicals in sub-projects.
- (c) Provide knowledge to farmers. Prior consultation would be provided to project communities. Pest management will be included as one topic for village consultation meetings. 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 farmers on prohibited types of pesticide, the negative impacts 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 to use these. Farmers will also be informed that, the GoL does not intend to support the use of any pesticide and chemical fertilizer in any agricultural productivity but aims to promote conservation agriculture instead. The procurement of pesticide and chemical fertilizer will not be necessarily funded under the project budget; however any subproject villages that get support for livelihood activity 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 has learnt from its neighbouring countries. PAW will train the target farmers on Lao PDR Regulation No 2860/MAF on Pesticide Management before the sub-project can be implemented and subject to compliance with the Bank safeguard policy OP 4.09 on Pest Management.
- *Technical training:* This training would aim to provide the target farmers to understand clearly the technical aspect of pesticide and skills in using them such as what are the eligible and prohibited items of pesticide in Lao PDR, 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 use etc. The trainer would be knowledgeable on this and the subproject 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 LENS2 is fully a responsibility of the subproject owners (SPO). The SPO should strictly follow Articles 18 and 19 of MAF Regulation No 2860/MAF for procuring all 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 agency or user may refer in addition to the Article 25 and 26 for storage and usage of pesticide.

10. **Promotion of non-chemical agriculture.** LENS2 project has been designed to promote conservation of natural resources. Given that most of the project villages are located in remote area, in and adjacent to protected areas, sustainable use of natural resources would be critical for their livelihood development and poverty reduction. As protected areas or critical natural habitats are located nearby, it is necessary to take specific measures to minimize potential negative impacts and/or enhance positive impacts through the community participation process. In this context, a “conservation agriculture technique” should be introduced for target communities and included in the CEF process. During the planning process, action will be carried out to plan and train farmers.

#### **A8.4 Implementation Arrangements and Budget**

11. Below highlights the implementation arrangement:

- (a) *Planning and implementation:* The SDA will be responsible for providing training to staff at province and local level during the consultation and planning stage. Budget for training will be included in the sub-project cost or capacity building as appropriate.
- (c) *Monitoring:* The project team will monitor the use of pesticide in target community including: i) ensure the procured pesticide is not in the banned list provided in Annexure 2: ii) ensure procured pesticides are stored and transported properly; iii) ensure training

delivery to the user before distribution; and iv) monitor compliance usage of pesticide according to the MAF's Regulation No 2860/MAF (See Annexure 1). The World Bank and the PAW team will carry out a joint Implementation Support Mission every six months to review 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.

#### A8.5 List of eligible and banned Pesticide in Lao PDR. May 2010

Table A8.1: 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 dimethylammonium	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%	KhumPleum	Insecticide	Thai	EPA IV
9	Abamectin	1.8%	Countdown	Insecticide	Thai	EPA IV
10	Abamectin	1.8%-3.6%-5%	DIBAMEC®1.8EC-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+55 g/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 Oxyclozide	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%	Sec saigon 5 EC	Insecticide	Vietnam	WHO II
65	Cypermethrine	50%	Secsaigon 50 EC	Insecticide	Vietnam	WHO II
66	Cyst-Forming protozoan	200,000-500,000	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	Fosetylaluminium	80%	KanAeng	Fungicide	Thai	WHO U
85	Fosetylaluminium	80%	Alpine 80 WP; 80 WDG	Fungicide	Vietnam	WHO U
86	Fosetylaluminium	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 regulator	Thai	
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%	Luavang 20 WP	Fungicide	Vietnam	WHO III
103	Isoxaflutole	75%	Balance	Herbicide	Thai	EPA III
104	LamdaCyhalothrin	2,5 %	Vovinam	Insecticide	Vietnam	WHO II
105	Magnesium Phosphide	66%	MAGTOXIN	Fumigant	Germany	EPA 1
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	Pacecilomyceslilacinus	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%	Chemfleetsandagarid	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	Fungicides	Others
<ol style="list-style-type: none"> <li>1. Aldrin</li> <li>2. BHC</li> <li>3. Chlordane</li> <li>4. Chlordimeform</li> <li>5. Chlorfenvinphos</li> <li>6. Chlorthiophos</li> <li>7. Cyhexatine</li> <li>8. DDT</li> <li>9. Dieldrin</li> <li>10. Dimefox</li> <li>11. Dinitroresol</li> <li>12. Demeton</li> <li>13. Endrin</li> <li>14. Endosulfan</li> <li>15. Ethyl Parathion</li> <li>16. EPN</li> <li>17. Heptachlor</li> <li>18. Hexachloro cyclohexane</li> <li>19. Leptophos</li> <li>20. Lindane</li> <li>21. Methamidophos</li> <li>22. Methomyl</li> <li>23. Methyl parathion</li> <li>24. Monocrotophos</li> <li>25. Polychlorocamphene</li> <li>26. Phorate</li> <li>27. Schradan</li> <li>28. TEPP</li> <li>29. Toxaphene</li> </ol>	<ol style="list-style-type: none"> <li>1. Binapacryl</li> <li>2. Captafol</li> <li>3. Cycloheximide</li> <li>4. Mercury and mercury compounds</li> <li>5. MEMC</li> <li>6. PMA</li> <li>7. Selenium compound</li> </ol> <b>Rodenticides</b> <ol style="list-style-type: none"> <li>1. Chlorobenzilate</li> <li>2. Sodium fluoasetate</li> </ol> <b>Herbicides</b> <ol style="list-style-type: none"> <li>1. 2,4,5 -T</li> <li>2. Dinoseb</li> <li>3. Dinoterb acetate / Dinitrobutyphenol</li> <li>4. Paraquat</li> <li>5. Sodium chlorate</li> </ol> <b>Fumigants</b> <ol style="list-style-type: none"> <li>10. EDB</li> <li>11. Ethylene oxide</li> <li>12. Methyl bromide</li> </ol>	<ol style="list-style-type: none"> <li>1. Arsenic compound</li> <li>2. Calciumarsenate - Herbicide, rodenticide, molluscicide, insecticide</li> <li>3. DBCP - Nematocidide</li> <li>4. Daminozide - Plant growth regulators</li> <li>5. Fluoroacetamide - Insecticide, rodenticide</li> <li>6. Oxamyl - Insecticide, acaricide, termiticide</li> <li>7. Phosphamidon - Insecticide, nematocidide</li> <li>8. SodiumArsenite - Insecticide, fungicide, herbicide, rodenticide</li> <li>9. Thallium ( i ) sulfate) - Rodenticide, insecticide</li> </ol>

