

SFG3142



Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Mekong Integrated Water Resource Management Project
Additional Financing (M-IWRMP-AF)

ENVIRONMENTAL AND SOCIAL
MANAGEMENT FRAMEWORK
(ESMF)

March 9, 2017

PREFACE

This Environmental and Social Management Framework (ESMF) for Lao PDR will be applied to all investments to be financed by the World Bank for technical and/or financial support from the Mekong Integrated Water Resource Management – Additional Financing (M-IWRM-AF) Project.

The national Project Management Units (PMU) of the Department of Water Resources (DWR), under the Ministry of Natural Resources and Environment (MONRE), is responsible for overall coordination of Lao PDR activities. The respective Project Implementing Units (CMUs) of the Department of Livestock and Fisheries (DLF) and the Department of Irrigation (DOI) of the Ministry of Agriculture and Forestry (MAF) are responsible for implementation of specific subcomponent and for ensuring compliance with the EGPF, including keeping proper documentation in the project file for possible review by the World Bank.

This document is considered a living document and could be modified and changed in line with the changing situation or scope of the activities. Close consultation with the World Bank and clearance of the revised ESMF will be necessary.

Mekong Integrated Water Resource Management Additional Financing (M-IWRM-AF) Project

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- A Compensation and Resettlement Policy Framework
- B Ethnic Group Planning Framework
- C Guidelines Rural Infrastructure; Alternative Livelihood and Fishery Management

List of Abbreviations and Acronyms

AF	Additional financing	KM	Khammouane Province
ARAP	Abbreviated Resettlement Action Plan	Lao PDR	Lao's People Democratic Republic
ATP	Attapeu	LMB	Lower Mekong Basin
BKX	Bolikhamxay Province	MAF	Ministry of Agriculture and Forestry
CAR	Compensation and resettlement	M-IWRM	Mekong Integrated Water Resources Management
CMU	Component Management Unit	M-IWRM-AF	Mekong Integrated Water Resources Management Additional Financing
CPS	Champassak	MONRE	Ministry of Natural Resources and Environment
CRPF	Compensation and Resettlement Policy Framework	MRC	Mekong River Commission
DLF	Department of Livestock and Fisheries (of MAF)	NREI	Natural Resources and Environment Institute (of MONRE)
DMH	Department of Meteorology and Hydrology	OP/BP	Operational policy/Bank procedure
DOI	Department of Irrigation (of MAF)	PA	Protected Area
DONRE	District Office of Natural Resources and Environment	PAP	Project affected peoples
DWR	Department of Water Resources (of MONRE)	PCR	Physical Cultural Resources
ECOP	Environmental Code of Practice	PFA	Protection Forest Area
EG	Ethnic Group	PMU	Project Management Unit
EGDP	Ethnic Groups Development Plan	PONRE	Provincial Office of Natural Resource and Environment
EGPF	Ethnic Group Planning Framework	Ramsar	Convention on Wetlands
EIA	Environmental Impact Assessment	SVK	Savannakhet Province
EPF	Environmental Protection Fund	USD or \$	United States Dollar
EPL	Environmental Protection Law	UXO	Unexploded ordnance
ESIA	Environmental and Social Impacts Assessment	VTC	Vientiane Capital
ESMF	Environmental and Social Management Framework	VTP	Vientiane Province
EMP	Environmental Management Plan	WB	The World Bank
Gold	Government of Lao PDR	XBF	Xe Bang Fai
GRC	Grievance Redress Committee	XBH	Xe Bang Hieng
GRM	Grievance Redress Mechanism	XCP	Xe Champhone area
IEE	Initial Environmental Examination	XK	Xekong Province
IWRM	Integrated Water Resources Management		

I. Introduction

1. On 8 February 2012, the World Bank (WB) approved the Mekong Integrated Water Resources Management Phase 1 project for Lao PDR (the original project or M-IWRM)¹. The original project was designed to help Lao PDR establish a modern water resources management system. Component 1 of the original project is implemented by the Mekong River Commission (MRC), while Components 2 and 3 are implemented by the Government of Lao PDR through the Ministry of Natural Resources and Environment (MONRE)². The budget for Lao PDR of the original project is USD18 million and the project area covers Xe Bang Fai (XBF), Xe Bang Hieng (XBH), and Xekong basins as well as the Mekong Mainstream near Lao PDR and Cambodia border, lower part of Nam Ngum, and Xedone. The implementing agencies include the Department of Water Resources (DWR), the Natural Resources and Environment Institute (NREI), and the Department of Meteorology and Hydrology (DMH) of the Ministry of Natural Resource and Environment (MONRE) and the Department of Irrigation (DOI) and the Department of Fisheries (DOF) of the Ministry of Agriculture and Forestry (MAF).

2. Although significant progress has been made under the original project, additional financing is required to cover financing short-falls³ and help Lao PDR consolidate and expand the development of its water resource management system. The estimated amount of Additional Financing to be provided to the Project is on the order US\$25 million. According to the Natural Resources and Environment Strategy 2025 (NRES) which outlines MONRE's vision, aims, and strategy and an action plan for 2016-2020, MONRE will require significant support in order to strengthen institutional structures and technical capacity to effectively implement the NRES. It is expected that a new Water Law will be passed in 2017, which will provide MONRE with the legal authority to take a more proactive and authoritative role in management of the nation's water and related resources.

3. The Environmental and Social Management Framework (ESMF) is prepared for the M-IWRM Additional Financing project (AF, M-IWRM-AF, or the Project) and it is in line with the WB's safeguard policy on environmental assessment (OP/BP 4.01). The AF will support the shortfall of the original project as well as deepening capacity building of key agencies at national level (Component 2) and basin level focusing on IWRM application (Component 3) in XBF and XBH. Similar to the original project, the updated ESMF has been designed to minimize adverse environmental and social impacts that may occur during implementation of the AF taken into account the experience during the implementation of the original project. The ESMF describes how safeguards issues will be dealt with by outlining (i) types of activities that will not be supported by the project using the "negative list" (see

¹ The Project is part of the Mekong Integrated Water Resources Management (IWRM) Series of Projects which consists of three associated projects: Mekong IWRM Phase 1 Project (Lao PDR); Mekong IWRM Phase 2 Project (Vietnam); and Mekong IWRM Phase 3 Project (Cambodia). The overall objective of the Mekong IWRM series of projects (SOP) is "to establish examples of improved integrated water resource management practices in the Lower Mekong Basin".

² MONRE was established in 2011-2012. This is the first time natural resources management was consolidated under a single ministry.

³ Due to the increased costs for works and equipment of activities as well as lost due to currency exchanged during the past 5 years.

Annex 1); (ii) steps of safeguard screening and assessment to identify potential safeguard issues (social and environment), including specific procedures and documentations and opportunity to enhance positive impacts; (iii) describes specific safeguards procedures and mitigation measures for activities that may create with environmental and/or social impacts; and (iv) outlining institutional and monitoring arrangements. Specific procedures and/or guidelines to mitigate potential environmental impacts are included as annexes to this ESMF while those related to social aspect as required by the World Bank’s safeguard policy on Indigenous Peoples (OP/BP4.12) and Involuntary Resettlement (OP/BP4.10) are prepared as a standalone document but considered as part of this ESMF.

4. Sections below briefly describe the AF description (Section II), focusing on those that may trigger World Bank’s safeguard policies; policy, legal, and institutional frameworks (Section III); key issues and mitigation actions including the environment and social background (Section IV); safeguard screening and management process (Section V) including implementation arrangement; grievance redress mechanism (Section VI); and consultation and information disclosure (Section VII).

II. Project Description

5. The government of the Lao PDR has requested Additional Financing (AF) in the amount of approximately US \$25 million for the Mekong Integrated Water Resources Management Phase 1 Project. Component 1 of the project is implemented by the Mekong River Commission (MRC), while Components 2 and 3 are implemented by the Government of Lao PDR. The AF will support the expansion of activities under Components 2 and 3 of the Project. Hereafter, the term “Project” will only refer to components implemented by the Lao PDR.

6. The World Bank approved the original US \$18 million Project on February 8, 2012. The Project is part of the Mekong Integrated Water Resources Management (IWRM) series of projects consisting of: Mekong IWRM Phase 1 Project (Lao PDR); Mekong IWRM Phase 2 Project (Vietnam); and Mekong IWRM Phase 3 Project (Cambodia). The overall objective of the Mekong IWRM series of projects is “to establish examples of improved integrated water resource management practices in the Lower Mekong Basin.”

7. Rationale for Additional Financing: The Project was designed to help the Lao PDR establish a modern water resources management system. In 2011, the Lao PDR created the Ministry of Natural Resources and Environment (MONRE) – the first time natural resources management was consolidated under a single ministry. In early 2016, MONRE presented the Natural Resources and Environment Strategy 2025 (NRES) which outlines MONRE’s vision, aims, and strategy and an action plan for 2016-2020. MONRE will require significant support, some of which will be provided through the proposed AF activities, in order to strengthen institutional structures and technical capacity to effectively implement the NRES. It is expected that a new Water Law will be passed in 2017, which will provide MONRE with the legal authority to take a more proactive and authoritative role in management of the nation’s water and related resources.

8. Significant progress has been made under the Project, however additional financing is required to cover funding short-falls and expand the scope under the Project. The following sections present the status of current activities under the Project and the proposed activities moving forward with AF financing.

Component 2: National Water Resources Management Scale up activities to strengthen institutional and technical capacity for IWRM especially through:

2.1 Support for refining a legal framework enabling integrated water resources management including updating the current Water Resources Law which is currently in an advanced stage, developing priority implementing regulations and supporting their implementation. The draft Water Law is programmed to be presented to the National Assembly in 2017. MONRE intends to further develop draft priority implementation regulations (or guidelines in the case the Law is not revised) including: i) information and data management; ii) river basin management and water allocation; iii) water use certificates; iv) wastewater discharge management; v) drought management and response; vi) flood management and mitigation; vii) groundwater management; and viii) wetland management.

2.2 Support for Water Quality and Eco-System Health: The implementing agency for this sub-component is MONRE's Natural Resources and Environment Institute (NREI). The construction of a new national water quality laboratory financed under the project will be completed in late 2016, and NREI had conducted initial water quality sampling in the Xekong, Xai Bang Hieng, and Nam Ngum basins. Additional financing will support the completion of the NREI laboratory building, purchase of essential laboratory equipment, and fund the start-up of water quality monitoring program.

2.3 Support for Water Resources Modelling and Assessment: This component is implemented by NREI in support of MONRE. The Project has supported the development of basic rainfall-runoff, basin simulation, and hydro-dynamic/flood water resource models for the Xai Bang Fai, Xai Bang Hieng, Xekong, and Xedong. Additional financing will extend this modelling effort into the 10 priority river basins in the Lao PDR, prepare water resource assessments in all 10 priority basins, and develop a National Water Resources Information and Data System.

2.4 Support for Hydrological and Meteorological (Hydro-Met) Network Upgrading: This component is implemented by MONRE's Department of Meteorology and Hydrology (DMH). The Project has financed the construction of National Early Warning Center and provincial DMH offices, and the expansion of hydro-met stations in the Xekong and Xedong basins. With additional financing DMH will expand its hydro-met monitoring stations in the northern part of the country.

2.5 Project Management: MONRE will continue to be the responsible Ministry for the Project and will support the implement of the Project by providing overall project administration and oversight utilizing its existing structures as outlined the updated Project Operations Manual. The Ministry of Agriculture, Forestry, and Rural

Development (MAFFRD) will continue to be responsible for implementing Component 3.1.2 (Irrigation) and Component 3.2 (Fisheries).

Component 3: Improved Floodplain and Aquatic Resource Management: The objectives are to: (i) support sustainable river basin and floodplain management by balancing ecological and community livelihood interests with water resource development goals; and (ii) fisheries co-management in key spawning and feeding habitats of regional significance.

3.1.1 River Basin Management: This component is implemented by MONRE’s Department of Water Resources. The Project has supported stake-holder driven water resource management exercises in the Xai Bang Fai and the Xai Bang Hieng basins including formulating river basin profiles and action plans for groundwater management in Xai Bang Fai and wetland management in Xai Bang Hieng. With additional financing, the Project will intensify its activities in these two basins and expand into the Nam Ngum and Nam Ngiep river basins. The scope of river basin planning and management activities will include groundwater, floods and droughts, water allocations and minimum flows, water infrastructure investment planning, capacity building, and stakeholder engagement.

3.1.2 Sustainable Irrigation and Drainage: As a complement to the river basin management activities in the Xai Bang Fai and Xai Bang Hieng basins, the MAF’s Department of Irrigation is implementing a series of upgrades to existing small-scale irrigation systems which involve: constructing fish-friendly gates; modernizing existing infrastructure through improved pumping stations and canal distribution systems; working with local farmer groups to establish water user groups and production “user groups;” and promoting sustainable rice intensification (SRI). Additional financing will focus on the XBF basin located primarily in Khammouane Province with one district in Savannakhet Province. The upgraded area will increase from 50% to 75% of the total “target command area” of approximately 30,000 hectares in the XBF and XBH river basins.

3.2 Fisheries Management: This subcomponent is providing support for improved management of critical habitats for aquatic resources in the southern Lao provinces of Pakse and Champasak. The Project includes support for: (i) establishing community-managed fisheries management organizations; (ii) developing local fishery management plans; (iii) supporting alternative livelihood activities to reduce reliance on capture fisheries; (iv) supporting small-scale village level infrastructure to enhance economic opportunities; and (v) developing the capacity of the provincial and national fishery agencies. These activities will continue under the Project, and AF will be provided to help cover current funding shortfalls.

9. The Project area will be similar to the original project covering the following river basins: Xe Bang Fai (XBF), Xe Bang Hieng (XBH), Nam Ngiep and Nam Ngum. This will involve majority of 9 provinces located in the central and southern parts of the country i.e. Xieng Khouang (XK), Xaysomboun (XSB), Vientiane (VTP), Bolikhamxay (BKX),

Savannakhet (SVK), Salavanh (SLV), Attapue (ATP), and Champassak (CPS). Background and locations of these basins are briefly presented in Annex 5.

III. Policy, Legal, and Institutional Frameworks

3.1 WB’s Safeguard Policy Applicable for the AF

10. Similar to the original project, per OP/BP 4.01, the AF has been assigned as EA Category "B" and out of the ten WB safeguard policies, the following six policies are triggered: *Environmental Assessment (OP/BP 4.01)*; *Pest Management (OP/BP 4.09)*; *Indigenous Peoples (OP/BP 4.10)*; *Involuntary Resettlement (OP/BP 4.12)*; *Natural Habitats (OP/BP 4.04)* and *International waterways (OP/BP 7.50)*. To comply with these policies, given that not all the AF activities could be identified during appraisal, specific safeguard instruments were identified in Table 1. Key issues and mitigation measures are discussed below and the actions to be carried out during the implementation of the AF are summarized in Section IV.

Table 1. List of WB safeguard policies triggered for the Project

	WB Safeguard Policies	Triggered	Safeguard instruments
1	Environmental Assessment OP/BP 4.01	Yes	ESMF/ECOP/ EMP/ESIA
2	Natural Habitats OP/BP 4.04	Yes	ESMF/ECOP/ EMP/ESIA
3	Forests OP/BP 4.36	No	
4	Pest Management OP/BP 4.09	Yes	Simplified pest management plan
5	Physical Cultural Resources OP/BP 4.11	No	--
6	Indigenous Peoples OP/BP 4.10	Yes	EGPF/EGDP
7	Involuntary Resettlement OP/BP 4.12	Yes	CRPF/RAP/ARAP
8	Safety of Dams OP/BP 4.37	No	-
9	Projects on International Waterways OP/BP 7.50	Yes	WB, on behalf of the Lao PDR government, notified the MRC and the Myanmar and Chinese governments.
10	Projects in Disputed Areas OP/BP 7.60	No	

11. *Environmental Assessment OP/BP 4.01*: Prior to the approval of the Project by the World Bank in 2012, MONRE conducted an “Initial Environmental and Social Examination” (IESE) for the whole project. The project-level IESE was prepared, consulted, and disclosed in 2010 and formed the basis for the Environmental and Social Management Framework (ESMF) which was also originally prepared, consulted, and disclosed in 2010. The 2010 IEE and ESMF confirmed that the Project will not involve any major civil works (e.g. Category A) and/or generate any significant adverse impacts on the local environment and people. Components 2 and 3 activities involve small works related to construction of

small office building/renovation, construction of small hydro-met stations, rehabilitation of small irrigation schemes and flood gates, and other small infrastructure. Since the AF will finance works of the same nature, scale, and location as the on-going project the conclusion that there will no significant adverse impacts on local people is still valid. The ESMF has updated with the new project description incorporating the AF activities, and has been consulted and disclosed in late 2016 and re-disclosed in early 2017 with some minor editorial modifications.

12. *Environmental Management of Works Contracts:* Project 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; this will be ensured through the application of “negative list” which is presented in Annex 1 the ESMF. The Components 2 and 3 activities may involve small works related to construction of office building/renovation, construction of hydro-met stations, rehabilitation of small irrigation schemes and flood gates, and other small-scale infrastructure. Environmental impacts for small-scale works will be managed primarily through an Environmental Code of Practice (ECOPs) which is included as Annex 2 of the ESMF, and will be attached to all small-scale civil works contracts.

13. In the unlikely event that the proposed works generate significant environmental impacts, the Project Management Unit (PMU) and the responsible Component Management Unit (CMU) will consult with the World Bank and the Lao PDR authorities to determine appropriate steps. The Lao PDR government has clear screening criteria to determine if a proposed project is subject to a full “Environmental Impact Assessment” (EIA) which is approved at the national level; or whether the proposed project is subject to only an Initial Environmental Examination (IEE) which is approved at the provincial level. The PMU will also discuss with the Bank to determine the necessary level of environmental assessment. If the impacts are moderate in nature, then an Environmental Management Plan (EMP) will be prepared for review and no-objection; the appropriate provisions in the EMP will be attached to civil works contract. If the impacts are larger, then a Category B level Environmental and Social Impact Assessment (ESIA) will be prepared and subject to the World Bank’s no objection. It is important to emphasize that no subprojects reaching the EISA threshold are expected under the Project, but the ESMF still contains provisions to address in this unlikely event.

14. *Safeguard Management Related to Technical Assistance:* The AF includes a significant scale-up of technical assistance activities under Component 3.1.1 to support river basin planning in at least four priority river basins: Xai Bang Fai, Xai Bang Hieng, Nam Ngum, and Nam Thiep. The project will thus utilize the World Bank’s “Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank” (See Annex 7). The project directly supports activities related to Type 3 TA categories: “Land use planning or natural resources management (NRM).” The safeguard policies will be applied by ensuring that: i) environmental and social objectives are integrated into the planning process; ii) transparency will be promoted through stakeholder participation and public information disclosure; iii) innovative environmental and social assessments will be encouraged; iv) there will be systematic and comprehensive analysis of alternatives; and v) there will be environmental

and social capacity building and institutional strengthening. These five principles will be included in the terms of reference for the consulting firm supporting the river basin planning activities, and their application will be monitored by the World Bank team.

