

**COMBINED PROJECT INFORMATION DOCUMENTS / INTEGRATED  
SAFEGUARDS DATA SHEET (PID/ISDS)**

**Additional Financing**

Report No.: PIDISDSA19669

Date Prepared/Updated: 02-Mar-2017

**I. BASIC INFORMATION**

**A. Basic Project Data**

|  |  |                                    |                              |
|--|--|------------------------------------|------------------------------|
| <b>Country:</b>  | Lao People's Democratic Republic   | <b>Project ID:</b>                 | P159447                      |
|  |  | <b>Parent Project ID (if any):</b> | P104806                      |
| <b>Project Name:</b>                                   | Additional Financing for Mekong Integrated Water Resources Management (Lao PDR) (P159447)    |                                    |                              |
| <b>Parent Project Name:</b>                            | Mekong Integrated Water Resources Management (P104806)                                       |                                    |                              |
| <b>Region:</b>   | EAST ASIA AND PACIFIC  |                                    |                              |
| <b>Estimated Appraisal Date:</b>                       | 20-Feb-2017  | <b>Estimated Board Date:</b>       | 06-Jul-2017                  |
| <b>Practice Area (Lead):</b>                           | Water  | <b>Lending Instrument:</b>         | Investment Project Financing |
| <b>Borrower(s)</b>                                     | Ministry of Finance  |                                    |                              |
| <b>Implementing Agency</b>                             | Ministry of Natural Resources and Environment, Ministry of Natural Resources and Environment |                                    |                              |
| <b>Financing (in USD Million)</b>                      |  |                                    |                              |
| <b>Financing Source</b>                                |  |                                    | <b>Amount</b>                |
| International Development Association (IDA)            |  |                                    | 25.00                        |
| Financing Gap  |  |                                    | 0.00                         |
| Total Project Cost                                     |  |                                    | 25.00                        |
| <b>Environmental Category:</b>                         | B-Partial Assessment   |                                    |                              |
| <b>Appraisal Review Decision (from Decision Note):</b> | The review did authorize the team to appraise and negotiate                                  |                                    |                              |
| <b>Other Decision:</b>                                 |  |                                    |                              |
| <b>Is this a Repeater project?</b>                     | No   |                                    |                              |

**B. Introduction and Context**

**Country Context**

The Lao PDR has a population of 6.5 million. With two thirds of its population living in rural areas, the Lao PDR is an agrarian economy with a low population density. Nevertheless, the country is urbanizing rapidly, with the urban population increasing by 40 percent between 2005 and 2015. The Lao economy has expanded strongly in recent years, largely based on its natural resources. Gross Domestic Product (GDP) growth averaged around 8 percent a year since 2000 with Gross National Income (GNI) per capita reaching US\$1,730 in 2015, making the Lao PDR a lower-middle income country. The country has met its Millennium Development Goal (MDG) of reducing extreme poverty to below 24 percent by 2015, and living conditions have improved significantly.

It has become apparent that while the development of natural resources will continue to be a key driver of economic growth, without an improved system to sustainably manage the natural capital, the social and environmental costs will be irreparable and may soon outweigh the economic benefits of exploitation and impose irreversibility that reduce future opportunities. The yearly droughts and floods are also increasingly recognized by the Governments as core challenges to the pressing priority to achieve higher levels of economic and social development. The proposed Additional Financing would support the implementation of improved water resources management at both the national and regional level.

### **Sectoral and Institutional Context**

The Lao PDR is a land-locked country located almost entirely within the Mekong River Basin. The other countries with territory within the Basin are China, Myanmar, Thailand, Cambodia, and Vietnam. In 1995, the four lower Basin countries (Lao PDR, Thailand, Cambodia and Vietnam) established the MRC, which helps to coordinate sustainable development in the Basin. The Lao PDR is a mountainous and water rich country with significant hydropower potential, for both domestic use and export to neighboring countries. In the central and southern part of the country, the Lao PDR has a number of fertile floodplains where the large tributaries from the mountainous zones meet the mainstream of the Mekong River. These floodplains have considerable potential for irrigated agriculture but are also subject to extensive flooding. The Lao PDR is attempting to develop its hydropower and agricultural potential in a sustainable manner that protects its rich fisheries, wetlands, and aquatic resources.