## Appendix 9: Interim Guidelines on the Application of Safeguard Policies to Technical Assistance

Operations Policy and Country Services: Operational Risk Management (OPSOR)	Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank <sup>28</sup>  <i>(This note is for guidance only and is not a complete treatment for the subject, for which please refer to the relevant OP/BPs.)</i>	Environmental and International Law Unit (LEGEN)
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### Background

1. The purpose of this note is to provide guidance to Bank staff on applying safeguard policies to TA in Bank-financed projects. All TA activities in Bank assisted projects, irrespective of their sources of financing and whether they are stand-alone or as part of an investment operation, should be reviewed for their potential environmental and social implications, risk and impacts and therefore, subject to Bank safeguard policies when applicable. Hence, the Bank is responsible for the screening; environmental categorization and the selection of safeguard instruments of each proposed TA activity. These decisions are not always straightforward and involve professional judgment on a case-by-case basis. This note is intended to help in making this professional judgment.

### Typology of TA Activities

2. TA activities come in a wide range of forms. The screening and environmental categorization of TA therefore requires a thorough understanding of the type of TA that is proposed. For purposes of this guidance note TA activities are grouped into following four major types<sup>29</sup>:

*Type 1:* Strengthening client capacity

*Type 2:* Assisting in formulation of policies, programs, plans, strategies or legal frameworks etc.

*Type 3:* Land use planning or natural resources management (NRM)

*Type 4:* Preparing feasibility studies, technical designs or other activities directly in support of the preparation of a future investment project (whether or not funded by the Bank).

### Environmental and Social Implications of TA Activities

3. Most TA activities themselves do not have direct adverse environmental or social impacts. Nevertheless, the outcomes of TA support may have significant environmental and social implications going forward, entailing risks and potentially inducing adverse impacts. The following three questions can be used to facilitate the understanding of these implications and guide the initial screening of proposed TA activities:

**Question 1:** Will the TA lead to the completion of technical or engineering designs, or other outputs in preparation for the construction of physical infrastructure or for the implementation of other activities with potentially significant physical impacts<sup>30</sup>?

**Question 2:** Will the TA support the drafting of policies, strategies, laws and/or regulations, which are likely to have environmental and social impacts when implemented through future programs or projects?

<sup>28</sup>This note builds on “2007 Guidelines for Environmental Screening and Classification” and “2010 Interim Guidance Note on Land Use Planning”. To address potential environmental and social implications of development policy lending, please refer to OP/BP 8.60 on “Development Policy Lending”. The information provided in this document should also be used by Bank Staff to help guide them in preparing and conducting Reimbursable Advisory Services.