15. *UXO*: Risk due to unexploded ordnance (UXO) is considered high in rural area (especially in the upper watershed) in the Project provinces (VTP, XSB, BKX, KM, SVK, SLV, CPS, ATP, SK). As part of the overall consultation process and initial screening process, a rapid assessment will be carried out with the communities to identify possible UXOs, their locations and potential safety risk. If a safety risk is present, the AF project staff will contact the government agency responsible for UXO clearance⁴ and request for assistance in developing a simple plan to clear the UXO. Only after the actual clearance the AF will provide support for the proposed activity.

16. *Natural Habitats (OP/BP 4.04)*: Project works are of a small scale, and clearance of natural habitats is on the negative list. However, given that all subproject locations are still not known and some activities may be located in a Protected Area (PA) or other critical habitats, this policy is triggered. Potential negative impacts on critical natural habitats will be mitigated during the safeguard screening and the preparation of EMP/ESIA if required.

17. *Ramsar sites*: Implementation of Component 3.1.1 involves a Ramsar site located in Xe Champone, Savannakhet province, which lies within the Xe Bang Fai basin. One of the original objectives of the project was to prepare a “management plan” for the Xe Champone wetland. However, in 2016 the Global Environment facility provided US\$4.7 million through the Food and Agriculture Organization (FAO) to MONRE to protect Lao wetlands from climate change in both Xe Champone in Savannakhet province and Beung Kiat Ngong in Champassak province. The GEF project will assess the vulnerability of the wetlands and the surrounding agricultural areas to climate change, and then support the local communities to develop approaches that protect the wetlands from the effects of extreme weather events that arise, while also developing their agricultural livelihoods in sustainable ways. The river basin planning activities under the Component 3.1.1 will therefore focus on ensuring there are sufficient environmental flows generated in the basin to sustain the Xe Champone wetland, and allow the GEF-supported activity to take the lead in developing the wetland management plan around Xe Champone wetland.

18. *Pest Management*: The Project does not involve procurement and/or use of pesticides and procurement of large pesticides has been included in the “*negative list*”. However, implementation of Component 3 (3.1 and 3.2) involves the rehabilitation of community irrigation scheme and may increase the pesticides and fertilizer usages. The AF will provide training to key staff and farmers on integrated pest management and other options, and monitoring. Under the original project Component 3.1.2, efforts are made to promote the

⁴ The Lao National Unexploded Ordnance Program (UXO Lao) was established by Prime Minister’s Decree #49 dated 13 February 1996 with the support of UNDP, UNICEF, and other stakeholders. UXO Lao is a project of National Execution and a department under the Ministry of Labor and Social Welfare. The organization is the responsibility of the UXO Lao National Program Director who directly reports to the Minister of Labor and Social Welfare. Its mandate is to reduce the number of casualties caused by unexploded ordnance, and increase the amount of land available for food production and other socio-economic development activities. The organization works in nine of the most heavily UXO impacted provinces in the country.

concept of integrated pest management (IPM) such as application of System of Rice Intensification (SRI) and other appropriate technology to avoid and/or reduce the use of agrochemicals. The ESMF has incorporated a simplified pest management plan⁵ to ensure that farmers are aware of Government regulations and use the chemicals safely and when/as needed. This approach will be applied to all activities related to irrigation development to be carried out under the AF.

19. *Involuntary Resettlement OP/BP 4.12*: The Project will not involve physical relocation or compensation of large number of affected population and these prohibitions are included in “*the negative list*” of Annex 1 in the ESMF. The policy is triggered because the Project may involve land acquisition, most probably voluntary in nature, as part of village development infrastructure under Component 3. The Compensation and Resettlement Policy Framework (CRPF) has been prepared describing policies and procedures to avoid, minimize or mitigate negative impacts that may result from the Project investments. The CRPF includes the scope of an abbreviated resettlement action plan (ARAP) which will be prepared if small-scale voluntary or involuntary land acquisition occurs. WB approval of the ARAP will be required before any work commences. Annex 2 of the CRPF includes a “Social Screening Checklist Form” which identifies any social impacts associated with a proposed activity, including land acquisition, social impacts, vulnerable groups, presence of ethnic groups, and a determination of whether an ARAP or Ethnic Minority Plan (EMP) is required.

20. *Resource Access Restriction*: Component 3.2, Fisheries management, involves the co-management on fisheries by local communities through the development and implementation of Fishery Management Plans (FMP). The FMP may restrict access to resources, notably through efforts to enforce national laws or local regulations in protected and/or conservation areas. In the event the FMP involves restrictions to fishing grounds, the provisions of the CRPF will apply. For the preparation of the FMP, consultation and participation will be conducted and as an outcome of the participatory process. Village Resource Use Agreement (referred to as “Kum Ban Fishing Regulation” in the Lao terminology) will be prepared and agreed by the community. The principles and procedures for a developing Village Resource Use Agreement are specified in the CRPF and conform with the World Bank’s safeguard principles related to resource access restriction. The objective of any potential access restrictions is to improve sustainable yield of local fisheries and thus benefits the entire community. Under the Fisheries component the Project also provides support for alternative livelihood activities in order to provide more diverse sources of income and rural infrastructure in order to improve the quality of life and economic opportunities.

21. *Indigenous Peoples OP/BP 4.10*: There are many ethnic minorities groups, particularly in the highlands, who are known in Lao PDR as ethnic groups and meet eligibility criteria under OP/BP 4.10. For example, there are Hmong, Khmu, Mien, Makong, Bru and others are living in and around the project area. These are considered to be 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 project activities on these communities is generally positive, however, any negative impacts that may occur are addressed under the Ethnic Groups Planning Framework (EGPF).

⁵ The simplified pest management plan is similar to that of the original project.

22. *Guideline Manuals*: During the course of project implementation, it became apparent that it was necessary to have specific guidelines to help structure the implementation of small-scale rural infrastructure, alternative livelihoods, and fisheries management activities. Guidelines were necessary to help properly structure and document the community engagement process—including with ethnic minorities, and also to have clear rules for which types of works were eligible, procurement processes, and reporting. In 2016 the following documents were prepared by the Project and reviewed by the Bank: i) Rural Infrastructure Guidelines for the river basin planning component (Component 3.1.1); ii) Rural Infrastructure Guidelines for Fisheries Management (Component 3.2); and iii) Alternative Livelihoods Support Activities (Component 3.2). In addition, the Project has prepared a “Fishery Co-Management Guidelines” which guide the preparation of fishery management plans. These Guidelines have been translated into the Lao language, and used as training and reference materials for project implementers and beneficiaries; all of these guidelines are consistent with the requirements of the social and environmental safeguards instruments.

23. The main elements required in the EGPF have been integrated into the Guidelines and this considered to be the most efficient manner to integrate social safeguard concerns in practical manner into project design and implementation. The Guidelines have been translated into the Lao language, and are currently being utilized at the local level. The Guidelines, provide specific guidance on how to ensure participation of ethnic minority groups in compliance with the EGPF. The project is expected to provide overwhelming positive benefits for ethnic minority groups, and free prior and informed consultation will continue throughout project implementation.

24. *Projects on International Waterways (OP/BP 7.50)*: The Project triggers OP7.50 Projects on International Waterways, as it includes rehabilitation of small-scale irrigation and flood control infrastructure on tributaries to the Mekong River. The upper riparian countries of China and Myanmar were notified on September 30, 2010 by the World Bank on behalf of the Lao PDR. The MRC approved the overall Mekong IWRM program, including the Phase 1 Project, in 2009. The governments of China and Myanmar, and the MRC were notified of the proposed additional financing operation on December 15, 2016 by the World Bank on behalf of the Lao PDR. In the World Bank’s assessment, the proposed investments would not adversely affect the flow, quantity, and quality of the Mekong River’s waters. As of February 17, 2017 there have no responses, except for the government of Myanmar which voiced its agreement with the Project.

25. *Safety of Dams OP/BP 4.37*: This policy is not triggered as the Project does not finance any works directly or indirectly related to new or existing dams. None of the Project-financed infrastructure relies upon water from a reservoir, nor would the failure of any dam have an impact on the Project-financed infrastructure. The irrigation schemes that are rehabilitated under Component 3.1.2 do not rely on water provided from a reservoir. These are small schemes located next to natural rivers that pump water from the river banks. All of the schemes are located in the flood plains in Khammoune and Savannakhet provinces where the natural flows exceed the irrigation water requirements throughout the year, and there is no need to rely on upstream reservoirs. Likewise, the rehabilitation of flood control

structures under Component 3.1.2 are located in the same flood plain areas, and there are no linkages with any dams.

26. *Forests OP 4.36*: The Project does not trigger this policy as it does not have an impact on quality of forests, affect the welfare of people depending on forests, nor aim to change the management of forests. For the river basin planning activities under Component 3.1.1 all land uses will be taken into account, including urban areas, agricultural areas, forested areas, etc, in relationship to their impact on the hydrological cycle, including flows and quality. The project will not finance any specific plans related to watershed/forestry management that would trigger this policy.

27. The AF activities will be small and will not affect any historical and/or cultural property and *Physical Cultural Resources (PCR) (OP/BP 4.11)* will not be triggered, however, a “*chance find*” procedures has also been included in the simplified ECOP. The AF will not involve any dam, logging and/or destruction of forest, and/or disputed area therefore the Safety of Dams (OP/BP 4.37), the Forestry (OP/BP 4.36), and the Projects in Disputed Areas (OP/BP 7.60) will not be triggered.

28. *Gender*: During preparation of the AF, attention has also been given to encourage women to play an active role in the consultation process. During implementation effort will be continued to make sure that women are: (a) consulted and their concerns will be addressed; (b) consulted and trained on chosen livelihoods that would restore their income and improve their living standards, (c) given the opportunity to represent the community groups meetings, focused-group discussions, planning and implementation, and (d) represented equally in the Grievance and Redress Committees (GRCs) (see Section VI).

3.2 National policy, legal, and institutional frameworks

29. 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 are being revised. The Environmental Protection Law (EPL) established in 1999 and revised in 2012, describes the principles, regulations and measures for managing, monitoring, restoring, and protecting the environment including the pollution control and the impact assessment processes, especially the Environment and Social Impact Assessment (ESIA) and an Initial Environmental Examination (IEE) regulations which are established in late 2013. A number of decrees, regulations, and guidelines have also been established and applied during 2000’s. MONRE is the lead ministry responsible for implementation of the EPL and its regulations and/or guidelines (see more details in [Annex 4](#)).

30. Given the small nature of Project activities and/or subproject, it is unlikely that the Project will trigger the Government regulation on the IEE preparation. However, the ESMF has been sent to the Provincial Office of Natural Resources and Environment (PONREs) for information. Moreover, under Component 3.1.1, PONRE is a key player in the IWRM process and river basin organization and actively involves in the planning, implementation, and/or supervision/monitoring of the AF activities

IV. Key Safeguard Issues and Mitigation Measures

4.1 Environmental and Social Background

31. Lao PDR is a small and mountainous country and rich in forestry, water resources, biodiversity and ethnic culture. To move out from the least developed countries by year 2020, the Government of Lao PDR (GOL) has implemented many development activities through public investment such as roads as well as the private investment in hydropower and mining. XBF, XBH, Sekong, and Nam Ngum are large river basins in Lao PDR while Sedone and Nam Ngiep are much smaller, however, there are many development activities especially hydropower, mining, agriculture, industries, and urban in these basins which require effective management of water resources. Given that water is critical for well being of local people as well as for development of the country while water availability varies greatly with time and space, involves more than 1 administrative boundary, and serves more than 1 water user, effective water resources management will depend on how well decisions and actions could be made to maximize the benefits of water uses as well as maintain proper conditions for other water uses. This section briefly presents the nature of water resources uses in the Project basins while the key features and environmental and social background of Lao PDR and the Project provinces are provided in *Annex 5*.

Box 1: Area, population, and related provinces of key river basins in Lao PDR --						
No	Basins	Total area (km ²)	Population	Mean annual rainfall (mm)	Mean annual discharge (m ³ /sac)	Provinces involved in the basin
1	Nam Ou	24,422	374,826	1,400	498	PSL+UDX+LPB
2	Nam Tha	8,911	162,698	2,800	346	HP+XK_LPB
3	Nam Khan	7,490	116,097	1,360	115	HP?
4	Nam Ngum	16,986	572,616	2,040	724	VTP, VTC, XK, LPB (minor)
5	Nam Xouang	6,577	86,055	1,242	131	
6	Nam Ngiep	4,577	59,420	2,736	248	KX/XSB, VTP, BKX,
7	Nam Theun-Nam Kading	14, 813	114,194	2,500	546	BKX+KM+XK (minor)
8	XBF	10,344	280,839	2,300	523	KM+SVK
9	XBH	19,220	519,335	1,500	577	SVK +SV (minor)
10	Sedone	7,220	435,824	2,000	183	SLV+CPS
11	Sekong	22,550	257,987	2,149	879	SK+ATP+CPS
12	Nam Ma	12,532	No data	1,980	194	
13	Nam Neun	9,173	nd	nd	nd	

32. *XBF and XBH:* These two large basins are located in the central part of Lao PDR and cover major parts of Khammouan (KM) and Savannakhet (SVK) provinces. Due to large amount of water flow from high terrain along the Vietnam border (the Anamite Range) to the Mekong River during wet season, flash flood and river bank erosion has been one of the key issues causing damages to living conditions of local people and their livelihoods. During rainy season, lower part of XBF and XBH also suffered from backwater flood from the Mekong River. These floodplains also serve as important ground for fisheries migration from the lower Mekong and efforts are being made under the M-IWRM project (Component 3.1.2) to rehabilitate existing irrigation canals and flood gates that are designed to accommodate fish migration and the activities are expected to be expanded with the AF support. Consultation with local peoples suggested that addressing flooding issues is priority for lower XBF where additional water (about 330 m³/day) have been discharged into the lower part from Nam Theun 2 hydropower project starting 2010. Development of small water supply system is considered priority for the upland area. There is also a Ramsar site in XCP wetland while the area is suffered from human encroachment, filling up of wetland area, river bank erosion, water quality, and competing water uses during dry season. There are also plans to develop large scale irrigation in these two areas. Induced development (industries, urbanization, roads, agriculture, etc.) has also been rapid during the past 5 years causing significant change in land use and increasing pressure on water resources available in the areas. There are also plan to build hydropower upstream of XBF. XBH is the largest basin in Lao PDR and covers most of Savannakhet province which is the second largest city with rapid development on industries and agriculture. Lower part of XBH is a wetland considered important as a Ramsar Site (Xe Champhone) and land and water uses conflict including water quality issues related to pesticides. A wetland management plan has been developed and priority activity are being implemented. There is also plan to build hydropower project upstream of XBH as well as a dam for irrigation development near the lower part.

33. *Sekong and Sedone:* are located in the southern part of the country. Sekong (22,550 km²) drains water from the Anamite range along Vietnam border and flow through Attapeu and Champassak to Cambodia before joining the Mekong River as part of the Cambodia 3S basin. There are ongoing hydropower projects under operations as well as many more under planning and /or construction. The basin is also suffered from mining activities and natural disaster and promotion of comanagement of fisheries and monitoring of water quality and ecological health are being undertaken with M-IWRM support including the AF. *Sedone* (7,220km²) is located next to XBF to the south and cover part of Salavanh (SLV) and Champassak (CPS). Water drain from upperland to the Mekong and agriculture is the major land use. There are 2 hydropower under operations in the basin and several more are under plan.

34. *Nam Ngiep and Nam Ngum:* These 2 basins are located in the upper part of the central area and there are many hydropower projects under operations as well as under planning. Nam Ngiep (4,577 km²) covers part of BKX, VTE, and XSB and agriculture is the major land use. Nam Ngum is a large basins (16,986km²) covers part of VTP, VTC, XK, and minor part of LPB while Nam Ngum reservoir in the lower part is famous for tourism and recreation and is the major source for water supply for Vientiane Capital (VTC). In Nam

Ngum reservoir, there are also cage fish raising and there are issues related to fish killed and conflicts in water uses both during dry season and rainy season.

4.2 Key Issues and Proposed Mitigations

35. **Potential impacts:** Similar to the original project, the AF activities will be limited to technical assistance, rehabilitation/construction of small buildings and/or hatcheries, and village investments for small infrastructures to be selected through active consultation with local communities. The overall impacts of the AF will be positive. Potential negative impacts during implementation will be small and can be mitigated through the mitigation measures proposed and being applied for the original project.

36. **Safeguard implementation experience** of the original project confirmed that potential negative impacts of Component 2 activities will be limited to the civil works which is small and can be mitigated through the application of the ECOP being used under the original project. Potential impacts of Component 3 activities are likely to be positive in general since the activities are identified by communities through the participatory planning process while the ECOP will be applied when works contract is involved. However there were some weakness in consultation record keeping for Components 3.1.1 and 3.2. Nonetheless, to ensure effective planning and mitigation of small investment for these four guidelines were prepared during the implementation of the original project and submitted to WB (Please see Attachment C for these Guidelines). These guidelines are: (a) Component 3.1.1 Small Rural Infrastructure Investment Guidelines (WB approved on 03 June 2016); (b) Component 3.2: Rural Infrastructure (WB approved on 27 May 2016); (c) Component 3.2: Alternative Livelihood Support (WB approved on 22 July 2016). In addition, the Project has prepared a “Fishery Co-Management Guidelines” which guide the preparation of fishery management plans. These guidelines will be applied during the implementation of the AF. The specific safeguard experience to-date b component is presented below.

37. The project is in the fourth year of implementation, and to date safeguard implementation is considered satisfactory. The PMU has contracted an international consultant familiar with the Lao PDR and the World Bank safeguard policies to provide overall supervision of safeguards implementation. In addition, the components which have physical works, including: 2.4 Hydro-Meteorology; 3.1.1-River Basin Management; 3.1.2-Irrigation and Drainage; and 3.2 Fisheries Management, have a designated focal point for Safeguards who has been trained in the application of the safeguard instruments to their specific components. Local government staff at the provincial level who assisting in project implementation have also been trained in safeguards management. The experience to-date related to safeguards and expected activities under the AF are presented below.