The current water management legal regime is founded on the 1996 Water Law, which was formulated before the advent of rapid hydropower development and the establishment of MONRE in 2011. Currently, each water-using sector—hydropower, agricultural, urban, etc.—manage water independently without an overall planning framework. The government typically responds to floods and droughts on an ad-hoc basis and on an emergency manner instead of undertaking the necessary long-term measures. Preliminary river basin plans to create river basin committees have been attempted by MONRE, but without the supporting foundation this has proved difficult. The Lao PDR government is now emphasizing multi-sector water management based on a river basin management framework. The Ministry of Energy and Mines (MEM) has recently issued a “Policy on Sustainable Hydropower Development” which stresses the need to consider hydropower within a broader water resources management framework. The Lao PDR government has recognized the need to update the legal and regulatory framework, and is currently preparing an amended Law on Water Resources which is scheduled for consideration by the National Assembly (NA) in 2017.

## **C. Proposed Development Objective(s)**

### **Original Project Development Objective(s) - Parent**

to establish key examples of integrated water resources management practices in the lower Mekong Basin at the regional, national and subnational levels, thus contributing to more sustainable river basin

management in the lower Mekong.

### **Proposed Project Development Objective(s) - Additional Financing**

The Project Development Objective is to improve water resource and fisheries management in selected areas of the Lower Mekong Basin.

#### **Key Results**

The Parent project focused on developing the building blocks for water resources management, promoting sustainable irrigation and flood control infrastructure, and introducing community fisheries management to the Lao PDR. The AF will further develop the building blocks for water resources and create an integrated national water resources management systems; support the further expansion of irrigation and flood control infrastructure; and allow for the completion of the community fishery management activities. The AF will support the following activities related to water resources management:

- i) Formulate and apply key implementing regulations based on the amended Law on Water Resources;
- ii) Establish a state-of-the art national water quality laboratory and support a nation-wide water quality and aquatic eco-system monitoring program;
- iii) Develop comprehensive water resources modelling packages for ten priority river basins covering approximately three-quarters of the country, and undertake water resource assessment to determine water availability under different climatic conditions.
- iv) Increase hydro-met coverage from 25 stations under the Parent Project to 60 stations;
- v) Develop comprehensive river basin management plans in four priority river basins accordance with the revised Law on Water Resources, and support the operation of River Basin Coordinating Committees.

These activities will result in a functional national level water resources management system under the auspices of MONRE that will allow the country to sustainably develop and manage its hydropower, irrigation, and water supply resources while protecting the environment and reducing flood and drought risks associated with climate change. The AF will also support the following activities related to agricultural and fisheries development:

- i) Increase the number of rehabilitated irrigation schemes from 40 under the Parent Project to 59 schemes with additional financing, with an increase in area from 5,415 ha to 7,815 ha. The number of beneficiaries is expected to increase from 31,007 to 44,032. The AF will also pilot a new approach to rehabilitation that will allow for the diversification of crops beyond traditional rice cultivation.
- ii) The areas with improved flood control infrastructure equipped with fish passage facilities will increase from 11,148 ha under the Parent Project to 14,500 ha with additional financing, and the number beneficiaries will increase from 17,779 people to 32,511.
- iii) Allow for the completion of community fishery activities under the parent project which benefit approximately 50,000 primarily rural, poor and indigenous communities in southern Laos.

### **D. Project Description**

The Project was originally approved on February 8, 2012 and is currently scheduled to close on March 31, 2018. The Project is the first project in the Mekong Integrated Water Resources Management (IWRM) Series of Projects (SOP). The SOP also includes the Mekong IWRM Phase 2 Project in Vietnam (P124942) which was approved in December 2013, and the Mekong IWRM Phase 3 Project in Cambodia which was approved in May 2016.

The general description of the Project components are provided below. Component 1 is implemented by the Mekong River Commission (MRC) through an US \$8 million grant provided by International Development Association (IDA-H7620). Components 2 and 3 are implemented by the Lao PDR government. The additional financing is for Components 2 and 3 only. With the approval of \$25 million in additional financing, the project closing date will be extended to March 31, 2021.

**Component 1 Regional Water Resources Management:** Support implementation of bilateral transboundary project and pilot activities for IWRM in the four riparian countries of the Lower Mekong Basin (Thailand, Lao PDR, Cambodia, and Vietnam), including support to communications and dialogue.