<sup>29</sup> For projects that are funded by Forest Carbon Partnership Facility (FCPF), teams should also be aware that their preparation processes have to conform to Guidelines for Processing FCPF Readiness Operations in Regions.

<sup>30</sup> Examples might include installation of new equipment without physical infrastructure, or removal of old environmentally sensitive equipment.

**Question 3:** Will the TA establish, or support the formulation of resource or land use plans that may have potential social and environmental impacts?

**Question 4:** Will the TA involve the design and/or provision of capacity building to support institutions in carrying out activities that have potentially significant social and environmental impacts?

4. In all four cases, the potential environmental and social implications of Bank-supported TA may be significant, but may differ in terms of directness, specificity and timing. For TA activities described by Question 1, environmental and social concerns are mostly associated with specific subsequent physical investments. TA activities falling under Questions 2, 3 and 4 may have more diffuse and induced impacts, often playing out over a longer term. These variations suggest the importance of carefully tailoring the safeguards response to the circumstances of each TA situation, as discussed below.

### **Environmental Category**

5. Each TA component must be evaluated on its own merits to determine its environmental category and triggering of safeguard policies. TA components should not automatically be classified as C, and should instead be classified as category A, B or C using the same criteria applied to any other investment operations.
6. The EA category of the entire proposed project shall be determined by the project component (including the TA component, if any) with the most serious adverse impacts, risks or implications. The Task Team (TT) needs to make decisions on this matter with the concurrence of the Regional Safeguard Advisor (RSA) based on the environmental and social screening of proposed project activities, including TA components. If required LEG, through LEGEN is available to assist.

### **A Set of Guiding Principles to Define Safeguards Requirements**

7. The application of a certain safeguard policy in connection with Bank TA support does not necessarily mean that the exact instrument and the scope set out in such policy will be required. It is necessary to adapt such requirements to the specific circumstances and adjust the scope and contents in proportion to the magnitude and significance of potential impacts. In many TA situations, for example, the nature of potential environmental and social impacts will only come into focus as the TA itself is carried out. In such cases, a thorough analysis of environmental and social impacts and an appropriately detailed approach for mitigating those impacts may be considered an *output* of the project, rather than a *pre-requisite*. Hence, it will be neither possible nor appropriate to prepare conventional instruments (EA, RAP, IPP etc.) prior to appraisal. Rather, by appraisal, there should be an agreement with the client on the need and process to address environmental or social issues associated with the results of the TA. While existing safeguards instruments may be found appropriate depending on the circumstance, such an agreement might take the form of an agreed TOR for future analytical work to be carried out during implementation or an environmental and social management framework (ESMF) or some other appropriate approach.
8. Recognizing that there are a variety of TA activities with varying degrees of environmental and social implications, it is essential to follow a consistent approach to application of safeguard policies. In this context and depending on the nature of the TA activity, the following guiding principles or concepts which are already embedded within our safeguard policies, become relevant:
  - (a) Integrate environmental and social objectives into the TA process. One of the most significant challenges facing standalone TA activities is that they are essentially \*process-oriented projects\* involving planning, objective setting, alternatives analysis, cost benefits assessments, technical designs, consensus building, etc. These activities often provide a significant opportunity to integrate environmental and social objectives as an integral part of the planning process.

- (b) Promote transparency through stakeholder participation and public information disclosure. Since many TA projects promote improved planning, this provides an excellent opportunity to promote broad stakeholder engagement and participation. As appropriate, strategic planning initiatives could include focus groups, citizen consultations, expert panels, public hearings, etc. at all critical phases of the TA;
- (c) Promote use of innovative environmental and social assessments such as SEA. TA studies supporting policies, plans and programs are ideally suited to apply new and innovative techniques of strategic environmental and social analysis. The Bank has an emerging body of case experience and has supported numerous training activities and many of our clients now have legislative requirements for conducting SEA on plans, policies and programs;
- (d) Promote systematic and comprehensive analysis of alternatives. Where TA supports the development of specific investment plans, such as for large scale infrastructure, TA studies should be used to meaningfully explore alternatives at various levels, including assessing the relative impacts of those alternatives. Such alternatives analysis could be explicit in an SEA or could be carried out as part of other master planning or strategic studies or as part of the policy specific instruments such as EA and or RAP; and
- (e) Promote environmental and social capacity building and institutional strengthening. TA projects can provide an opportunity to build counterpart capacity for integrating environmental and social concerns into their work. This could be done through support (in the form of policy strengthening, training, and support for operations, technical standards setting, monitoring and reporting etc.) to line ministries or to PMU and other government/non-government agencies with strong interest in environmental and social analysis.