38. **Component 2.4: Hydro-Meteorology:** The component financed the construction of 25 hydro-meteorology stations in the southern part of Laos. As indicated in ESMF mitigation measures the hydro-met stations only require the use of ECOPs, and a site specific EMP is not required. Each of the 25 hydro-met stations have undertaken documented site-specific social screening. As result of the screening process, it was identified that all of the stations were located on public land, and there was no land acquisition (voluntary or involuntary) or

social impacts. The component also constructed a new building in the existing Department of Hydro-Meteorology compound in the Vientiane and the ECOPs were applied in the construction contract. Under the AF, an additional 35 hydro-met stations will be constructed in the northern part of the country and will follow the same procedures.

39. Component 3.1.1: River Basin Management: The main focus of this component under the AF is to develop river basin management plans in four priority basis: i) Xebangfai; ii) Xebanghiang, iii) Nam Ngum and iv) Nam Ngiep. World Bank Safeguard instruments and procedures will continue to be taken into account in Technical Assistance activities related to the formulation of the plans, including an explicit reference to safeguards in the TOR of the consulting firm that will help prepare these plans. Special measures will be taken to ensure that ethnic minority groups are included in the planning process, and the principles applied: i) environmental and social objectives are integrated into the planning process; ii) transparency will be promoted through stakeholder participation and public information disclosure, including free prior and informed consultation with relevant ethnic groups; iii) innovative environmental and social assessments will be encouraged; iv) there will be systematic and comprehensive analysis of alternatives; and v) there will be environmental and social capacity building and institutional strengthening.

40. This component also includes minor works projects. To-date there have been 8 small community level projects (all less than \$10,000) implemented in Khammoune and Savanakheth provinces, such flood refuge building, small water supply systems, latrines, etc. The projects were implemented directly by the communities and there were no civil works contracts. For each community project, the Project provided the construction materials, and the community implemented the works under the supervision of the local Provincial Natural Resources and Environment (PONRE) project officer. Each community selected their respective projects following an extensive and well documented consultation process. Under the AF, the safeguard procedures under the Small Rural Infrastructure Guidelines which contains the social and environmental safeguards provisions, including screening process will followed for any new projects.

41. Sub-Component 3.1.2: Irrigation and Drainage: Forty small-scale irrigation schemes (average 150 has), and 10 medium-sized flood gates (approximately \$100,000 each) were rehabilitated in Khammoune and Savanakheth provinces. As noted in the ESMF mitigation measures due to the small scale of the projects, only the ECOPs were applied and there were no EMPs prepared. The irrigation rehabilitation projects were constructed by the local communities following ECOP principles. The flood control gates were constructed by local contractors and the ECOPs were included in the contracts. The works activities were supervised by the local project engineer who is also the designated environmental safeguard person for the component. For each of the irrigation and flood control rehabilitation projects social screening was undertaken and documented. There were no land acquisition (voluntary or involuntary) or negative social impacts in any of the projects. Under the AF, an additional 19 irrigation schemes and 5 flood control gates will be constructed and the same procedures will be followed.

42. An Ethnic Group Development Plan (EGDP) was produced in January 2015 for this sub-component. The EGDP identified the major ethnic groups in the two target provinces—Laoloum (mainstream) and Makong (minority), and laid out the guidelines for more detailed consultations with communities. Of the 40 selected projects, only one project included an ethnic minority community, the Makong. In this one rehabilitation project, the Makong community (composed of 68 households) is the project beneficiary, participated in the project design, and directly implemented the project. Under AF, based on a documented screening process there are no ethnic minority groups in any of the 19 irrigation sub-project sites.

43. Subcomponent 3.2 Fisheries Management: The fishery component lagged behind the rest of the Project in terms of implementation. At the mid-term review stage in January 2016, it was determined that due to the complexity of the component, specific guidelines needed to be developed for this component to help them apply the key safeguard instruments: i) ESMF, ii) CRPF; iii) EGPF. The social and the environmental requirements for this component are unique and inter-related.

44. Following the steps outlined in in the Community Fishery Guidelines, a comprehensive socio-economic survey of the beneficiary communities has been conducted. The project is targeting 15 Kum Bans, which are clusters of villages. The number of villages in each Kum Ban ranges from 3 to 14, and village size typically ranges from 100-150 households per village. Seven of the Kum Bans do not have ethnic minority groups; the other eight Kum Bans have varying degrees of ethnic minorities with variations between villages within a Kum Ban.

45. For rural infrastructure investments, there are to-date 61 small community projects (approximately \$5,000 per village), such rehabilitation of schools, village offices, village road improvements, latrines. The selection of projects are based on consultations with the communities, and implemented by the community, with the Project providing the construction material. A Rural Project Engineer hired the project acts the environmental focal person and ensure that the ECOPs are applied in each project. Each project has also undergone social screening which has been documented. The local District Agriculture and Forestry Office (DAFO) has a designated social safeguard focal point. Under the AF, the safeguard procedures under the Fisheries Rural Infrastructure Guidelines which contains the social and environmental safeguards provisions of the approved safeguards instruments will followed for any new projects.

46. For alternative livelihoods, only goods have been provided and thus there has no construction activities. These goods include rice seeds, chickens, animal vaccinations, etc. The selection of goods has done through a consultative manner in accordance with the Alternative Livelihoods Guidelines.

47. The development of Fishery Management Plans (FMP) for each Kum Ban are in still in progress. Important to highlight that for the preparation of FMP consultation and participation, including free prior and informed consultation, is practiced in every case. In the event the FMP involves restrictions to fishing grounds, the provisions of the CRPF for

restriction of access will apply; followed by consultation and participation of all affected communities; the main outcome of this process will be a participatory Village Resource Use Agreement (referred to as Kum Ban Fishing Regulation in the Lao terminology) demonstrating village acceptance of FMP. The objective of the FMP is to improve sustainable yield of local fisheries and thus benefits the entire community. In the event, there is a potential for ethnic minority group in the project area, free prior and informed consultation will be followed and the preparation of an Ethnic Action Plan will be developed to avoid, minimize, mitigate, or compensate for any adverse effects.

48. The component also finances the rehabilitation of three existing hatcheries, and the construction of a new hatchery in Attepeu province in southern Laos. These hatcheries are financed under the Parent Project and the design started in 2015. The contracts for the rehabilitation of the three hatcheries have been awarded and as required in the ESMF mitigation measures, the ECOPs are included in the works contracts. For the new fish hatchery, environmental requirements are guided by the ESMF. The design of Attepeu hatchery has been completed, and the World Bank has requested the Project to prepare an Environmental Management Plan (EMP) which is scheduled to be completed by mid-2017. The Attepeu fish hatchery will be built on an identified public plot of land and there are no land acquisition issues; screening has been conducted by the safeguards focal points to ensure that there are no adverse social impacts for local communities. The Lao Department of Environmental Standards and Impact Assessment (DESIA) will review the draft Attepeu hatchery EMP and make a determination on whether the project also needs to be processed through the Lao environmental review process.

49. **Proposed mitigation measures.** *Table 2* below summarizes scope of the AF activities and their potential negative impacts and proposed mitigation measures to be carried out during the implementation of the AF. All the potential negative impacts will be identified and mitigated through the screening and mitigation process described in Section V.

Table 2: Summary of key issues and proposed mitigation measures for the AF

Component & Scope	Potential Negative Impacts	Mitigations
<i>Component 2: National Water Resources Management.</i>		
2.1 Revision of water law	None	Consultation with key stakeholders
2.2 Water quality laboratory and monitoring of ecological health (lower Nam Ngum, Sekong, XBF, XBH, and Sedone)	Wastes (solid and liquid) from laboratory operations and safety of staff	Ensure laboratory is ISO accredited which requires safety and dangerous substance disposal procedures.
2.3 Water resources modelling (ten basins)	None	No actions required.
2.4 Support for hydromet (more stations in Sekong and Sedone)	Minor impacts due to construction of small hydromet stations	Apply “Social Screening Checklist Form” and include ECOPs in construction contracts.
2.5 Project Management Unit (PMU)	None	Responsible for providing consolidated safeguard management reports on a semi-

		annual basis.
Component 3: Improved Floodplain and Aquatic Resource Management:		
3.1.1 River Basin Management		
3.1.1 (a) Scale up the river basin management planing and organization, including small community investments in four river basins: XBH, XBF, Nam Ngum, and Nam Niep.	<p>*May cause minor impacts on local environment during site clearance and/or operation of the activities. Risk due to UXO</p> <p>*May involve small land compensation and/or EG.</p> <p>*River basin planning activities may have indirect safeguard implications.</p>	<p>Apply “Social Screening Checklist Form” and include ECOPs in construction contracts.</p> <p>Follow the Small Rural Infrastructure Investment Guidelines to ensure compliance with CRPF and EGPF.</p> <p>Utilize the World Bank’s “Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank” (January 2014). See Annex</p>
3.1.2 Sustainable Irrigation and Drainage		
Continue with the rehabilitation of small irrigation systems and flood gates in XBF basin.	<p>*May cause minor impacts on local environment during site clearance and/or operation of the activities.</p> <p>*May affect fish migration and spawning.</p> <p>*May result in increased use of agro-chemicals,</p> <p>*May involve small land compensation, and/ or EG.</p>	<p>Apply “Social Screening Checklist Form” and include ECOPs in construction contracts.</p> <p>Apply similar flood-gate design which is considered as fish-friendly and monitor the potential impact similar to that being done under the original project.</p> <p>*Through water user associations (WUA), provide knowledge on government regulation on agrochemicals, safe application of agro-chemical and how to apply IPM technology (organic farming, SRI, etc.) (see <i>Annex 3</i>).</p>
3.2 Fisheries Management		
(a) Construction of one (1) New Hatchery in Attapeu and rehabilitation of hatcheries: Two (2) in	Minor impacts during construction and possible impacts on introduction of invasion species	Apply “Social Screening Checklist Form” and include ECOPs in construction contracts for hatchery rehabilitation. Prepare an Environmental Management Plan for WB clearance for the Attapeu

Champassak and one (1) in Sekong (b) Rehabilitation and Improvement of Small Infrastructure in Khum Ban level	during operations	hatchery; consult with Lao environmental authorities to confirm if there are any Lao environmental procedures Apply the Rural Investment Guidelines to ensure compliance with EGPF and CRPF
(c) Implementation of community co-management (Sekong and Champassak near Lao-Cambodia border)	May have some impacts due to restriction of resources uses	Apply the Community Fishery Guidelines to ensure compliance with EGPF and CRPF. Prepare Village Resource Use Agreement if there are access restrictions issues. If necessary, prepare an Ethnic Action Plan if there any adverse impacts to avoid, minimize, mitigate, or compensate for any adverse effects.
(d) Alternative Livelihood Support. This involves the provision of small goods, such as rice seeds, chickens, animal vaccinations, etc	May create community tension in the selection of which households to support and the type of support received.	Follow the Guideline for Component 3.2 on Alternative Livelihood Support.

50. The World Bank (WB) has categorized the M-IWRM as a ‘*Category B*’ project and out of the ten safeguard policies, six policies are triggered: *Environmental Assessment (OP 4.01)*; *Pest Management (OP 4.09)*; *Indigenous Peoples (OP 4.10)*; *Involuntary Resettlement (OP 4.12)*; *Natural Habitats (OP 4.04)* and *International waterways (OP7.50)*. Given the project’s objective and scope, it is anticipated that M-IWRM activities will not cause serious negative environment and/or social impacts. Below summarizes key issues and actions to be undertaken during the implementation of M-IWRM.

51. **Impacts due to civil works:** Any investment activity/subprojects that involves construction work or changes to land or water use has the potential to generate negative environmental impacts. Project activities identified by appraisal suggested that the activities related to civil works would be limited to construction of small building (Component 2) and rehabilitation/construction of floodgates, village-based infrastructure such as roads, water supply, hatcheries, etc. (Component 3). Negative impacts due to these small-scale construction activities will be minimized through the application of good engineering practices/housekeeping that could reduce dust, noise, and waste generations as well as by keeping nearby communities informed. Medium-scale construction, or any other activity expected to produce modest, local environmental impacts which may be identified during project implementation will follow the safeguard screening procedures described in Section IV below. If an Initial Environmental Examination (IEE) is required by the Government’s EIA regulation, the project will prepare appropriate documents and submit for government approval. Any large scale activities that require a full Environmental Impact Assessment

(EIA) by the Government EIA regulation will not be allowed and this is included in the “*negative list*” (*Annex I*).

52. **UXO.** Moreover, in some rural areas in the Khammouane, Savanakhet, Champassak, Attapeu and Sekong provinces there may be a safety risk of unexploded ordnance (UXO). Lao PDR was subjected to heavy bombing during the Indochina war, resulting in large areas of land ridden with dangerous UXO throughout many parts of the country. UXO is a critical impediment to agricultural development and land utilization. As part of the overall consultation process and initial screening process, a rapid assessment will be carried out with the communities to identify possible UXOs, their locations and potential safety risk. If a safety risk is present, the project staff will contact the government agency responsible for UXO clearance⁶ and request for assistance in developing a simple plan to clear the UXO. Only after the actual clearance the Project will provide support for the proposed activity.

53. **Pest Management:** Implementation of Component 3 (Subcomponents 3-1 and 3-2) would involve rehabilitation of community irrigation scheme and may increase the pesticides and fertilizer usages. The M-IWRM will prohibit procurement of large pesticides using the “*negative list*”, provide training to key staff and farmers on integrated pest management and other options, and monitoring. In compliance with the WB Pest Management Safeguard Policy (OP 4.09), a simplified Pest Management Plan (Error! Reference source not found.) has been prepared and it will be applied to activities/subprojects involve irrigation scheme.

54. **Ethnic Groups:** Implementation of Component 3 (Subcomponents 3-1 and 3-2) will involve ethnic groups. The Project will follow the key principles of the WB's policy concerning ethnic minorities (OP/BP 4.10 on Indigenous Peoples), which are to “ensure that indigenous peoples do not suffer adverse impacts during the development process,” and that they receive “culturally compatible social and economic benefits.” Ethnic minorities, or “*Ethnic Groups*” as used for the M-IWRM, includes ethnic groups in Lao PDR, such as the Mon-Khmer, Hmong-Mien, Sino-Tibetan and Tai-upland ethno-linguistic groups. An Ethnic Groups Planning Framework (EGPF) has been prepared as a standalone document to provide guidance on consultation and mitigation measures when ethnic groups are involved.

55. **Land Acquisition:** The Project will not involve resettlement or large amount of land acquisition, but may require small amount of land for the community infrastructure and/or community fisheries. Resettlement and demolition of houses and business will not be allowed and this has been included in the “*negative list*”. A Compensation and Resettlement Policy Framework (CRPF) has been prepared as a standalone document and it will be applied to Lao PDR activities when land acquisition is involved. The CRPF define the definition of Project Affected Persons (PAPs), eligibility and entitlements, content of Resettlement Action Plan (RAP), and the consultation process, including grievance procedures and monitoring

⁶ The Lao National Unexploded Ordnance Program (UXO Lao) was established by Prime Minister’s Decree #49 dated 13 February 1996 with the support of UNDP, UNICEF, and other stakeholders. UXO Lao is a project of National Execution and a department under the Ministry of Labor and Social Welfare. The organization is the responsibility of the UXO Lao National Program Director who directly reports to the Minister of Labor and Social Welfare. Its mandate is to reduce the number of casualties caused by unexploded ordnance, and increase the amount of land available for food production and other socio-economic development activities. The organization works in nine of the most heavily UXO impacted provinces in the country.

requirement. Voluntary land donation will be allowed only when it meet the description described in the CRPF.

56. **Resource Access Restriction:** Implementation of fisheries management (Sub-component 3-2) may restrict access to resources, notably efforts to enforce national laws or local regulations in protected and/or conservation areas. This concern has been considered during the Project design and provision of alternative livelihoods has been included in the Subcomponent 3-2. During stakeholder consultations the following approach was accepted, in principle, by local communities and local authorities as well as local and international non-governmental organizations active in the project area:

- First, better fisheries management would benefit the local communities in the long run by establishing sustainable fisheries management;
- Second, the fisheries management plan would be developed through full participation and ownership of the respective communities; and
- Third, the Project also envisages provision of livelihood development options (which will be selected through participatory planning with affected populations) in order to mitigate potential negative impacts.

57. The implementing agencies of this subcomponent will finalize the activities following this approach and keep proper documentation and filing. If the affected population is ethnic minority as defined by OP 4.10, consultation will follow the principle and process described in the EGPF and proper documentation and filing will also be required. Special attention will be given to minimize negative impacts on women and other disadvantage groups.

58. **Gender:** During preparation of M-IWRM, attention has also been given to encourage women to play an active role in the consultation process. During implementation effort will be continued to make sure that women are: (a) consulted and their concerns will be addressed; (b) consulted and trained on chosen livelihoods that would restore their income and improve their living standards, (c) given the opportunity to represent the community groups meetings, focused-group discussions, planning and implementation, and (d) represented equally in the Grievance and Redressal Committees (GRCs).

59. **Unidentified activities:** There are activities that could not be identified before appraisal. To avoid or mitigate these risks, a safeguard screening process comprising a “*negative list*”, a simple impact assessment, and specific actions are provided to ensure that the negative issues are identified and adequate mitigation measures are undertaken. This is to ensure that the M-IWRM activities are in compliance with the Government of Lao (GoL) regulations and the WB’s safeguard policies, and if possible maximize positive gains. The safeguard screening criteria and process is discussed in Section IV below.

V. Safeguard Screening Process

60. Safeguard screening and assessment was conducted for the activities identified during the original project preparation through 2010 Initial Environmental Examination (IEE), and the required mitigation measures have been identified and they will be implemented and

monitored during implementation. All the activities to be identified during Project implementation will undergo a rapid safeguard screening prior to their approval and implementation. The screening procedures will determine (i) if the proposed activity is eligible for M-IWRM funding; (ii) if and what safeguard issues need to be addressed; and (iii) what safeguard documents need to be prepared. The M-IWRM will keep records of all proposals received and screening decisions for review by the WB. Below describes the four main steps in the safeguard screening and approval process:

5.1 Step 1: Eligibility Screening.

61. The project will apply a ‘*negative list*’ with a number of non-eligible activities to avoid adverse social and environmental impacts which cannot be adequately mitigated or are not eligible for WB financing. The M-IWRM negative list is given in *Annex 1* will be considered as the first safeguard screening for all proposed Project activities. Close consultation with WB safeguard specialists may be necessary.

5.2 Step2: Technical Safeguard Screening.

62. For activities which are not on the ‘*negative list*’, a technical screening process will be applied to identify possible social and environmental safeguard issues. Two standalone policy frameworks related to ethnic groups (EGPF) and a compensation and resettlement (CRPF) have prepared, and Guideline Manuals for implementation of Components 3.1.1 and 3.2 have been prepared. A Social Screening Form is provided in Annex 2 of the CRPF will enable the project staff to identify the possible safeguard issues and decide upon subsequent safeguard documents to be prepared. Consultation with local government, local communities, and interested mass organization and/or NGOs would be important. *Table 3* describes key criteria and actions to be carried out during the technical screening process. The screening results should be attached to the proposed activities/subproject during the approval process. If significant issues are anticipated WB’s consultation will be necessary.