**Component 2 National Water Resources Management:** Improve institutional capacity for IWRM in the Lao PDR, including strengthening hydro-meteorological systems, water quality monitoring, and water resource modeling. The component also contributes to helping the Lao PDR reduce disaster risk and respond to climate change by improving hydro-meteorological services, as well its flood and drought management capacity.

**Component 3 Improved Floodplain and Aquatic Resources Management in Regionally Significant Areas:** Support river basin planning, irrigation and fisheries management in areas of regional significance in the Lao PDR for regional environmental benefits and the enhancement of rural livelihoods in pilot areas.

**Component Name:**

Regional Water Resources Management

**Comments ( optional)**

This component is implemented by the MRC through an US \$ 8 million IDA grant (SDR equivalent) to: i) support the MRC in facilitating IWRM dialogue between the Lao PDR, Cambodia, Thailand, and Vietnam, and implement pilot activities that address urgent IWRM transboundary issues; ii) support the MRC in assessing an approach for environment impact assessment in the lower Mekong basin; iii) support the MRC in facilitating dialogue on and communication of IWRM principles to different stakeholders; and iv) support the MRC in facilitating implementation of other parts of the Mekong IWRM series of projects. No additional financing is requested for this component.

**Component Name:**

National Water Resources Management (Component 3).

**Comments ( optional)**

The Parent project provided US \$5,720,000 in financing, and the additional financing will provide another US \$11,000,000, for a total component cost of US \$16,720,000.

The subcomponents are as follows:

- 2.1 Water Law and Regulations
- 2.2 Water Quality and Ecosystems
- 2.3 Water Resource Analytics
- 2.4 Meteorology and Hydrology
- 2.5 Project Management

**Component Name:**

River Basin and Aquatic Resource Management

**Comments ( optional)**

The Parent Project provided US \$12,280,000 in financing and the additional financing will provide

another US \$14,000,000, for a total component cost of US \$26,280,000. The subcomponents are as follows:

- 3.1.1 River Basin Management
- 3.1.2 Irrigation and Drainage
- 3.2 Fishery Management

**E. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

Project locations for each of the project components are summarized below. The Project is mainly structured around river basins and will focus on the ten priority river basins identified by MONRE. In addition, the Fisheries component activities take place in three provinces located in the south of the country. The ESMF and Project Paper has maps showing the locations of the river basins.

2.2 Water Quality Monitoring: Nam Ngum, Nam Niep, Xe Bank Gei, Xe Bang Hien, Xekong.

2.3 Water Resource Modelling: Nam Ou, Nam Tha, Nam Xam, Nam Ngum, Nam Niep, Nam Thuen, Xe Bang Fei, Xe Bang Hien, Xedone, and Xekong.

2.4 Hydro-Met Stations: Nam Ou, Nam Kan, Nam Xam, Nam Ngum, Nam Niep, Xe Bang Fei, Xedone, and Xekong.

3.1.1 River Basin Planning: Nam Ngum, Nam Niep, Xe Bang Fei, Xe Bang Hien,

3.1.2: Irrigation and Flood Control: Xe Bang Fei, Xe Bang Hien.

3.2: Fisheries: Champassak, Xekong, and Attepeu Provinces.

General characteristics of the six key river basins where there will be significant physical works are described below.

Xai Bang Hieng (XBH) and Xai Bang Fei (XBF) are two large basins located in the central part of the Lao PDR and cover most of Khammoune and Savannakhet provinces. Due to large water flows from high terrain along the Vietnam border (the Anamite Range) to the Mekong River during wet season, flash flooding and river bank erosion is a key issues. These floodplains also serve as important breeding grounds for migratory fish 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 in a manner designed to accommodate fish migration. Findings from consultations with the local communities suggested that flooding is a priority concern in the lower XBF, and there is also a need for more investment in small rural water supply systems in the upland areas. The XBH is the largest basin in Lao PDR and covers most of Savannakhet province. Savannakhet is Laos' second largest city and a hub for industry and agriculture. The lower part of XBH includes a Ramsar wetland site, Xe Champhone which is under development pressure due to agricultural development, changes in water flows, and water quality issues related to pesticides.