### **Safeguards Requirements Prior to Appraisal**

9. Many TA activities support a process of planning, objective setting, alternatives analysis, technical feasibility analysis, preparation of policies and programs etc. It may not always be feasible or appropriate, therefore, to prepare typical safeguard instruments (e.g., EA, RAP, IPP, Policy Frameworks etc.) prior to appraisal. Depending on the nature of the activity, detailed analytical instruments may need to be deferred until the implementation period itself.
10. Nevertheless, in virtually all cases it will be possible to prepare some level of analysis of potential environmental and social issues related to the proposed TA. Such an analysis or brief should be based on an issues scoping exercise involving stakeholder participation of a type appropriate to the nature and scale of the proposed TA. In most cases it would also be possible to develop detailed TOR for studies or components of studies, which would be used to evaluate various environmental or social issues of importance.
11. Since TA projects can take many forms, there is a range of safeguards instruments, which could be appropriate to document the range of issues and actions agreed with the client to manage those issues. For example, in Type 4 TA, in the case of *detailed technical design*, it may be an intended output of the TA to prepare a suite of Bank policy-compliant safeguard instruments for the eventual investment (whether or not funded by the Bank). In such cases, an Environmental and Social Management Framework (ESMF) by appraisal would be appropriate, describing the process and timing of preparing relevant safeguard instruments during project implementation, specifying the requirements for consultation and disclosure of these instruments, and setting forth the institutional arrangements. If applicable, ToRs for environmental and social studies, communication strategies, and safeguard specialists can be attached to the ESMF. By contrast, in the case of TA in support of *feasibility studies*, it may be premature to prepare a full suite of safeguard instruments. Instead, it may be appropriate to ensure that TORs for the studies are agreed with the client to ensure that relevant environmental and social issues are taken into account in conducting the studies in a manner that reflects the principles of Bank safeguards.
12. In other TA contexts, possible pre-appraisal instruments could include any one or more of the following:

- a. Safeguards issues brief / Discussion note / Scoping paper as an Annex in the PAD
- b. A draft TOR to incorporate environmental and social objectives into the proposed studies or policy or program formulation
- c. Draft TOR for Strategic Environmental and Social Assessments (SESA)
- d. Draft TOR for safeguards instruments to be prepared during project implementation
- e. Stakeholder consultation and strategic communications plan
- f. Counterpart Institutional or Capacity Assessments (including reviews of country systems)
- g. Relevant safeguards instruments prescribed in applicable policies, when appropriate

13. In summary, during project preparation and appraisal of TA projects it should be possible to: develop an understanding of the likely environmental and social issues which will need to be addressed by the proposed project; review available literature and strategic publications prepared by the counterpart agency or agencies involved; consult with concerned stakeholders; document stakeholder participation and the agreed scope of work or actions to be undertaken during implementation; and publicly disclose such information in accordance with the Bank guidelines.

### **Supervision and Additional Comments**

14. The Bank does not hold responsibility after the closure of the TA if the counterpart decides to obtain financing from sources other than the Bank, apply national standards and/or other donors' policies to the projects that were prepared under the TA financed by the Bank, or projects that arise from the program/plan prepared with Bank TA. However, there may still be reputational risks concerning the implementation of these safeguard instruments, which need to be presented in project documents (e.g., ISDS, PAD) and Board paper, along with proposed risk mitigation measures such as continued opportunities for consultations, communication strategies, supporting transparent decision making processes etc.

15. Finally any closely related activities carried out during the execution of the TA will also need to be scrutinized through a safeguards lens. In some cases, for example, the client may decide to carry out some preparatory investment activities such as site clearance or construction of access roads or office buildings or housing etc., during the implementation of the Bank assisted TA. In such cases, the Task Team is responsible to ensure that these preparatory activities are also in compliance with applicable Bank safeguards policies. It will need to conduct an initial screening based on site visits and determine the kind and scope of applicable safeguard instruments that are needed to address its potential impacts.

### **Legal Documents**

16. While the Bank expects the borrower to commit to implementing the recommendations of the studies carried out under the TA<sup>31</sup>, the obligation to implement such recommendations are only binding if implementation is part of the project description or specific obligations are included to that effect. Nonetheless, the quality of the safeguards instruments or other safeguard-relevant documentation prepared during the implementation of the TA must be satisfactory to the Bank.

17. If the project includes TA but *not* the implementation of its recommendations, it is critical that the PAD and the corresponding legal documentation make such circumstances clear. In some cases it is recommended not only to define in these documents the activities to be financed by the Bank but also clarify which activities are *not* financed by the Bank.

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<sup>31</sup>See paragraph 8(c) of OP 8.40 of Technical Assistance.