63. If the Project activities involve small civil works and do not require the government approval for any documents, the good engineering practices embodies in the ECOPs (*Annex 2*) will be applied and specific requirements, including a “chance find” clause, will be included in the bidding and contract document and the monitoring results and performance of contractors will be included in the Project progress report.

64. If the proposed activities/areas involve ethnic groups, the objective, procedures, and process, including documentation describes in the EGPF will be followed and the results included in the progress report. If negative impact to ethnic groups is anticipated, an Ethnic Group Development Plan (EGDP) will be prepared and WB review and clearance would be required.

5.3 Step 3: Safeguard documentation and clearance

65. The Project Management Unit (PMU) shall be responsible for keeping a copy of all records in its office in Vientiane. The responsible provincial and district office implementing their respective parts of the Project shall also maintain all relevant records. The following documents and clearance procedures shall be utilized in project implementation.

66. If an activity requires a works construction contract and the nature of the works is small with limited impacts, then the following documents must be prepared and kept for the record:

- Social Screening Check-List (Annex 2 of the CRPF)
- Construction Contract with ECOPs (Annex 2 of ESMF)
- If land acquisition is required then an Abbreviated Resettlement Action Plan (ARAP) shall prepared per the requirements of the CRPF.

67. If an activity requires a works construction contract and the nature of the works is medium-sized with moderate potential impacts, then the following documents must be prepared and kept for the record:

- To meet World Bank requirements: an Environmental Management Plan (EMP) or an Environmental and Social Impact Assessment (ESIA) with World Bank no-objection.
- To meet Lao PDR Environmental Requirements, as necessary: an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA).
- If land acquisition is required then an Abbreviated Resettlement Action Plan (ARAP) or a RAP shall prepared per the requirements of the CRPF.

68. If a small-scale construction activity is undertaken by the community, then the following documents must be prepared and kept for the record:

- For the Irrigation Component (3.1.2): i) A record of all public consultations, including list of participants and agreements reached; ii) Social Screening Check-List; and iii) Completion Report.
- If land acquisition is required then an Abbreviated Resettlement Action Plan (ARAP) shall prepared per the requirements of the CRPF.
- For small rural infrastructure under Component 3.1.1 (River Basin Management) and Component 3.2 (Fisheries), the documentation requirements in the Rural Infrastructure Guidelines should be prepared as follows:

Stages	Require Documentation
Orientation/kick off meeting	Preference list. Minutes of meetings.
Initial technical survey and validation	Screening checklist form. Community Consultation forms. Agreed and eligible preference list. Minutes of meetings.

Finalization of investment list	Investment clearance form.
Preparation of detail design and implementation plan	Investment Implementation Plan Meeting minutes
Implementation	Completion Report.

69. For alternative livelihood support under Component 3.2 (Fisheries) the documentation requirements in the Alternative Livelihood Guidelines should be prepared as follows:

Stages	Required Documentation
Orientation/kick off meeting	Minutes of the meeting
Selection of Communities and household beneficiaries and identification of livelihood activities	Community Screening (Ethnic and non-Ethnic Community) Household Selection and Screening checklist Minutes of the meeting Consultation for Agreed and proposed livelihood list
Finalize alternative livelihood activity list and household beneficiaries	Livelihood clearance form Minutes of the meeting Consultation form
Preparation of cost estimates for the proposed livelihood activities	List of Items to be Provided Minutes of the meeting Consultation form
Implementation	Training plan of Necessary
Monitoring and follow-up	Minutes of the meeting Consultation form

70. For community fisheries management support under Component 3.2 (Fisheries):

- Record of all consultations undertaken with communities in the preparation of the Fisheries Management Plan (FMP) as required under the “Guidelines for Establishing Co-Managed Fisheries in Lao PDR
- Record of Kum Ban Fishing Regulation (Village Resource Agreement) demonstrating village acceptance of the Fisheries Management Plan.
- In the unlikely event that the Kum Ban Fishing Regulation results in adverse impacts on ethnic minorities, the project shall prepare an Ethnic Action Plan, approved by the Bank, to avoid, minimize, mitigate, or compensate for any adverse effects.

5.4 Step 4: Safeguard implementation, supervision, monitoring, and reporting

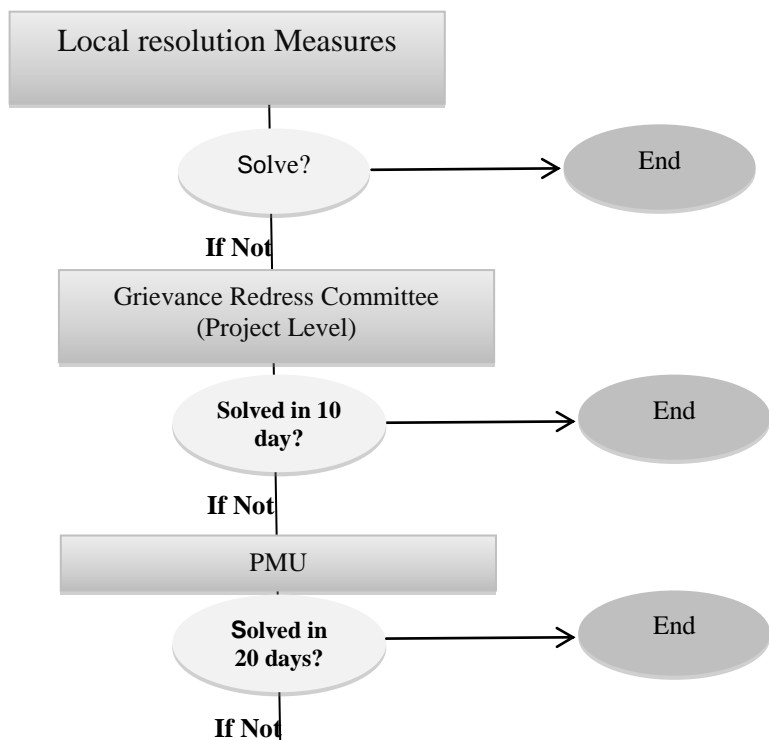
71. During implementation, the Component Management Units (CMUs) responsible for each subcomponent will be responsible for ensuring effective implementation of safeguard measures in close consultation with local authorities and local communities. Provision of safeguard training would be necessary to ensure clear understanding of safeguard measures and enhance their effectiveness. The project management unit (PMU) and/or the national implementing agency will periodically supervise and monitor the safeguard implementation performance and include the progress/results in the project progress report. Information regarding the safeguard measures and performance should be periodically disclosed to the public. The WB will conduct safeguard supervision, monitoring, and post review

VI. Grievance Redress Mechanism (GRM)

6.1 Mechanism and Committee

72. Grievances related to environmental and social impacts that result from the AF activities will be resolved through the grievance mechanism presented in Figure 6.1. A Grievance Redress Committee (GRC) will be established at local level. 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 PMU/DWR 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. The status of grievances submitted and grievance redress will be reported to PMU/DWR management through the monthly report.

Figure 6.1 GRM



If still unresolved, APs may choose to exercise their right under Lao law to refer the matter to a court of law.

73. 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. The Project Management Unit of DWR (PMU/DWR) will ensure that communities directly affected by the AF have a full understanding of the GRM and ways to access it especially on (i) the concept of compensation for any involuntary acquisition of land and/or assets and (ii) ensuring environmental and social mitigation measures in the ESMP's are implemented as planned.

74. The project affected peoples (PAP) (or his/her representative) may submit his/her complaint in a number of ways e.g. by written letter, phone, SMS messages and email to the GRC or, alternatively, raise his/her voice in a public or individual meeting with project staff. The GRC will meet to try and resolve the matter at community level and make a recommendation within 7-10 working days from receipt of complaint. If there is no decision after 10 days the AP can refer the complaint to the Grievance Redress Committee (GRC) established for the AF in the province who will then address the complaint and respond to the complainant within 20 days. The GRM procedures to be followed for all subprojects will be

translated into Lao language and/or local language as needed so that they are easily accessible to all stakeholders and made available by the Component Implementation Unit (CIU). Information on the steps to be followed in handling grievances will be incorporated into the process of providing local communities with information about the proposed subprojects.

6.2 Recording and processing of grievances

75. All submitted complaints and grievances will be entered into a database/project files which will be updated regularly. Each complaint and grievance should be ranked, analyzed and monitored according to type, accessibility and degree of priority. The status of grievances submitted and grievance redress will be reported by the PMU/DWR. Right of local authority, mass organization, and/or individual to file the grievance and receive attention will be publicly informed/communicated to the local residents and general public through appropriate media (website, leaflet, etc.).

76. Communities and individuals who believe that they are adversely affected by a WB supported project may submit complaints to existing project-level grievance redress mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaints to the WB's independent Inspection Panel which determines whether harms occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at anytime after concerns have been brought directly to the WB's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VII. Consultation and Information Disclosure

77. **Consultation:** Consultations on the Project's additional financing and the revised safeguard documents were held in Vientiane (December 8, 2016) and in Khammouane Province (December 14, 2016). The updated safeguard documents were disclosed in the Bank Infoshop on December 19, 2016, and were disclosed locally in Lao and English languages on January 11, 2017. The minutes of the meetings, including list of participants is included in Annex 6 of the ESMF. Following additional editorial remarks by the World Bank, the safeguard documents were slightly revised and re-disclosed in March 2017.

78. Presentation and discussion at the consultations were carried out in Lao by Project staff. Information provided and discussed included project objective, description, and component, potential impacts (positive and negative) of the project. The draft ESMF were also distributed to the participants. In addition, discussion were held specifically to target ethnic peoples and women's groups. Results suggested that most of the related agencies and people in the project provinces fully support the project and considered that the proposed ESMF are appropriate and can be applied on the ground. Discussion with the representative

of ethnic peoples and women group also confirmed their full support. It has been agreed that during the preparation of specific subprojects to be proposed by the province and the preparation of the environmental management plan or other plans as required by the ESMF, additional consultations will be carried out in close consultation with the local authorities and people likely to benefit and/or affected by the subproject.

79. Comments received during the consultation process include: i) the need to review the new regulation and decree on the provision of livelihood for affected ethnic groups; ii) if there are any water supply subprojects, assistance in planning and design should be sought from the responsible line department; iii) need to consider social and land impacts of proposed new hatchery in Attepeu province; iv) need to involve women and ethnic minorities in the formulation of subprojects. The comments provided during the consultations have been incorporated into the final revised safeguard documents.

VIII. Implementation and Monitoring Arrangement

80. Overall responsibility for the compliance with the ESMF is shared between the Component Management Units (CMUs) responsible for implementation at subcomponent level and the project management unit (PMU) responsible for the overall supervision of the Lao PDR activities. *Figure 1* defines roles and responsibility of the CMUs and PMU. Each unit will assign a safeguard coordinator to be the focal point and training will be provided to the focal points as well as other key staff.

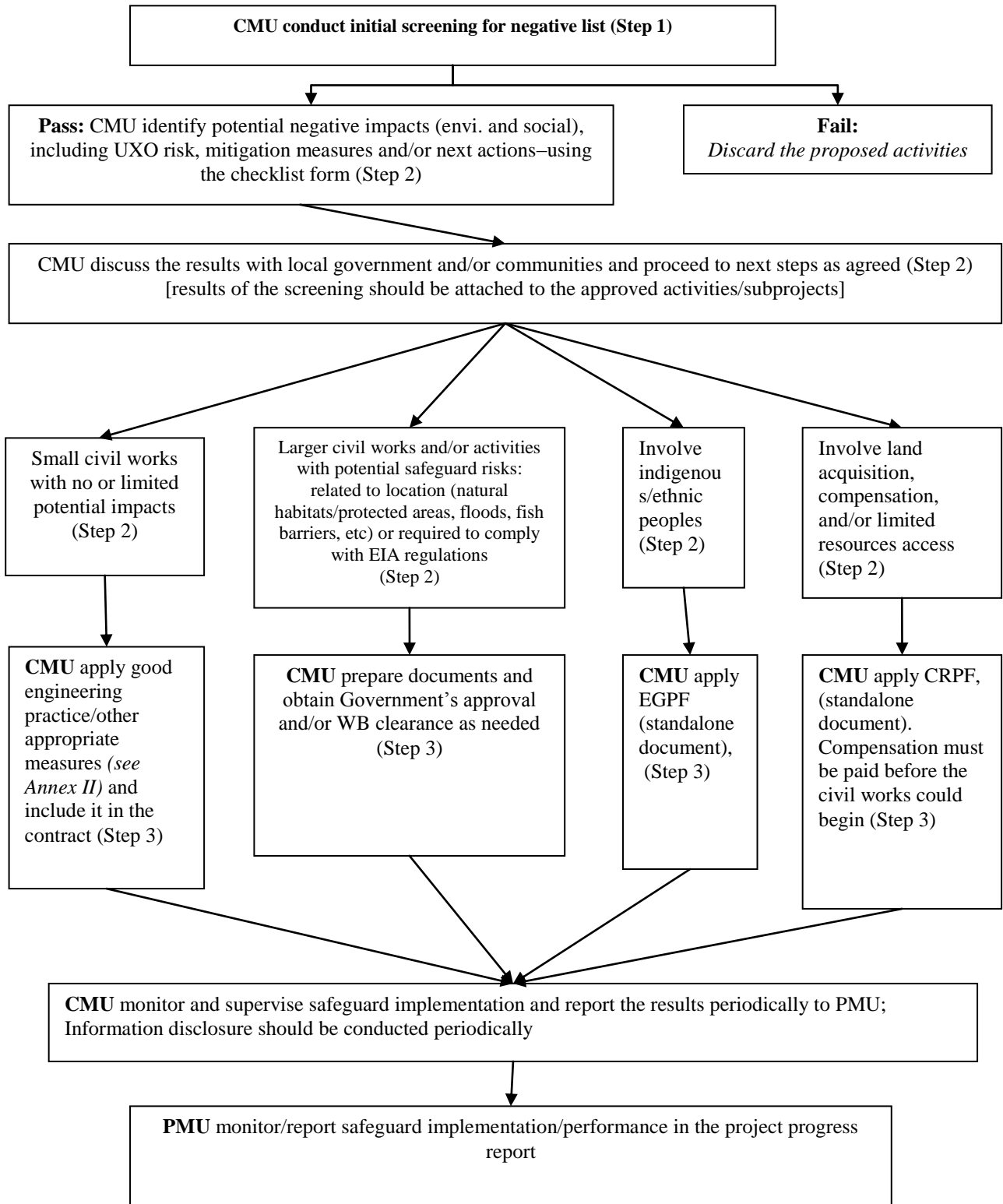
Table 3. Guidance on safeguard issues and actions

Potential negative impacts	Required mitigation actions	Remarks
(1) Permanent or temporary loss of land or resources for any families, including restriction of access to natural resources and/or impediments to movement of people and animals (Includes patrolling activities)	Identify the amount and nature of land required, owner, and/or other issues and prepare a Resettlement Action Plan (RAP) to provide compensation and/or assistance following the Compensation and Resettlement Policy Framework (CRPF) for Lao PDR. <u>Grievance redress recording/reporting will be provided and monitored.</u>	Prior consultation with WB, proper documentation, and Post review by WB may be necessary.
(2) Potential social conflicts arising from land tenure and land use issues and/or in water supply rights or related social conflicts	Develop a mitigation measure for conflict resolution through close consultation with stakeholders.	If the conflicts may deteriorate livelihoods or living conditions of women or the poorest families in the sub-project area or involve political influence, or likely to be escalated to higher level, inform WB
(3) Likely to adversely affect ethnic groups	Carry out social assessment process through free, prior, and informed consultations and, if necessary, prepare an Action Plan in accordance with guidance in the Ethnic Groups Planning	Prior consultation with WB, proper documentation, and Post review by WB may be necessary.

	Framework (EGPF) for Lao PDR. <u>Grievance redress recording/reporting will be provided and monitored.</u>	
(4) Likely to increase the use of pesticides and/or toxic chemicals that could affect soil quality, water quality, and/or water users downstream	Prohibit the use of large amount of pesticides and toxic chemicals; Apply the simplified pest management plan (<i>Annex 3</i>) and provides training to farmers/fishers.	
(5) Activities to be carried out in a Protected Area, Wildlife Reserve, Buffer Zone, Wetlands, or other conservation area or activities involve civil works that may cause significant air, noise, and/or water pollution, soil erosion, and/or create public health risks, wildlife hunting, or impacts on downstream water uses.	<ul style="list-style-type: none"> • Prepare an Environmental Management Plan (EMP) to mitigate the potential negative impacts and/or to reduce safeguard risks; some guidance on the mitigation measures would be provided in the safeguard operation manual. • Conduct consultation with local authority and communities. 	<p>The Component Management Units (CMU) and/or the project management unit (PMU) will ensure that the activities are compliance with the government regulations.</p> <p>Prior consultation with WB, proper documentation, and Post review by WB may be necessary.</p>
(6) Unsustainable forestry utilization, including non-timber forest products (NTFPs); introduction of non-native species; causing flood to nearby area; and/or blockage of fish migration, including unsustainable use of other aquatic animals (OAAs).	Consult with local community to reach an agreement on how to avoid/mitigate the potential negative impacts and when possible increase sustainable use of forestry products, fisheries, and other aquatic animals. If a new species is involved making sure that the new species is already present in the vicinity or is known from similar setting to be non-invasive. If restriction of natural resources, social conflict, and/or ethnic groups as indicated in (1), (2), (3) follow the mitigation measures identified in (1), (2), (3).	<p>Excluding logging, harvesting or processing of timber products.</p> <p>Close consultation with WB safeguard specialists is recommended.</p>
(7) Involve UXO risk?	If yes, contact responsible agency and complete the clearance before conducting project activities	CMU to take the lead in securing safety of the project area
(8) Activities involve small civil works that may cause small amount of air, noise, and/or water pollution, soil erosion, and/or create public health risks, wildlife hunting, or impacts on downstream water uses.	<ul style="list-style-type: none"> • Apply good engineering and/or good housekeeping with close monitoring and supervision, including maintaining close consultation with local population. • The contract will also include a special clause on “<i>chance find</i>”. 	CMU and PMU will ensure that the appropriate mitigation measures are included in the contract and that the contractor effectively implement them.
(9) Technical Assistance activities do not take into account safeguard issues in	<ul style="list-style-type: none"> • Ensure the TORs for technical assistance activities related to river basin planning include requirements 	CMU and PMU will ensure that tasks are included in the TORs.