Xekong and Xedone river basins are located in the southern part of Lao PDR. The Sekong basin (22,550 km<sup>2</sup>) drains water from the Anamite range along Vietnam border and flows through Attapeu and Champasak provinces into Cambodia before joining the Mekong River in Cambodia. There are some hydropower projects under operations, and many more are planned in the future. The Sekong is considered the last major mainly undammed tributary in the Mekong basin. The basin suffers from mining activities, and frequent flood related disasters. The Xedone basin (7,220km<sup>2</sup>) is located next to XBF to the south and cover parts of Salavanh and Champasak provinces. Some development has

taken place in the basin including two hydropower projects under operations, with several more in the planning stage. Both basins are home to large groups of ethnic minorities, mainly living in the upland areas.

Nam Ngiep and Nam Ngum river basins are located in central Laos. Nam Ngiep basin (4,577 km<sup>2</sup>) covers part of Bolikhamxay, Vientiane, and Xaysomboun provinces, and is very mountainous with small-scale agriculture as the major economic activity. Nam Ngum is a large basin (16,986km<sup>2</sup>) covering parts of Vientiane, Xaisomboun, and Xiangkhoang provinces. Nam Ngum reservoir was the first large-scale reservoir constructed in the Lao PDR and serves an important role in providing flood protection and irrigation water for the heavily populated Vientiane floodplains. Hydropower development in the Nam Ngum basin is proceeding rapidly, and the multi-purpose operation of hydropower reservoirs is a key issue. Water quality both within Nam Ngum reservoir as well as downstream has become a major issue, with frequent fish kills due to the release of anoxic water.

#### **F. Environmental and Social Safeguards Specialists**

Juan Martinez( GSU02 )

Peter William Crawford( GEN2B )

#### **II. IMPLEMENTATION**

Responsibility for implementation is shared between the Component Management Units (CMUs) responsible for implementation at component level and Project Management Unit housed in the Ministry of Natural Resources and the Environment (MONRE) which is responsible for the overall supervision of the Lao PDR activities. The responsible component management units are as follows: 2.1 Water Law and Regulations:-DWR; 2.2 Water Quality Monitoring-Natural Resources and Environment Institute (NREI); 2.3 Water Resources Modelling-NREI; 2.4 Hydro-Meteorology-Department of Hydrology and Meteorology; 2.5 Project Management-DWR; 3.1.1 River Basin Management-DWR; 3.1.2 Irrigation and Flood Control-Department of Irrigation in the Ministry of Agriculture and Forestry (MAF); and 3.2 Fisheries Management: Department of Livestock and Fisheries in MAF.

#### **III. SAFEGUARD POLICIES THAT MIGHT APPLY**

| <b>Safeguard Policies</b>           | <b>Triggered?</b> | <b>Explanation (Optional)</b>  |
|-------------------------------------|-------------------|--|
| Environmental Assessment OP/BP 4.01 | Yes               | 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 |

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|  | <p>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.</p> <p>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.</p> <p>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</p> |
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|                             |     | <p>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.</p> <p>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" (January 2014). 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.</p> |
| Natural Habitats OP/BP 4.04 | Yes | 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   |



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|                    |    | <p>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.</p> <p>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 Campone wetland, and allow the GEF-supported activity to take the lead in developing the wetland management plan around Xe Champone wetland.</p> |
| Forests OP/BP 4.36 | No | <p>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.</p>  |

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| Pest Management OP 4.09                | Yes | No procurement or use of pesticides or fertilizer is expected. However, Component 3.1.2 involves the rehabilitation of irrigation scheme and may increase the use of pesticides and fertilizer. Training will be provided to key staff and farmers on integrated pest management and other options, and monitoring. Efforts will be made to promote the 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 plan to ensure farmers are educated on the regulations and use the chemicals safely.  |
| Physical Cultural Resources OP/BP 4.11 | No  | The project will not impact any known physical or cultural resources. The small scale civil works under the project require only very shallow soil excavation and thus the possibility of chance finds is minimal. The Environmental Code of Practice includes a provision for chance finds.   |
| Indigenous Peoples OP/BP 4.10          | Yes | <p>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).</p> <p>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</p> |

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|                                     |     | <p>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.</p> <p>All OP 4.10 and EGPF requirements for social assessment, free, prior and informed consultations leading to broad community support, preparation of Ethnic Minority/Group Plans, disclosure of these, Grievance Redress Mechanisms and monitoring are fully integrated in the guidelines.</p> <p>The Guidelines were 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.</p> |
| Involuntary Resettlement OP/BP 4.12 | Yes | 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  |