<p>the river basin planning stages, resulting in decision that may have potential future negative impacts</p>	<p>for taking into account safeguard principles, including: i) environmental and social objectives integrated into the planning process; ii) transparency promoted through stakeholder participation and public information disclosure; iv) systematic and comprehensive analysis of alternatives; and v) environmental and social capacity building and institutional strengthening.</p>	<p>CMU and PMU will supervise consultants to ensure the follow the TOR.</p>
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Figure 1 – Schematic flowchart to determined safeguard measures



Annex 1: Negative List of Prohibited Activities

To avoid adverse impacts on the environment and people, the following activities are explicitly excluded from funding under M-IWRM unless WB clearance is provided:

- (i) Relocation, and/or structural demolition of any houses or business.
- (ii) Land acquisition that affect more than 200 persons or 40 households.
- (iii) New settlements or expansion of existing settlements inside natural habitats and existing or proposed protected areas.
- (iv) Likely to create adverse impacts on ethnic groups within the village and/or in neighboring villages or unacceptable to ethnic groups living in a village of mixed ethnic composition.
- (v) Loss or damage to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values.
- (vi) New roads, road rehabilitation, road-surfacing, or track upgrading of any kind inside natural habitats and existing or proposed protected areas.
- (vii) Purchase of gasoline or diesel generators and pumps; guns; chain saws; large amount of pesticides, insecticides, herbicides and other dangerous chemicals; asbestos and other investments detrimental to the environment; if pest invasion occurs, small amount of eligible and registered pesticides in Lao PDR could be allowed.
- (viii) Forestry operations, including logging, harvesting or processing of timber products; however support to sustainable harvesting and processing of NTFPs are allowed if accompanied with a management plan for the sustainable use of the resources.
- (ix) Introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.
- (x) Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses.
- (xi) Large scale construction or small/medium scale construction expected to lead to significant negative environmental impacts. Large project that requires full EIA will not be funded.

Annex 2. Environmental Code of Practice (ECOPs)

2.1 Good engineering and housekeeping practices

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

DO:

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

DO NOT:

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

SPECIAL NOTE ON FLAMMABLE/EXPLOSIVE MATERIALS:

1. Store flammable or explosive materials such as gasoline, oil and cleaning agents apart from other materials.
2. Keep flammable and explosive materials in proper containers with contents clearly marked.

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

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

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

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

2.3 Environmental effects and mitigation measures for small public buildings, including hatcheries

Activity	Potential Effects	Possible Mitigation Measures
<i>I. Construction</i>		
1. Site clearing	Disturbance of habitats and/or nearby community	Inform nearby community and local authority
2. Civil works building	Noise, dust, vibration, traffic, wastes, creation of borrow pits	Reduce traffic, control noise, dust, vibration measures, landscaping
<i>II. Operations</i>		
1. Wastes from the operation of building And/or hatcheries	Water pollution, garbage.	Ensure proper treatment of wastes and collection of garbage.

2.4. Environmental effects and mitigation measures for boreholes

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

2.5 Environmental effects and mitigation measures for rural roads

Phase/Activity	Potential Effects	Possible Mitigation Measures
Planning/ design	<p>Land acquisition, encroachment to protected areas and/or natural habitats, cultural sites, etc.</p> <p>Too high standards and too much earth works excavation;</p> <p>Flood due to obstruction of drainage.</p> <p>Location of campsite must be accepted by the local people.</p>	<p>Apply appropriate standards, size, and direction of the roads to minimize the impacts; selection of the route should be made through consultation with local people; safety and dust impacts during construction and operation should be considered.</p> <p>Any compensation measures must be completed before construction begins.</p>
Construction	<p>Increase air and noise pollution for any nearby settlements; Introduction of outside workforce and other negative social consequence; Waste generations from construction sites and work camps; Increase uncontrolled use of firewood and hunting of fishes and wildlife; Increase pollution from workshops; Increase risk due to traffic safety; Opening of borrow pits; etc.</p>	<p>Control contractors' vehicle speeds and noise; Contractor employs local people where possible; Establish and implement waste management plan; Contractor supplies alternative fuel for cooking and heating in the labor camp and provide adequate food supply; apply good housekeeping and good engineering practices at all work place and work camps; provide adequate road safety signs and measures; proper selection of borrow pits and ensure proper closure.</p>
Operation.	<p>Increase dust and risk due to road safety.</p>	<p>Install appropriate signs and cooperate with local residents to take actions to promote road safety.</p>

2.6 Environmental effects and mitigation measures for (medium scale) irrigation schemes

Potential Negative Effects	Possible Mitigation Measures
Soil erosion	Proper design and lay-out of furrows or field avoiding too steep gradient; Land leveling; Design of terraces on hillsides minimizing surface erosion hazard; Maintain vegetation cover
Water logging of soils	Regulation of water application to avoid over-watering; Installation and maintenance of adequate drainage system; Use of lined canals or pipes to prevent seepage; Accurate calculation of delivery irrigation requirements
Salinization of soils	Leaching of salts by flushing soils periodically; Cultivation of crops with salinity tolerance
Scouring of canals	Design of canal system to minimize risk; Use of canals lined with rocks
Clogging of canals by sediment	Measures to minimize erosion on fields; Design and management of canals to minimize sedimentation; Provision of access to canals for removal of weeds and sediments
Leaching of nutrients from soils	Avoidance of over watering; Replacement of nutrients through crop rotation; Accurate calculation of fertilizer requirements,
Algal blooms and weed proliferation	Appropriate application of fertilizers (quality, quantity, timing)
Clogging of canals by weeds	Design and management of canals to minimize weed growth; Provision of access to canals for treatment or removal of weeds
Deterioration of river quality below irrigation subproject and contamination of local groundwater (higher salinity, nutrients, agrochemicals) affecting fisheries and downstream users	Improved water management; Improved agricultural practices and control of inputs (particularly pesticides and chemical fertilizers); Imposition of water quality criteria
Reduction of downstream flows affecting flood plain use, flood plain ecology, riverine and estuarine fisheries, users of water, dilution of pollutants	Relocation or redesign of sub-project; Regulation of take-off to mitigate effects; Compensatory measures where possible
Encroachment on swamps and other ecologically sensitive areas	Choose sub-project's site to avoid or minimize encroachment on critical areas; Establishment of compensatory parks or reserved areas
Threat to historical, cultural or	Choose sub-project's site to prevent loss; Salvage or

aesthetic features	protection of cultural sites
Alteration or loss of flood plain vegetation and disturbance of coastal ecosystems (mangroves)	Choose sub-project's site to be in less vulnerable area; Limitation and regulation of water take-off to minimize problems to the extent possible
Introduction or incidence of water-borne or water-related diseases	Use of lined canals or pipes to discourage vectors; Avoidance of stagnant or slowly moving water; Installation of gates at canal ends to allow complete flushing; Filling or drainage of borrow pits along canals and roads; Water testing; Disease prophylaxis and treatment
Disease and health problems from use of waste water irrigation	Wastewater treatment (e.g. settling ponds prior to use); Establishment and enforcement of standards for wastewater use.
Conflicts over water supply and inequalities in water distribution throughout service area	Means to ensure equitable distribution among users and monitor to assure adherence; Establishment of effective water users associations
Over-pumping of groundwater	Limitation of withdrawal so that it does not exceed "safe yield" (recharge rate)
<i>External</i>	
Water quality deteriorated or made unusable by upstream land use and pollutants discharge	Control of land use in watershed areas; Control of pollution sources; Water treatment prior to use
Failure of upstream dams or reservoirs on which the sub-project activities depend	Check dam or reservoir safety prior to sub-project implementation

Annex 3 – Simplified Pest Management Plan

1. This plan will be applied to the project activities involve rehabilitation of or development of a small community irrigation scheme that may increase the use of pesticides. The plan comprises the following 3 aspects: application of government regulation on pesticide control, training of integrated pesticides concept and/or other approach and safe use of pesticides, and monitoring. It is anticipated that under M-IWRM, procurement of pesticides by the project will be carried out by the Component Management units (CMUs) responsible for implementation of Component 3. Key activities to be carried out are described below:

(A) Application of Government regulations

2. Government regulation related to pesticide control exists and it has been recently updated (2860/MAF). The regulation defines the principles, rules and measures for controlling activities involved with pesticide in Lao PDR with an aim to protect human health, animal plant and environment, and to be consistent with the international agreements/regulations. It requires that all pesticides sell/distributed in Lao PDR must be registered with the Department of Agriculture (DOA) of the Ministry of Agriculture and Forestry (MAF) and describes specific measures regarding transportation, storage, usage, and disposal. CMU will carry out the following activities in line with the regulation as follow:

3. *Procurement, transportation, storage, uses, and disposal:* CMUs will procure only pesticides that are registered in Lao PDR and not listed as the banned pesticides (see below). Qualified distributors should be limited only to those who are compliance with the regulation regarding the knowledge and proper services regarding transportation and storage. CMUs will also strictly follow the regulation regarding transportation and storage and also provide training to farmers as well. Below provides information regarding transportation, storage, use, and disposal of pesticides as required in the 2860/MAF regulation:

Transportation (art 20): Transporters/ carriers of pesticide shall adhere to the following rules:

- 1) For consignment of Pesticides, either of same or different groups, exceeding 100 litres (fluids) or 1000 kg (solids), separate documentation has to be issued and be kept with the driver. The documentation shall have the following content:
 - Name, address, phone number of owner and shipper
 - Trade name or common name of transported Plant Protection Products
 - Formulation types and concentrations of Plant Protection Products transported
 - Volume of Plant Protection Products
 - Emergency procedures, in the case of breakage or spill
 - A safety data sheet for each of the materials transported
- 2) For consignments greater than 1000 litres or 1000 kg the transport route must be declared in advance.

- 3) Plant Protection Products carried by means of public transport, shall not exceed 20 l for liquids or 20 kg for solids. However, they shall be wrapped properly and kept separately from the passengers and other goods.
- 4) The drivers of vehicles carrying Plant Protection Products shall be selected properly – they shall be reliable and competent.
- 5) Prohibit to transport pesticides with living organism and others goods.

Storage (art 21): If pesticides are store more than 10 litres/kilogram the following requirement should be met:

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

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

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

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

List of banned pesticides are as follows:

- *Insecticides and acaricides:* Aldrin, BHC, Chlordane, Chlordimeform, Chlorfenvinphos, Chlorthiophos, Cyhexatine, DDT, Dieldrin, Dimefox, Dinitrocresol, Demeton, Endrin, Endosulfan, Ethyl Parathion, EPN, Heptachlor, Hexachloro cyclohexane, Leptophos, Lindane, Methamidophos, Methomyl, Methyl parathion, Monocrotophos, Pholy chlorocamphene, Phorate, Schradan, TEPP, Toxaphene
- *Fungicides:* Binapacryl, Captafol, Cycloheximide, Mercury and mercury compounds, MEMC, PMA, Selenium compound
- *Rodenticides:* Chlorobenzilate, Sodium fluoasetate
- *Herbicides:* 2,4,5 -T; Dinoseb; Dinoterb acetate / Dinitrobutyphenol; Paraquat; Sodium chlorate
- *Fumigants:* EDB, Ethylene oxide, Methyl bromide
- *Others:* Arsenic compound, Calcium arsenate (Herbicide, rodenticide, molluscicide, insecticide); DBCP (Nematocidide); Daminozide (Plant growth regulators); Fluoroacetamide (Insectide, rodenticide); Oxamyl (Insecticide, acaricide, termiticide); Phosphamidon (Insecticide, nematocidide); Sodium Arsenite (Insecticide, fungicide, herbicide, rodenticide); Thallium (i) sulfate) (Rodenticide, insecticide)

(B) Safeguard Training

6. Soon after the project approved, the first safeguard training will be carried out for all CMUs and PCU staff to ensure that they are fully understand safeguard requirements and process. The training will also include this simplified pest management plan, especially the 2860/MAF regulation which will be trained by a qualified staff from DOA/MAF. During the identification and/or preparation of the irrigation scheme, CMUs will discuss this aspect, including other options such as SRI, organic farming, etc. during the participatory planning process. If irrigation scheme is selected and the design is completed, before the beginning of the subprojects implementation, CMU and provincial and district officers (PAFO/DAFO) will organize a safeguard training, focusing on the implementation of this simplified pest management plan which will be used when rehabilitation and/or development of community irrigation scheme may be involved. The training will include but not limited to all key aspect of the GOL regulations, especially those related to eligible pesticide to be procured, how to store them and the best practice on pesticide use. The training will include immediate action required incase misuse of the pesticide by staff or farmer.

(C) Monitoring

7. The Component Management units of the Component 3 in close consultation with the provincial and district staff responsible for monitoring the use of pesticides will periodically visit the target areas and monitor the use of pesticides and the result should be recorded in the project file. If pest invasion occurs and it is necessary to use pesticides, CMUs will ensure that the famers can properly and safely use them. If needed additional training will be provided to the farmers.

Annex 4: Policy, Legal, and Institutional Setting

A4.1 National Laws and Regulations

1. 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. The Environmental Protection Law (EPL) established in 1999 and revised in 2012, describes the principles, regulations and measures for managing, monitoring, restoring, and protecting the environment including the pollution control and the impact assessment processes, especially the Environment and Social Impact Assessment (ESIA) and an Initial Environmental Examination (IEE) regulations which are established in late 2013. A number of decrees, regulations, and guidelines have also been established and applied during 2000's. MoNRE is the lead ministry responsible for implementation of the EPL and its regulations and/or guidelines.

2. Below highlights key regulations related to EIA/IEE process and pollution control:

- *MoNRE regulation on ESIA and IEE (17 December 2013)*. This regulation has been issued according to the revised EPL in December 2012 and the operation of MoNRE in 2012 and replaces the Prime Minister's Decree No. 112 on Environmental Impact Assessment (16 February 2010). The ESIA/IEE processes incorporate the preparation of social impact assessment and mitigation/monitoring plan in accordance with the compensation and resettlement decree established in 2005 has been revised and the new decree (Decree 84/PM) has been approved in April 2016. The ESIA regulation in 2013 assigns the Department of Environment and Social Impact Assessment (DESIA) to be responsible for review of the ESIA regulation including recommendations for the issuance of the Environmental Compliance Certificate (ECC)⁷ and undertaking compliance monitoring while the IEE regulation assigns the Provincial Department of Natural Resources and Environment (PoNRE) to be responsible for review, issuance of ECC, and monitoring of project that require an IEE. The regulation also provides a list of projects requiring EIA or IEE. In addition, MoNRE has established a number of guidelines for the preparation of EIA, SIA, and IEE report including the public involvement in the EIA and IEE processes.
- *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

⁷ The ECC will be issued by the Minister of MoNRE

(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 substance (per the Montreal Protocol) and be the focal point for the Great Mekong Subregion program (funded by ADB).

3. On social safeguard key regulations are as follows:

- *Decree on Compensation and Resettlement of People Affected by Development Projects (5 April 2016)*. 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 basic principles applied by the decree are (a) protection of rights and eligible benefits of affected peoples; (b) ensuring equal, correct, transparent, openness, and judged treatment; and (c) undertaking coordination, consultation, and participation among project owners, affected people, agencies, and concerned stakeholders. The decree describes procedures and guidelines for planning and implementation procedures for compensation, resettlement, and livelihood restoration. MONRE/DESIA plays a key role in the management and administration of the compensation and resettlement process including monitoring and evaluation.
- *On ethnic groups*⁸, 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 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 facilities, 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%⁹. *Box A4.1* below summarizes the main characteristics associated with the four ethno-linguistic

⁸The 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 OP/BP 4.10.

⁹ National Biodiversity Strategy to 2020 and Action Plan to 2010, 2004.

groups in Lao PDR¹⁰. In mid 2013, the LFNC established the national guideline for Consultation with Ethnic Groups.

Box A4.1: 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 13 th 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 19 th century.
Chine – Tibetan	TibetoBu rman	3% of the population, living mainly in poorly-connected upland areas in the North; animist and shifting cultivators; migrated to Lao PDR in the 19 th century.

5. Key regulations related to natural resources include:

- *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 (see Box 4.2).

¹⁰Lao 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

- *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 A4.2: Classification of forest areas (2007)

- The Forest Law provides for three classes of forest: Conservation Forest, Protection Forest, and Production 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 km² 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.

- *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. This regulation has been replaced by *the Decree on Protection Forest (No. 333 PM, dated 19/07/2010)* and *the Decree on Protected Area established in 2015 (No. 134/G, dated 13/05/2015)*. These decrees strengthen clarity and legal provisions on type

and land use categorization and zoning as well as authorities of agencies/units responsible for management of the protected area and protection forest at national, provincial, district, and village levels. The Department of Forest Resources and Management (DFRM) of MONRE is the lead agency responsible from management of these areas in close cooperation with the provinces.

6. *Other related policy, regulations, and international agreements:* Lao PDR is a member of many international and regional conventions and/or agreement and has been playing an active role. *Box A4.3* summaries other related policies/strategies, laws, decrees, regulations, and guidelines related to natural resources and environment and related international agreements and/or conventions related to natural resources and environmental management.

Box A4.3 Other national policies, laws, regulations and international conventions
<ul style="list-style-type: none"> <li data-bbox="250 709 1424 1071">– <i>Lao Tiger National Action Plan 2010-2015.</i> 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. <li data-bbox="250 1113 1424 1396">– <i>Land Law (21 November 2003).</i> 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. <li data-bbox="250 1438 1424 1690">– <i>Water resources law:</i> 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 Assemble in late 2014. The draft revised law has been developed in line with an integrated water resources management principles. <li data-bbox="250 1732 1424 1869">– <i>ASEAN Agreement on the Conservation of Nature and Natural Resources (1985).</i> 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 Xe Champhone Wetlands in Savannakhet Province, and the BeungKiatNgong Wetlands in Champassak Province.

7. **Road Law (1999):** The road law describes type of road works comprising construction of new road, road upgrading, road improvement, road rehabilitation, road maintenance, and emergency road works and assign the responsibility for development and management of road networks to DoR and other agencies within MPWT including the provincial department of public works and transport (DPWT). The law is being revised taken into account the Government policy and the current institutional arrangement.

A4.2 National Institutional Arrangements

8. 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 and environment, and road transport development are highlighted as follows:

- **MONRE:** This is a new ministry established during 2011-2012. 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 agencies¹¹. In addition to DESIA, PCD, DFRM, DDMCC, and DEQP mentioned above, other key agencies include the Department of Water Resources (DWR), the Department of Meteorology and Hydrology (DMH), the Department of Land Management (DoLM), the Department of Land (DoL), the Department of Geology and Minerals (DGM), and the Natural Resources and Environment Research Institute (NREI). DEQP is promoting Green, Clean, and Beautiful agenda using various policy and planning measures and/or other incentives and be the focal point for Global Environmental Fund (GEF) and Ramsar conventions. The technical and management capacity of these agencies remains weak due to limited number of qualified staff and with supports from international financing and/or donor agencies¹² there are some technical assistance and capacity building activities related to safeguard however effective coordination among agencies and/or projects remains a challenge.