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|  | <p>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.</p> <p>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</p> |
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|  |     | rural infrastructure in order to improve the quality of life and economic opportunities.  |
| Safety of Dams OP/BP 4.37                      | No  | 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. |
| Projects on International Waterways OP/BP 7.50 | Yes | 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.                                  |
| Projects in Disputed Areas OP/BP 7.60          | No  | There are no project activities in disputed areas.  |

#### IV. Key Safeguard Policy Issues and Their Management

**A. Summary of Key Safeguard Issues**

**1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:**

Current Project Safeguard Impacts: The current project finances technical assistance for water resources management, and small scale infrastructure for the following activities: hydro-meteorological monitoring stations, rehabilitation of irrigation and drainage facilities, fish hatcheries, and small community rural infrastructure. There are no potential large scale, significant or irreversible impacts. Section A.4 provides a component by component discussion of experience with safe-guard implementation to-date. There have been no significant safeguard issues or problems encountered in implementation of the current project, which started in 2012.

Safeguard Impacts Associated with Additional Financing: The project components remain unchanged and additional financing will be provided to construct more hydro-meteorological monitoring stations, rehabilitation of irrigation and drainage facilities, and small community rural infrastructure. There are no potential large scale, significant or irreversible impacts associated with the additional financing. Technical assistance to river basin planning and water resources modelling will be scaled up with additional financing under the Project. This is expected to have a positive impact on the sustainability of water resources.

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

Since the project only finances small scale and scattered infrastructure, there will be no indirect or long term impacts in the project areas. Improved water resources management should help improve the long-term sustainability of water and related infrastructure.

**3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.**

Since there are no identified adverse impacts not project-level alternatives were considered. However, the small-scale investments under the project will be considered and selected through a participatory process involving key stakeholders.

**4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.**

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.

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.

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.

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 Savanakhet 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.

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 Savanakhet 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.

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.

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.

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 (KBs), which are clusters of villages. The number of villages in each KB ranges from 3 to 14, and village size typically ranges from 100-150 households per village. Seven of the KBs do not have ethnic minority groups; the other eight KBs have varying degrees of ethnic minorities with variations between villages within a KB.

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.

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.

The development of Fishery Management Plans (FMP) for each KB 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 KB 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 Group Plan will be developed to avoid, minimize, mitigate, or compensate for any adverse effects.

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.

**5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.**

Given the nature of the activities, the stakeholders encompass a wide range of communities residing in project areas described in the project location and salient physical characteristics section. The nature and the location of the activities financed under additional financing remain unchanged under the Project. The key existing safeguard instruments: i) the Environmental and Social Management Framework (ESMF); ii) the Ethnic Groups Planning Framework (EGPF); and iii) the Compensation and Resettlement Planning Framework (CRPF) have been slightly revised to take into account the updated project design. 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 the ESMF. Following additional editorial remarks by the World Bank, the safeguard documents were revised and will be re-disclosed in March 2017.

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. It has been agreed that during the preparation of specific activities, additional consultations will be carried out in close consultation with the local authorities and people likely to benefit and/or affected by the subproject.

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.

### ***B. Disclosure Requirements***

| <b>Environmental Assessment/Audit/Management Plan/Other</b>   |             |
|---|-------------|
| Date of receipt by the Bank   | 15-Dec-2016 |
| Date of submission to InfoShop  | 19-Dec-2016 |
| For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors  |             |
| "In country" Disclosure   |             |
| Lao People's Democratic Republic  | 11-Jan-2017 |
| <i>Comments:</i> All updated safeguard documents were disclosed locally on the DWR website and in Khammoune PONRE provincial office in Lao and English languages on January 11, 2017. Based upon editorial comments received during the appraisal stage, the ESMF will be slightly revised and disclosed in March 2017. |             |
| <b>Resettlement Action Plan/Framework/Policy Process</b>  |             |
| Date of receipt by the Bank   | 15-Dec-2016 |
| Date of submission to InfoShop  | 19-Dec-2016 |
| "In country" Disclosure   |             |
| Lao People's Democratic Republic  | 11-Jan-2017 |
| <i>Comments:</i>  |             |
| <b>Indigenous Peoples Development Plan/Framework</b>  |             |
| Date of receipt by the Bank   | 15-Dec-2016 |
| Date of submission to InfoShop  | 19-Dec-2016 |
| "In country" Disclosure   |             |
| Lao People's Democratic Republic  | 11-Jan-2017 |
| <i>Comments:</i>  |             |
| <b>Pest Management Plan</b>   |             |
| Was the document disclosed prior to appraisal?  | NA          |