- *MPWT*: Ministry of Public Works and Transport is responsible for management of public works, urban development, and 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 (DoR), the Department of Waterways Transport, the Department of Urban Development, and the Public Works and Transport Institute (PTI). DoR is responsible for road development and maintenance and technical divisions comprise the Project Management Division (PMD), 4 Regional Road Maintenance Projects (RRMP), and the Technical Division which is also responsible for planning and supervision of safeguards for road related activities. At provincial level, the provincial Department of Public Works and Transport (DPWT) is responsible for planning and implementation at provincial and local level including road maintenance. The Environment and Social Division of PTI (ESD/PTI) is responsible for establishment of safeguard procedure, supervision, and training of safeguard for MPWT.
- *Ministry of Agriculture and Forestry (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.
- *Mass Organizations*: The Lao Front for National Construction (LFNC) is a mass organization established to be responsible for development and

¹¹Including the Cabinet office, the Department of Internal Audit, the Department of Personnel and Organization (DPO), the Department of Planning and Coordination (DPC), the Natural Resources and Information Center, the Lao National Mekong Committee.

¹² The key ones are the World Bank, IFC, Australia, ADB, the Mekong River Commission (MRC), Sweden, Finland, Germany, and UNDP.

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 and Districts:* In addition to the central agencies, there are provincial departments/offices in all 18 provinces including those responsible for (a) Natural Resources and Environment (i.e. Provincial Office of Natural Resources and Environment or PONRE and District Office of Natural Resources and Environment or DONRE); (b) energy and mining (i.e. Provincial Department of Energy and Mines); (c) agriculture and forestry (i.e. Provincial Agriculture and Forestry Office or PAFO); (d) public works and transport (DPWT); and (e) other offices and mass organizations such as LFNC and LWU. PONRE is responsible for implementation of the IEE regulation and issuance of ECC.

A4.3 National Policy and Plan on Gender

9. 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 plans¹³. The Seventh Five-year National Socio-Economic Development Plan (NSEDP) (2011-2015) emphasized population policy, human capital development and elimination of all forms of violence against women 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 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. A National Commission for the Advancement of Women 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 was established.

¹³Country Gender Assessment for Lao PDR: Reducing Vulnerability and Increasing Opportunity, the World Bank and ADB, 2012.

Annex 5: Environmental and Social Background and Project Area

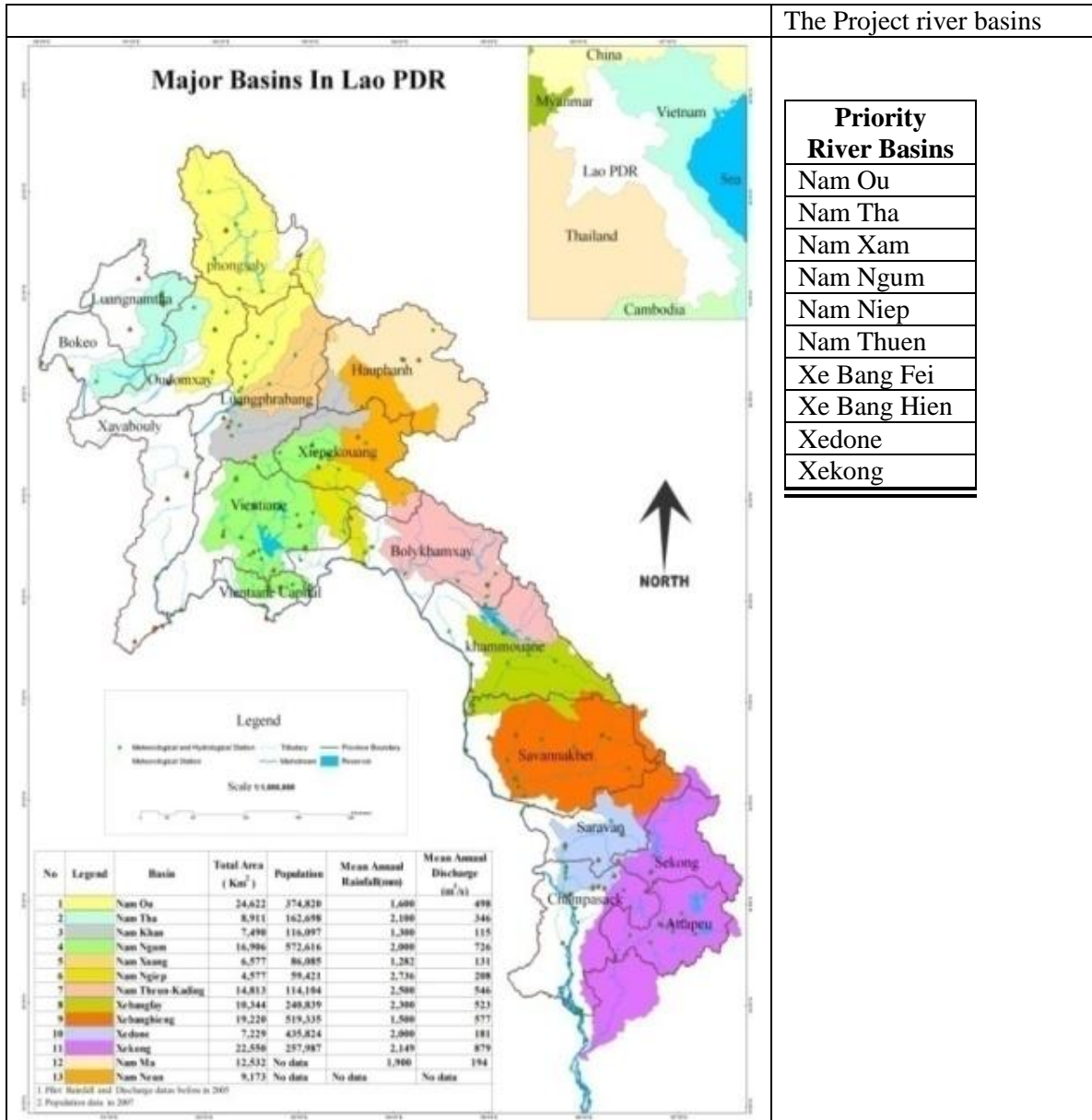
1. This annex briefly presents environment and social background for Lao PDR focusing on the project area likely to be involved during the implementation of the M-WRRM-AF including various maps (Map 1). The table below shows the anticipated locations by project component and river basins.

Project Locations by Component

River Basin	Water Quality Monitoring	Water Resource Modelling	Hydro-Met Station	River Basin Planning	Irrigation and Flood Control
Nam Ou		X	X		
Nam Kan			X		
Nam Tha		X			
Nam Xam		X	X		
Nam Ngum	X	X-DSS	X	X	
Nam Niep	X	X-DSS	X	X	
Nam Thuen		X			
Xe Bang Fei	X	X-DSS		X	X
Xe Bang Hien	X	X-DSS		X	X
Xedone		X	X		
Xekong	X	X	x		

Fisheries Component: Champassak, Xekong, and Attepeu Provinces.

3. Since socio-economic and environmental data is usually organized around province, instead of river basin, this section will focus on 9 provinces located in the central and southern parts of the country where the physical investments will take place: Xieng Khoung (XK), Xaysomboun (XSB), Vientiane (VTP), Bolikhamxay (BKX), Savannakhet (SVK), Salavanh (SLV), Attapue (ATP), and Champassak (CPS). Section A5.1 provides brief overview of Lao PDR while Section A5.2 provides brief environmental and social condition of the 7 provinces.

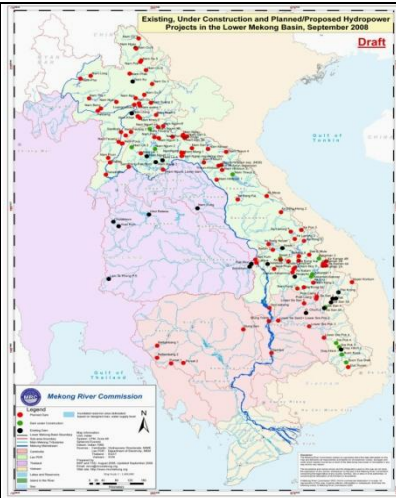


The Project river basins

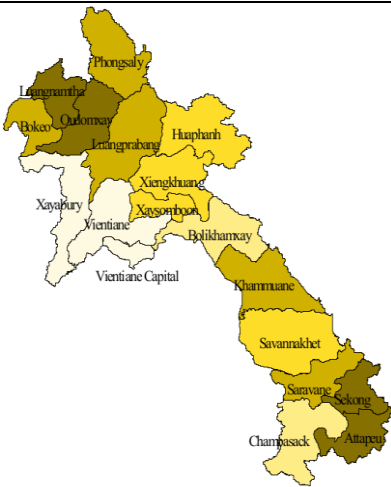
Priority River Basins
Nam Ou
Nam Tha
Nam Xam
Nam Ngum
Nam Nuep
Nam Thuen
Xe Bang Fei
Xe Bang Hien
Xedone
Xekong

Map 1: Locations and Key Features of Lao PDR

Lower Mekong Basin	Locations of hydropower project in Lao PDR	Locations of hydropower project in Lao PDR
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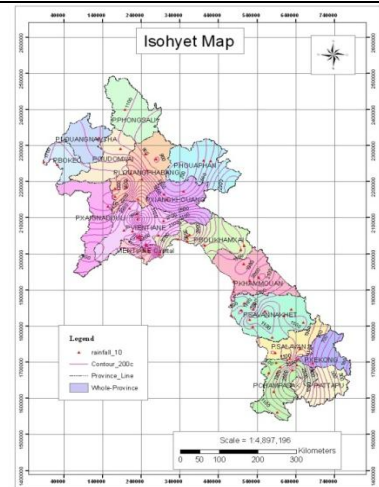
18 provinces



Area and population (2014)

Province	Area (km2)	Population (2014)
1PSL	16,270	199,900
2BK	6,196	149,700
3LNT	9,325	150,100
4ODX	15,370	275,300
5LPB	16,875	408,800
6XBL	16,389	382,200
7VTP	15,927	373,700
8VT/Capital	3,920	726,000
9HP	16,500	322,200
10XK	15,880	229,521
11XSB	8,300	82,000
12BKX	14,863	214,900
13KM	16,315	358,800
14SVK	21,774	721,500
15SLV	10,691	336,600
16CPS	15,415	575,600
17SK	7,665	83,600
18ATP	10,320	114,300

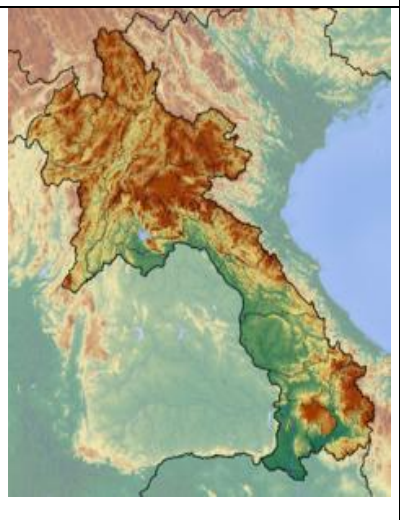
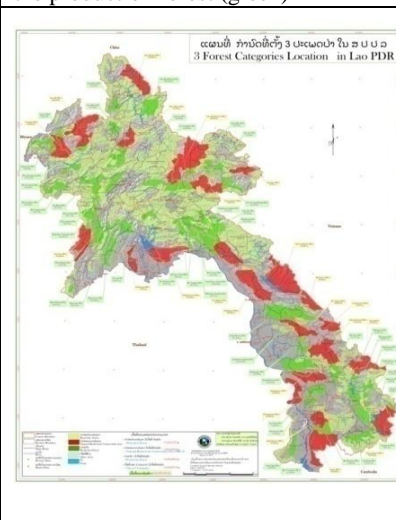
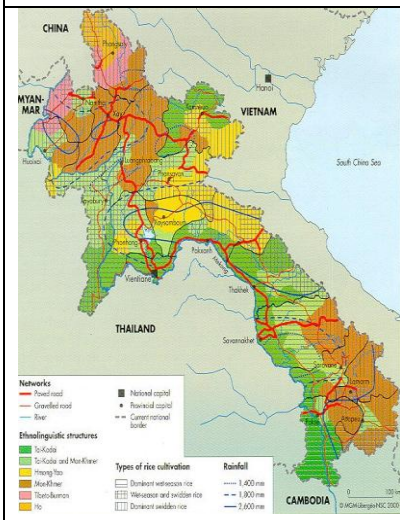
Rainfalls (isohyets Map)



Census 1995: green (Tai-Kadai), light green (Tai-Kadai-Mon-Kmer), yellow (Meo-Yao-Tai-Kadai), brown (Mon-Kamer-Tai-kadai), pink (Hor-Tibeto-Burman)

National Protected Areas (NPA or NCBA) (red), the National Protection Forest Area (NPFA) (light green), and the production forest (green)

Topography (brown= high, grey =low, blue= water the sea)



A5.1 Overview of Lao PDR

3. Lao PDR (236,800 km²) is located in the lower part of the Mekong Basin and is contribute about 35% of the Mekong flow. The country is bordered with China in the north, with Myanmar in the northwest and Thailand in the west, with Cambodia in the south and southeast, and with Vietnam in the east. Most of the country area along the northern borders with Myanmar, China and the eastern with Vietnam are mountainous while those along Thailand and Cambodia borders along the western and southern borders are flat land of the Mekong River. Lao PDR is rich in forests, water, minerals, biodiversity, and cultural values and almost half of the country is covered by forests. To move out from a least developing country status by 2020, the Government has implemented a policy to accelerate economic development and promote investment especially in hydropower, mining, industries, agriculture, and other infrastructure. A total population in 2015 was about 6.5 million with most people (about 63 percent) still live in rural areas however urbanisation is increasing at a rate of 4.9 percent each year.

4. Lao PDR has made significant progress in poverty alleviation over the past 2 decades and poverty rates declining from 46% in 1992 to 23% in 2015. Lao PDR is one of the fast growing countries (in top ten rank) with an average Gross Domestic Products (GDP) growth in 2015 with the GDP expansion of 7.5 percent in 2015. Main development challenge is ensuring that the natural resources are effectively and sustainably utilized, the potential negative impacts on local peoples and local environment are mitigated and minimized, and the benefits from high economic growth is shared among the Lao people.

5. Lao PDR is the most diverse ethnic groups in the region. The 1995 census provides information (at district level) on five ethno linguistic families according to their scientific classification. Of the 47 ethnic groups recorded in the census, EG can be classified as (a) The Tai-Kadai family (or Lao Loum) make up two-thirds of the country's population and includes the Lao (who account for over half of the total) and only five other ethnic groups (Phutai, White Tai, Black Tai, Red Tai and TaiPhouan); (b) The Austro-Asiatics (Lao Theung), accounts about 23% of the total population, consists of two branches (Mon-Khmer and Viet-Muong) and comprises 30 ethnic groups (the Khmu); and (c) the Miao-Yao (called Hmong-Yao in Laos) and (d) the Tibeto-Burmans. The latter two are called Lao Soung and they represent respectively 7.4% and 2.7% of the population. The Hmong, is the fourth largest ethnic group, behind the Lao, the Khmu and the Phutai. The last group, the Hor, belongs to the Sino-Tibetan ethnolinguistic family and numbers fewer than 10,000 persons.

A5.2 Environment and Social Background in Project Area

6. *Xieng Khouang (XK) (15,880km²):* This province is located in the north east of the country on the Xiang Khouang Plateau which is a large area of level land in the country. XK is bordered by 3 provinces (BLKX in the southeast, Vientiane in the southwest, and Houaphan in the north) and Vietnam in the east and has largely a mountainous topography. The province comprises 07 districts (Pek, Kham, Nonghed, Khoune, Morkmai, Phoukoud,

Phaxay, and Phonsavan (capital). 2 Districts of Hom and Longxan were assigned to the new established Xaysomboun Province. In early 2014, the total population 231,254 including 113,809 women. *Ethnic Groups*: According to provincial data regarding ethnic group, XK has 3 main ethnic groups Laolum (Taidam, Taideng, Phuan, Kmu, Hmong). Tai Dam, Tai Daeng and Tai Phuan belong to the Lao-Tai linguistic family, by far the most significant family in Laos, comprising over 50% of the total population. XK is one of the main maize producing areas of Laos. The main centre for trade and tourism is Phonsavan. There are many notable landmarks in the province and there are many natural and historical sites including the Plain of Jars archaeological site. The area is characterized by rolling hills and grassland at altitude averages 1,300 m and is the source of many rivers and has a high level of biodiversity, and a number of endangered species including tiger. There are several major tributaries of Nam Khong (Mekong) originated from XK including Nam Ngum, Nam Xan, Nam Ngiep Nam Hang and there are a number of smaller streams flowing through the province before discharging into the Mekong River. In addition, Nam Neun River is one of the rivers flowing through the province to Vietnam. However, during dry season there are water shortage in most rivers and streams causing difficulties to local people and animals. The country's highest peak, Phou Bia (2,820 m), is located in the province. Nam Et-Phou Louey is a National Protected Area (NPA) and covers an area of (5,959 km²) (overlaps into Houaphan and Luang Prabang). XK was heavily bombed during the Vietnam War era. There are issues related to land degradation due to illegal logging, conversion of production land for other purposes, ineffective management of water resources both surface and underground water, water shortage during dry season, water pollution, river bank erosion, deforestation of watershed, and negative impacts due to mining and hydropower development and operation, while capacity of the province to address these issues has been limited due to limited number of qualified and experienced staff, of operation budget, and of vehicles and other tools/equipment necessary for monitoring and management.

7. *Xaysomboun (XSB) (8,300 km²; 82,000 people)*: This is a new province established on 13 December 2013 and not much information is available. The province is bordered by Xieng Khouang in the north and the east, Bolikhamxay in the south and Vientiane in the west. It comprises 5 Districts: Anouvong (capital), Long Cheng, Tha Thom, Long San, and Hom. The climate is very cool with an annual average temperature of about 20°C. The province has Laos' highest mountain peak (Phou Bia, at 2,819 m) and has abundant natural resources scattered in high mountains and steep valleys but no natural protected area. The province is also rich in culture and tradition and ethnic groups include 55% Hmong, 19% Khmu, and only 26% lowland Lao. There are 26 villages that are officially classified as poor, while 1,800 families live below the poverty line, which is 13.8 percent of all families in the province. The province is open to tourists and year 2000 and ecotourism attractions include rafting trips in Nam Ngum River, Tad Phouyathao and Longsan waterfalls, Chao Anouvong Cave, and Pha Hom Hot Springs.

Private investment has focused only on mining and hydropower. Local administrations are encouraging people to engage in commercial production in areas of potential, notably food production.

8. *Vientiane Province (VTP) (15,927 km²; 480,000 people)*: Located about 85 km north of the Vientiane Capital and comprise 13 Districts: Phonhong (capital), Thoulakhom, Keo-

Oudom, Kasi, Vang Vieng, Meuang Feuang, Sanakharm, Meuang Mad, Hinherp, Viengkham (capital), Xaysomboun, Hom, and Meuane. About 2/3 of the land is mountainous and 1/3 is land field. It shares border with other provinces The landscape varies from the flat, fertile alluvial plains of the Mekong River Valley to rugged limestone mountains in the northern and western part of the province. Vientiane has a beautiful countryside and famous for tourism especially in Nam Ngum reservoir, VanVieng/Nam Song River, Nong Nok (bird watching), caves, Thoulakhom Zoo at Ban Keun to see a well-kept collection of local species, and Ban Bo in Thoulakhom District are large natural salt deposits that are processed and packaged using old technology. Vientiane Province comprises of 11 districts including Phonhong, Thoulakhom, Keoudom, Kasy, Vangvieng, Feuang, Sanakham, Maet, Viengkham, Hinheup, and Meun. At the end of the year 2013 Xaysomboun province has established, 2 districts of Hom and saysomboun were transferred from Vientiane Province to the new Xaysomboun province. Total population is about 351,916 people comprising 64% of total Lao –Tai group and 36% of non Lao-Tai group including Khmu, Hmong, Chinhor, Lumien, Singmoun, Phong and Yuan. According to provincial data regarding ethnic group, VTP has 12 ethnic groups of the 4 main linguistic groups including Lao majority. On *biodiversity*, there are Phou Kaoh Khuay NPA in the south and southeast and Phou Pha Nang NPA to the southwest of the province. There are many river and stream including Nam Ngum, Nam Lik, NamXong. Nam Ngum and its tributaries cover 11 sub-watersheds (which is about 80% of the total sub-watershed in the province and the rest are Nam Feuang sub-watershed in Maet District, Nam Tone sub-watershed in Hinheup District and Nam Por sub-watershed in Vangvieng District). Water quality is in medium level due to several sources of waste from factories, agro-chemical in agriculture field and waste water from residential area to the water directly. The province has many type of mineral resources. There are 35 private companies conducting survey for various minerals in the province includes copper, gold, coal, phosphate, zinc, tin, iron and potassium. Vientiane province is well known of ancient story of minority’s cultural conservation. There are 424 temples and Buddha’s images made of marble and copper of over 14,860 images throughout the province. There are totally 94 tourist spots including 3 ancient spots, 6 cultural places and 85 eco-tourist places. Recent development in urban area as well as rural area in the province includes industrial development, rural migration, and tourism development put harder pressure to the natural forest area. The main causes of the forest destruction illegal land encroachment, wildlife poaching for consumption and trading, illegal logging of banned species especially “mai khayoung (*Dalbergia Cochinchinensis*) in Phou Khao Khuay and Phou Pha Nang NPAs is ongoing. Duplicated issuance of concession seems to be competition for mines surveying and exploration in the area may become serious problem in the future.

9. *Bolikhamxay (BKX) (14,863km², 214,900 people)*: Located in the central part of the country and bordered with Vientiane province in the southwest, the Mekong River and Thailand in the west, Vietnam in the east, and Khammouane in the south. The province is a center for ecotourism activities with its two national protected areas and extensive wetland systems. Road 8 from Ban Khoun Kham to Lak Sao passes through a spectacular scenery of karst mountain landscapes and is considered to be one of the most impressive passage in the country. In 2013, BLKX is divided into 7 districts (Pakxan, Thaphabath, Pak Kading, Bolikhan, Kamkert, Viengthong, and Xaychampon), 28 Kumban, 411 Ban (village), 46,304 households (HH) with a total population of 271,656 of which nearly 50% is female. Majority

(80%) of the people practices agriculture. Average growth rate is about 2.4% and average population density is 15 people per km², and average income was about 8 million kip per capita per year (in 2010). *Ethnic Groups*: According to provincial data regarding ethnic group, BKK has 22 ethnic groups and 2 special groups including Lao majority. According to WB definition of indigenous peoples, ethnic minorities will be applied to the non-Lao majority which is about 60% of total population. BKK is rich in culture, water, forest, biodiversity, and other natural resources. Given its location, BKK is the gate way connecting Vientiane Capital and the southern part of Lao PDR as well as connecting Thailand and Vietnam along the east-west corridor (Road #8), development activities in BKK, especially in Pakxan District, has been rapid and it is expected to be accelerated during the next 5 years. There are also many cultural sites/land marks (Wat Phabath and Wat Phonsanh). The province identifies 74 tourist sites of which 9 are for cultural, 3 historical, and 62 natural tourist sites. BKK is rich in water resources. Apart from Mekong River there are many important rivers including Nam Xan, Nam Ngiep, Nam Kading, Nam Mang, Nam Thuen, and others. At present, there are three large hydropower projects i.e. Nam Theun 2 (1,070 MW), Theun Hinboun, and Theun Hinboun extension are in operation and stimulated socioeconomic development in the area. A few more hydropower projects (NT1) are under preparation and expected to be operated during the next 10 years. Increasing competition in water uses/allocation and water pollution in some area are expected. *On biodiversity*: BKK shares part of the three large national protected areas (Nakai–Nam Theun, Nam Kading, and Phou Khao Khouay) which are known to be home for many endangered species. Wildlife hunting for local consumption and export has been identified as an issue in the province while wildlife trafficking was also periodically caught. BKK is also rich in minerals (tin, limestone, gypsum, clay, phosphorus, and sand and there are gold mining, tin mining, and extraction of limestone and sand at present. It is expected that there would be more prospection and/or exploration on tin, copper, gold, and salts (potassium, sodium, magnesium) in the future. Key issues in BKK include soil quality degradation, land management, loss of production land for ethnic groups due to forest clearing (slash-and-burn cultivation, logging, forest destruction, mining, and hydropower construction), chemical use in agriculture, and degradation of cultural resources. Capacity of the province to address these issues remains weak due to limited number of qualified and experience staff and limited operation budget, vehicles, and other equipment/tools necessary for management and monitoring.

10. *Khammouane (KM) (16,135 km²; 375,504 people)*: Located in the central part and bordered by BKK in the north, SVK to the south, the Mekong River/Thailand in the west and the Ananmite range and Vietnam in the east. The province is divided to 09 districts: Thakhaek (capital), Mahaxay, Nongbok, Hinboun, Nhommalath, Bualapha, Nakai, Xebangfai, and Xaybouathong. Most people are engaged in agriculture. There are many limestone mountains, caves, and cultural sites. Kong Lor Cave is perhaps the most well-known in the province. It is 7.5 km long and as high and wide as 90-100 m in some places. The most important area in terms of biodiversity is the Nakai-Nam Theun NPA with its complex range of habitats and newly discovered species of mammals such as the saola, giant muntjac, and Indochinese warty pig. The vast forest of the Nakai-Nam Theun National Protected Area is an important watershed that feeds many Mekong tributaries as well as forms the catchment area for Nam Theun 2, the largest hydropower project in Laos. Fertile

land here is well suited to plantations of rice, cabbage, sugar cane, bananas, etc. Total population is made up of lowland and up-land Lao groups: Phuan, Tahoy, Kri, Katang etc. Thakhaek is the provincial capital, situated across the Mekong from Nakorn Phanom in Thailand. It also has much well preserved French colonial architecture similar to that found in Vientiane. The Lao, Phouthai and other Tai-speaking peoples are the main ethnic groups in Khammouane. Inhabiting mainly lowland river valleys. There are also Mekong or Bru people, a Mon-Khmer-speaking ethnic minority that make up 13% of the provincial population. In smaller numbers are the Kri, Nguan, Atel, Themarou, and Maleng who are mainly found in the mountainous eastern part of the province. *Ethnic Groups:* According to provincial data regarding ethnic group, Khammouane has 3 main ethnic groups of Lao (61.2%), Phouthai (19.69%), Makong (9.74%), Saek (0.69%), Tri (2.32%), Gnuan (0.41%), Kri(0.38%), Hmong (0.07%) and the rest is 5.5% of the mixed Vietnamese. According to WB definition of indigenous peoples, ethnic minorities will be applied to the non-Lao majority which is about 38.8% of total population. On *biodiversity*, BKK, Khammouane province is also rich in biodiversity and also home to many endangered species. It shares major part of the Nakai–Nam Theun protected area which is an important watershed that feed many Mekong tributaries as well as form the catchment area for Nam Theun 2, the largest hydropower project in Laos. The province also has a few important protected area of which one (Laving-Lavern) is being proposed to UNESCO for being a cultural heritage site. There are many rivers/streams flow through the province to join the Mekong River. Some of these rivers originate in the mountains of this province are Xe Bang Fai River (239 km), Hinboun River, Nam Theun/ Nam Kading River and Nam Ngum River. The province is the center for Nam Theun 2 operation since 2010 and received large amount of water which has been diverted from Nam Kading in BKK to Xe Bang Fi River. The province is also rich in mineral resources, especially tins, salts, limestone, and sand. There are several major operating mining companies in the province, including Mining Development Economy Corporation mining gypsum (in Thakhek), LAVICO Co. Ltd (Laos-Vietnam joint venture) in Xe Bang Fai, V.S.K. Co. Ltd mining limestone in Thakhek, and Lao-North Korea Tin Mines Hinboun. Khammouane is famous for tourism and there are many interesting spots.

11. Khammouane has issues related to soil erosion, land management, biodiversity and forest degradation, and various impacts due to development activities, especially salt mining. Recent development in urban area has been rapid due to rapid development of commercial activities, industrial development, rural migration, and tourism development and waste management has become an issue. In 2008 waste generation was estimated to be 25 tons/day while disposal capacity was about 19 tons/day and most towns (except Thakek) do not have any appropriate disposal site. In 2009, there were 2,339 (1.54 billion LAK) factories comprising 56 large scale, 26 medium scale, and 2,257 small scale and management of industrial wastes (water, solid, and toxic/hazardous) has become a challenge given the limited number of qualified and experience staff, of operation budget, and of vehicles and tools/equipment necessary for monitoring and management.

12. *Savannakhet (21,774 km²; 906,440 people):* Located in the central part south of Khammouane and bordered by Salavanh in the south, the Mekong River and Thailand in the west, and the anamite range and Vietnam in the east. The province comprises 15 Districts: Kaisone Phomvihan (capital), Outhoumphone, Atsaphanthong, Phine, Sepone, Nong,

Thapangthong, Songkhone, Champhone, Xonnabouly, Xaybouly, Vilabouly, Atsaphone, Xayphouthong & Phalanxay. This is the largest province. About 60% of land is covered by forests. A wide variety of ethnic groups are found in the province: Lowland Lao, Phouthai, Thai Dam, Katang, Mangkong, Vali, Lava, Soui, Kapo, Kaleung and Ta-Oi. In addition, many Vietnamese and Chinese descendants live in the province as well. Savannakhet has long been a center of trade and power. The province is well noted as the birthplace of the Honorable Kaisone Phomvihane, first Secretary of the Lao People's Revolutionary Party and co-founder of the Lao PDR. His house and a museum documenting his life achievements can be visited in Savannakhet Town. The area was once inhabited by dinosaurs as evidenced by the bones found in Bang Tang Wai Village and the giant footprints found in Phalanxay, which are documented in the Savannakhet Dinosaur Museum. Remnants of an ancient civilization can be seen at the Stone temple, "Heuan Hin" a pre-Angkorian building located 40km downstream from town along the Mekong. That Ing Hang Stupa, originally built more than 1,000 years ago and later rebuilt by King Saysethathirath in the 16th century, is the province's most important religious site. Also of interest is the historic library, *Hortay Pidok*, which is believed to have been built in the 18th century and was traditionally used to house old "Bai Lan" Buddhist scriptures. Of more recent history is the section of the *Ho Chi Minh Trail* which passes through Savannakhet. Old tanks, guns and other war equipment left behind on the trail can be seen near villages on Route 9 near the Vietnam border. The Phouthai ethnic group, known for its unique silk and cotton weaving, claims its origin in the province's Vilabouly District. The Katang ethnic group, which is loved for its famous folk song, Lam Tang Wai, also has traditional lands in Savannakhet. For nature enthusiasts, trekking in Dong Phou Vieng National Protected Area (NPA) provides an opportunity to see rare Douc and Silvered Langurs. Phou Xang Hae NPA has a population of wild elephants as well as distinctive rocky outcrops and vistas. The Eld's deer, once considered to be extinct in Laos, were rediscovered in 2002 in Xonbouly District and are revered by local villagers. The Province is a hot spot for crocodiles, which inhabit the confluence of the Champhone and Xe Bang Hieng Rivers. Hundreds of stump-tailed macaques, considered sacred by locals, are easily spotted in the 4-hectare Monkey Forest. Giant Asian soft shelled turtles, also considered sacred, can be easily seen in Ban Done Daeng. In Dong Na Tad Provincial Forest, snakes, monkeys and old-growth forest are well protected by the villagers for spiritual reasons. Locally guided tours to the area are available. *Ethnic Groups:* The major ethnic groups residing in the province include Lowland Lao, Phouthai, Katang, Makong and other minority such as Vali, Lava, Soui, Kapo, Kaleung and Ta-oi. However, in the 2000 census, only three ethnic groups were listed, Lowland Lao, Phouthai, and Brou, the only ones recognized by the provincial government. The Brou, however, are a diverse people with various dialects and cultures. According to provincial data 2014 regarding ethnic group, SVK has 4 main ethnic groups including Lao majority and some other minorities with the total population of 916,308 people including 481,471 women (52.54%) is women. According to WB definition of indigenous peoples, ethnic minorities will be applied to the non-Lao majority which is 228,893 people (less than 25%) of total population. SVK has experienced rapid economic growth in recent years. During the last five years, the province's economy growth at a rate of 10.5% a year. This is significantly higher than the growth rate of the whole country during the same period (6.8% per year). On *biodiversity:* There are many protected area and protection forest are in SVK (Sithouane PFA, Dong Phou Vieng, Xe Bang Nouan NPA, Dong Sithouane PFA, Phou Xang He NPA). About 29% of the land area

of Savannakhet Province has been gazetted for conservation and protection at the national level (IUCN 1997). There are also many bird species in the province. Many rivers flow across Savannakhet Province. The most important of these rivers are the Mekong, Xe Bang Hiang, Xe Bang Fai, XeNoy, Xe Champhone, Xe Sansoy, Xe Lanong, Xe Pone, and Xe Thamouak. Savannakhet Province is also the location of one of Lao PDR's first Ramsar-listed Wetlands, Xe Champhone. The rivers and wetlands provide an important habitat for aquatic species, as well as a basis for irrigation system development and electricity generation. The province already has existing irrigation schemes, including Nongtao Lake, originally constructed for rice paddy irrigation. Studies for five hydropower projects have been conducted. These hydropower projects are generally a joint venture between the GoL, which takes a stake in the projects, and the investment companies. Water supply is also an issue in SVK, one of the country's drier and hotter provinces. There are concerns on possible connection between the growth of the plantation industry (especially sugarcane, rubber and eucalyptus) and changes to their water resources. SVK is also rich in mineral resources. Sepon mine, situated about 250 miles (400 km) southeast of Vientiane, is the largest mine in Laos, with reserves of copper and gold. In the 1980s, Laotians panned for gold here using pieces of shrapnel and aircraft wreckage. Early exploration occurred in 1990 by Australian mining company CRA, which was subsequently awarded a contract. It is now operated and 90% owned by MMG Limited. Sepon became the country's first significant foreign mining interest when it opened in 2002. Other mining companies operating in the province (2008) include: Wanrong Cement III, Lane Xang Minerals LTD (Vilabuly District), Lane Xang Minerals Ltd (Vilabuly District), Lao State Gypsum Mining Co Ltd (Champhone District), and Savan Gypsum Mining Co. (Champhone District). Along with Bolikhamsai and Khammouane provinces, it is one of the main tobacco producing areas of Laos. SVK is well known for fossil sites. There are five fossil sites in the province. The best known of the Cretaceous fossil sites is that of Tang Vay, 120 km northeast of Savannakhet, which dates to 110 million years ago. The site was discovered by a French geologist (Josué Hoffet) in 1936 and was explored by a team of French expert in 1990s. Tree fossils (*Araucarioxylon hoffetti*), turtles, and a sauropod, *Tangvayosaurus hoffetti* were discovered. Aptian age findings include a *Psittacosaurus*. In Pha Lane, on the banks of the Sê San River, a theropod was discovered. The number of tourist visited Khammouane increased from 25,021 in 2001 to 177,097 in 2009 and it is suggested that an average growth rate of tourism industry is about 50% per year. Recent development in urban area in SVK has been rapid due to rapid development of commercial activities, industrial development, rural migration, and tourism development and waste management has become an issue. In 2012 waste generation was estimated to be , while disposal capacity was about 33.6 tons/day as calculated by the number and quantity of the truck per day in Kayson phomvihan district and most towns (except Kayson phomvihan district) do not have any appropriate disposal site. In 2009, there were 2,339 (1.54 billion LAK) factories comprising 56 large scale, 26 medium scale, and 2,257 small scale and management of industrial wastes (water, solid, and toxic/hazardous) has become a challenge given the limited number of qualified and experienced staff, of operation budget, and of vehicles and other tools/equipment necessary for monitoring and management.

13. *Champassak (CPS)(15,415 km²; 652,552 people)*: Located in the southern part of Laos (about 610 km from Vientiane capital) at the confluence of the Mekong River and the

Sedon River. The province is bordered by Salavanh in the north, Cambodia border in the south, Thailand in the west, and Attapue in the east. It comprises 10 Districts: Pakse (capital), Sanasomboun, Bachieng Chaleunsouk, Pakxong, Pathoumphone, Champasack, Sukhuma, Mounlapamok, and Khong. The province is one of the main political and economic centers of Lao PDR. Most people of lives along the Kong Se Done River bank. There are ancient temples which were influenced the Angkor people who settled in Cambodia. To the south of Pakse, the provincial capital is the Wat Phou Temple Complex, a UNESCO World Heritage Site. In the southern region of the province is Done Khong and the Four Thousand Islands, or Si Phan Done in Lao. On this stretch of the Mekong is the largest waterfall by volume in Southeast Asia (Khone Phapheng), as well as Li Phi waterfall noted for its cascading emerald green waters. One hydropower project is being constructed at one of the many channels (DonSahong). The endangered freshwater Irrawaddy Dolphins inhabit the Mekong near the Lao-Cambodian border and can be observed from locally chartered boats. There are many different minorities in Champasack who have their own language, culture and lifestyles. Champasack is rich cultural, historic and natural heritage.

14. *Sekong (SK) (7,665 km²; 97,900 people)*: Located in the southern part of Laos and bordered by Champassak in the west, Salavanh in the northwest, Vietnam in the east, and Attapue in the south. The province comprises 04 Districts: Lanarm (capital), Kaleum, Dakcheung, & Thateng. Majority of people follow the unchanging lifestyle of traditional farming. Sekong is well known for its unique textile patterns, which consist of multicolored line patterns created from a hip loom. Although many of the groups produce beautiful weavings, the Nge ethnic group is especially renowned for its works, as well as the Alak for their traditional Lao skirts (sin). With 14 distinct ethnic groups belonging to the Mon-Khmer linguistic family this province is probably the most ethnically diverse in southern Laos. The Katu and Talieng are the largest ethnic groups in the province and are noted for their unique religious practices that mix animism and ancestor worship. Overall, the Sekong River valley is characterized by a landscape of a fertile plain patterned with a patchwork of rice paddies and fruits orchard. Sekong has tropical forests and home to many rare species of flora and fauna. Sekong Province is one of the least explored provinces in Laos due to the rugged landscape and mountainous terrain that rises to the Dacheung Plateau. The Sekong River bisects the province and flows south into Cambodia. Occasionally, freshwater dolphins migrate up the Sekong right up to Sekong Town. The province also has many cascading waterfalls. Tad Hia, Tad Faek and Tad Se Noi (or Tad Hua Khon) waterfalls are the most convenient to visit from town and offer opportunities for swimming, trekking and village visits. Another waterfall not to be missed is the Nam Tok Katamtok, which originates from the Huay Katam River deep in the jungles of the Bolaven Plateau. Xe Xap National Protected Area (1,335 km²) includes part of the southern Annamite Mountains and is mostly steep terrain with high plateaus of about 1,400m.

Annex 6: Minutes from Public Consultations



LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

Mekong Integrated Water Resource Management Project (M-IWRMP): Addition Financing

Minutes of Public Consultation and Disclosure On Environment and Social Safeguard Management Framework (14 December 2016, 8:30 am to 12:00 am) Thakhek District, Khammouane Province, Lao People's Democratic Republic

1. Introduction

The consultation meetings and discussions on Environment and Social Safeguard Management Framework involved a series of disclosure activities conducted by M-IWRMP with regard to the proposed Additional Financing of M-IWRMP.

This is to ensure the proper application of project safeguard policies and guidelines on all subproject related activities. The disclosure meeting and consultation was organized to discuss practices that would minimize the negative impacts to activities.

2. Participants

The meeting was held at the PAFO meeting room of Thakhek District, Khammouane Province at 8:30 am. The meeting was chaired by Mr. Dethsackda Manikham Deputy of PAFO of Khammouane Province and Mr. Khammay Vonsathien Deputy Director of DOI. The rest if the attendees included:

- Representative of Department of Finance
- Representative of Department of Planning and Investment
- Representative of Department of Agriculture and Forestry
- Representative of Department of Lao Front
- Representative of Department of Lao Women Union
- Representative of Department of Nature Resource and Environment
- Component Managers from MIWIRMP

(Total 60 p.14 women).

3. Objective of the Meeting

The specific objective of the meeting is to conduct **Public Consultation and Disclosure on Environment and Social Management Framework of MIRWMP**.

4. Activities and Outputs

Participants were given an overview of M-IWRMP the project by Mr. Khamhou Phanthavong Component 3.1.2 Manager (M-IWRMP).

- Objectives of the Consultation and Disclosure Meeting
- Project Description of MIWRMP
- Project Objectives of the Additional Financing
- Component Activities
- Implementation Arrangements
- Current Implementation Status/Progress Report on the Original Financing

5. Presentation on MIWRMP Environmental and Social Management Framework (ESMF): Mr. Vic Macasaquit, Implementation Support Consultant-MWIRMP

Mr. Macasaquit presented the following safeguard framework:

- A. Presentation of Environmental and Social Management Framework (ESMF):
- B. Presentation on Compensation and Resettlement Policy Framework (CRPF):
- C. Presentation on the Ethnic Group Planning Framework (EGPF):

4.3 Open Forum – Comments and Suggestions

During the open forum, Mr. Khamhou Phanthavong asked the participants to raise their concerns or issues on the implementation of the MIWRMP Additional Financing, particularly their questions or clarifications on the Safeguard Documents presented earlier.

Question Number 1: Representative from the Department of Nature Resources and Environment of Khammouane province

It was recounted in one of the new floodgates constructed, the condition in the village during the rainy season did not improve. It was recalled that prior to the construction of the new floodgate, the village was flooded for three days. After the construction, the flooding worsened to two (2) weeks. This issues were raised and reported by the farmers to DAFO/PAFO and no response or actions taken to remedy the situation. It was requested by the participants that this kind of construction of projects shall conduct feasibility study which would also focus on the possible environmental and social effects of a project.

Response to Question No. 1:

The project team clarified to the participants that the new constructed floodgate was not funded under MIWRMP but from the government funds thru Provincial Agriculture and Forestry Office in which the financing, construction and implementation was done by a Private construction firm. The flooding was due to the coffer dam that was first built to stop and control the flow of the water during construction which was not removed after the construction of the floodgate.

The participants were also informed that under MIWRMP original financing, no new floodgates were constructed, all of the 10 floodgates were only rehabilitated and improved, this will be similar to the Additional Financing wherein the 5 floodgates will also be rehabilitated and improved. A series of consultations were conducted in the target villages in order to get their views on the proposed rehabilitation and improvement of the floodgates. The results of the series of consultation meeting with the villages considered in the preparation of a Detailed Design of the Floodgates funded under MIWRMP. A Water User's Association was also established and being strengthened under MIWRMP to ensure the proper utilization and control of the floodgates improved by the Project with the technical support from DAFO.

As presented earlier the Safeguard Framework ensures that any grievance or complaints from the villages will properly address and documented by the Project thru the assistance from their respective local leaders; District government; PAFO/DAFO offices and Component Management Units of the MIWRMP.

Question Number 2: Representative from PAFO of Xekong Province:

The location of land to be utilized for the office and hatchery construction should be clear. It was found that in some villages, the land used was that of the village authority, others use the land of farmers, while some other villages destroy the forest to serve as location. In Xekong province, there are many ethnic minority groups.

Response to Question No. 2:

The project team responded and informed the participants that the Component 3.2: Fishery Management would rehabilitate and improve the three (3) existing hatcheries in Km8 and Banna in Champassak Province and Hatchery in Sekong Province and new construction of a hatchery in Attapeu Province. As for the construction of new hatchery in Attapeu, there will be no land acquisition nor affected households as the land for the hatchery is vacant public land. The Component 3.2 also has hired a Consultant to prepare an Environmental Management Plan (EMP) for the Attapeu hatchery that would address any possible issues or concerns on environment and social. The preparation of EMP also would conduct series of consultation meetings with neighboring villages and communities to ensure that they are properly informed and support the project.

Should there be any ethnic groups identified near the location of the Attapeu hatchery, the Component 3.2 Management Unit together with DAFO/PAFO and thru the assistance from LFNC would have to follow the policies and procedure from Ethnic Group Planning Framework.

It was also reiterated that Component Management Units would apply a ‘*negative list*’ with a number of non-eligible activities to avoid adverse social and environmental impacts and also the social screening process to identify possible social impacts of the project activities in the communities.

Question Number 3: Representative from Lao Front National Construction (LFNC) of Xekong province:

As earlier mentioned, there are many minority ethnic groups in Xekong province who have different culture and languages. Prior to project implementation, it was suggested that this ethnic groups have a clear understanding of each project activity, particularly their role in the project and elements of participation therein.

Response to Question No. 3:

As indicated in the ESMF, the Component Management Units together with the local authorities and other line agencies to include LWU and LFNC will conduct a free, prior and informed consultations with potentially affected ethnic groups and to establish their broad community support for the identified activities in their village.

Question Number 4: Representative from the Lao Women’s Union (LWU) of Attapeu province:

Before project implementation, the Lao Women Union and the Lao National Front Construction should be involved in order to assist in addressing some issues of women and ethnic groups in the target villages.

Response to Question No. 4:

The project team would ensure that LWU and LFNC be involved or well informed of the activities in the villages and would request their assistance and support for the implementation of the project.

Closing Remarks : Mr. Khammay Vongsathien, Deputy Director of the Department of Irrigation

Deputy Director Vongsathien stated that in many government projects, conflict abounds. The focus of all project activities should be directed towards improving the actual situation in each community. In each project activities, there should be public consultation among the target villages and affected persons. The Project would also ensure to comply with the Environment and Social Safeguard Framework of MIWRMP.

The Deputy Director Vongsathien thanked the participants in their attendance and participation in the consultation and disclosure of the ESMF. The meeting adjourned at 12:15 am.

Photos:





LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

**Mekong Integrated Water Resource Management Project
(M-IWRMP): Addition Financing**

**Minutes of Public Consultation and Disclosure
On
Environment and Social Management Framework (ESMF)
(08 December 2016, 8:30 am to 11:30 AM)
DMH Meeting Room, Vientiane Capital, Lao People's Democratic Republic**

1. Introduction

A public consultation and disclosure on the Environment and Social Management Framework of the Mekong Integrated Water Resource Management Project: Additional Financing was held at the Department of Meteorology and Hydrology Meeting Room on 08 December 2016. This consultation and disclosure designed to essentially involve the presentation of the MIWRMP's goals and objectives and presentation of the Environmental and Social Safeguard Management Framework (ESMF) currently being updated for the proposed project additional financing in order to elicit feedback for further enhancements of the project documents.

2. Registration of Participants

The consultation and disclosure started at 8:30 am.

Participants from various agencies have been participated in the event, including representative from 1) the Department of Water Resource; 2) the World Bank; 3) Lao Women's Union; 4) Lao Front for National Construction; 5) PONRE-Vientiane Province; 6) ESIA MoNRE; 7) MPI; and 8) Department of Water Supply, Ministry of Public Works and Transport.. Appendix A provides the list of participants. The program of activities is shown in Appendix B.

**3. Welcome Remarks: Mr. Kingkham Manivong, Deputy Director General of
DWR and Manager of Component 2.1: Water Law**

Mr. Kingkham Manivong, highlighted that the MIWRMP is closely aligned with the Lao Government's Strategy which is a long-term approach towards Integrated Water Resource Development. As mentioned in his remarks, the key principle of the project is multi-stakeholder consultation and participation.

4. Objectives of the Public Consultation and Disclosure: Mr. Ounakone Xayviliya, National Project Manager-MIWRMP

Mr. Ounakone Xayviliya, made the presentation on the progress of the ongoing project and provided rationale for the proposed MIWRMP Additional Financing. His presentation covered the following topics:

- Objectives of the Consultation and Disclosure Meeting
- Project Description of MIWRMP
- Project Objectives of the Additional Financing
- Component Activities
- Implementation Arrangements
- Current Implementation Status/Progress

5. Presentation on MIWRMP Environmental and Social Management Framework (ESMF): Mr. Vic Macasaquit, Implementation Support Consultant-MIWRMP

The presentation aimed to inform the participants on the objectives and application of the ESMF under the MIWRMP Additional Financing. It is the purpose of the ESMF to provide overall guidelines and procedures that would be applied in order to minimize, if unavoidable, adverse environmental and social impacts of MIWRMP Additional Financing supported subprojects and activities. It also ensures that environmental and social issues are duly evaluated in decision-making, planning, implementation and monitoring and evaluation. The framework is also to reduce and manage possible risks arising from the project and provides a mechanism for consultation and disclosure of information among various stakeholders.

It was also emphasized that the legal framework of Lao PDR and the World Bank constitutes the safeguard policies of MIWRMP Additional Financing.

Mr. Macasaquit explained that the objectives of the MIWRMP ESMF are: (a) to discuss and review with various stakeholders adequate guidance for effectively addressing social safeguard design and implementation of MIWRMP subprojects; (b) for MIWRMP to adopt a community-driven approach in developing and implementing subprojects by encouraging participation among target communities and affected persons; (c) to improve appraisal and safeguard compliance for the duration of the project; and (d) to protect and support indigenous/ethnic groups or vulnerable groups; minimize displacement of people; and ensure compensation of affected persons where involuntary resettlement is unavoidable.

Mr. Macasaquit also presented the Ethnic Groups Planning Framework (EGPF) and the Compensation Resettlement Policy Framework (CRPF) under the MIWRMP Additional Financing.

6. Open Forum and Discussion

- a) **Question and Clarification:** Representative from Lao Front National Construction (LFNC) inquired on whether the Project incorporated the regulation and decree with regards to the provision of alternative livelihood for affected ethnic groups in some of the project areas.

Response: Mr. Macasaquit informed the representative from LFNC that the ESMF and the EGPF considered supporting alternative livelihood activities for affected ethnic minority groups. It was also explained that the EGPF would focus on consultation to make sure that the ethnic groups have an opportunity to voice their concerns and to participate in and benefit from the Project. Under Component 3.1.2 and Component 3.2 the provision of small-scale livelihood demonstration activities (which will be selected through participatory planning with affected ethnic minority groups), including but not limited to aquaculture, agriculture and livestock demonstration activities, extension services in order to mitigate potential negative impacts.

Question and Clarification: Representative from the Department of Water Supply under the Ministry of Public Works and Transportation raised their concerns on the provision or implementation of water supply at the community level, particularly for C3.1.1: River Basin Management as it may not follow certain procedure in construction of water supply. The activity for water supply may need clearance or technical assistance from the Department of Water Supply.

Response: Mr. Macasaquit informed the participants that Component 3.1.1: River Basin Management and C3.2: Fishery Management has prepared guidelines on Community Rural Investment; Rural Infrastructure and Alternative Livelihood for proper guidance and ensure compliance on environment rules and regulation of Lao PDR that would also mitigate any negative impact on environment. Also mentioned “negative list” which identifies activities that would not be funded by C3.1.1. However, Mr. Macasaquit will inform Component 3.1.1 and also C3.2: Fishery Management to comply with the rules and regulations for implementing water supply activities in the community. For any new construction of water supply schemes at the community level, we will ensure to contact both the Department of Water Supply under MPWT (for water supply schemes in the small town) and Nam Saat center under MOH (rural water supply). Both agencies will be consulted and asked to provide technical inputs to the design and construction, to help ensuring the quality of works.

7. Next Steps and Suggestions

Mr. Ounakone has informed the participants of the next steps and actions to be taken by the Project related to the ESMF:

- i. Disclosure of the Safeguard Documents at the World Bank website and DWR-MONRE website
- ii. Translation of the Safeguard documents into the Lao language
- iii. Distribution of the Safeguard Documents (English and Lao version) to the stakeholders in the Province
- iv. Involvement of LFNC and Lao Women's during project implementation of MIWRMP AF.

8. Closing Remarks

The meeting was adjourned at 11:30 AM with Mr. Kingkham Manivong thanked everyone for their active participation and contributions.

Annex 7: Interim Guidelines on the Application of Safeguard Policies to TA (Do not Translate)

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 Bank¹⁴ <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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January 2014

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 types¹⁵:

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:

¹⁴ 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.

¹⁵ 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.

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 impacts¹⁶?

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?

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

¹⁶ Examples might include installation of new equipment without physical infrastructure, or removal of old environmentally sensitive equipment.

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 are 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 TA¹⁷, 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.

¹⁷ See paragraph 8(c) of OP 8.40 of Technical Assistance.

Table 1 Indicative Safeguard Approaches to the Four Types of TA Activities¹

Typology of TA	Examples	Potential Environmental and Social Implications	Indicative EA Category	Safeguard Policies that May be Triggered	Indicative list of Instruments to be Prepared Prior to Appraisal or During Implementation (as appropriate for the specific project)
<i>Type 1: Building client capacity</i>	Straight forward capacity building activities: staff training, study tours; recruitment and payment of salaries; supply of office equipment etc.	These activities usually do not have potential adverse environmental and social implications or risks. Depending on the mandate of the institutional recipient of capacity building, there may be reputational risks if the Bank is perceived as assisting indirectly in the implementation of a national policy framework that is not attuned with Bank safeguard principles.	C	None	None
<i>Type 2: Assisting in preparation of policies or programs or plans or legal frameworks etc.</i>	Examples may included: <ul style="list-style-type: none"> • Water resources management/ planning studies; • River basin management studies; • National or regional emission studies; • Biodiversity conservation studies; • Defining emission or discharge standards etc. • Developing forestry regulations; • Supporting the drafting of land laws and land acquisition laws; • Drafting a strategy for private sector to finance transport infrastructure. 	These types of activities may have significant down-stream impacts. For example, forestry regulations may affect access to forest resources. If regulations lead to future conservation areas, involuntary resettlement and seasonal access to forest resources may be involved. IP communities living close to forest areas that are likely to be affected by the new regulation, and land issues might be involved. Some forest areas can be important natural habitats, include water resources or home to endangered species. For instance, the new regulation may consider expanding buffer zones to rehabilitate the connectivity between natural habitats. Similar analysis could be applied to the other examples cited.	B or C	Any or all of OP 4.01; OP 4.04; OP 4.36 ; OP 4.11; OP 4.12; and OP 4.10.	Analysis of potential environmental and social issues and how they will be addressed; Draft TOR for the proposed studies or SESA if relevant. IPPF if policies, programs or plans will potentially have significant implications for indigenous peoples.
<i>Type 3: Land use planning or natural resources management (NRM)</i>	Coastal Zone Management, Urban Planning, Zoning, Agricultural and Rural Development Planning etc. Please see the 2010 Interim Guidance Note on Land Use Planning for more details.	Coastal resources management plans may affect local and IP communities; access restriction to forest and marine resources; Plans may lead to future land acquisition and resettlement for strengthening or establishing new protected areas; Concerns on sensitive sites within or in the periphery of the urban area, e.g., historical sites, natural habitats. Future urban planning may cause induced impacts on use of resources in urban periphery. Relocation	B or C	Any or all of OP 4.01; OP 4.04; OP 4.36 ; OP 4.11 ; OP 4.12 IR; ² and OP 4.10 IP.	Any or all of the following instruments: Draft TOR for SESA; Draft Frameworks -

¹ The above, including the indicative EA category and indicative list of instruments to be prepared prior to appraisal or project implementation, are provided solely for the purpose of illustration. The actual approach used in a given project will depend upon the specifics of project design and the outcome of discussions with regional safeguards advisors, OPCS and LEG, as appropriate.

² For land use planning activities see the “Interim Guidance on Land Use Planning” available on the OPCS Safeguards Webpage.³ In the case of TA in support of *feasibility studies*, it may be premature to prepare a full suite of safeguard instruments by appraisal or even during implementation of the TA project. 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.