|   |    |
|---|----|
| Date of receipt by the Bank   | NA |
| Date of submission to InfoShop  | NA |
| "In country" Disclosure   |    |
| <b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b> |    |
| <b>If in-country disclosure of any of the above documents is not expected, please explain why::</b>   |    |
|   |    |

### C. Compliance Monitoring Indicators at the Corporate Level

|  |     |                                     |    |                                     |    |                                     |
|--|-----|-------------------------------------|----|-------------------------------------|----|-------------------------------------|
| <b>OP/BP/GP 4.01 - Environment Assessment</b>  |     |                                     |    |                                     |    |                                     |
| Does the project require a stand-alone EA (including EMP) report?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |
| If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |
| Are the cost and the accountabilities for the EMP incorporated in the credit/loan?   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |
| <b>OP/BP 4.04 - Natural Habitats</b>   |     |                                     |    |                                     |    |                                     |
| Would the project result in any significant conversion or degradation of critical natural habitats?  | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> | NA | <input type="checkbox"/>            |
| If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?                      | Yes | <input type="checkbox"/>            | No | <input type="checkbox"/>            | NA | <input checked="" type="checkbox"/> |
| <b>OP 4.09 - Pest Management</b>   |     |                                     |    |                                     |    |                                     |
| Does the EA adequately address the pest management issues?   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |
| Is a separate PMP required?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |
| If yes, has the PMP been reviewed and approved by a safeguards specialist or PM?<br>Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist? | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |
| <b>OP/BP 4.10 - Indigenous Peoples</b>   |     |                                     |    |                                     |    |                                     |
| Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA | <input type="checkbox"/>            |

|   |     |                                     |    |                                     |     |                                     |
|---|-----|-------------------------------------|----|-------------------------------------|-----|-------------------------------------|
| Indigenous Peoples?   |     |                                     |    |                                     |     |                                     |
| If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |
| If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?                        | Yes | <input type="checkbox"/>            | No | <input type="checkbox"/>            | NA  | <input checked="" type="checkbox"/> |
| <b>OP/BP 4.12 - Involuntary Resettlement</b>  |     |                                     |    |                                     |     |                                     |
| Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |
| If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |
| Is physical displacement/relocation expected?   | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> | TBD | <input type="checkbox"/>            |
| Is economic displacement expected? (loss of assets or access to assets that leads to loss of income sources or other means of livelihoods)                                    | Yes | <input type="checkbox"/>            | No | <input type="checkbox"/>            | TBD | <input checked="" type="checkbox"/> |
| <b>OP 7.50 - Projects on International Waterways</b>  |     |                                     |    |                                     |     |                                     |
| Have the other riparians been notified of the project?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |
| If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent? | Yes | <input type="checkbox"/>            | No | <input type="checkbox"/>            | NA  | <input checked="" type="checkbox"/> |
| Has the RVP approved such an exception?   | Yes | <input type="checkbox"/>            | No | <input type="checkbox"/>            | NA  | <input checked="" type="checkbox"/> |
| <b>The World Bank Policy on Disclosure of Information</b>   |     |                                     |    |                                     |     |                                     |
| Have relevant safeguard policies documents been sent to the World Bank's Infoshop?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |
| Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |
| <b>All Safeguard Policies</b>   |     |                                     |    |                                     |     |                                     |
| Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to                                       | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA  | <input type="checkbox"/>            |

|  |     |                                     |    |                          |    |                          |
|--|-----|-------------------------------------|----|--------------------------|----|--------------------------|
| safeguard policies?  |     |                                     |    |                          |    |                          |
| Have costs related to safeguard policy measures been included in the project cost?   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | NA | <input type="checkbox"/> |
| Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | NA | <input type="checkbox"/> |
| Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents? | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | NA | <input type="checkbox"/> |

## V. Contact point

### World Bank

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## VII. Approval

|                      |                      |
|----------------------|----------------------|
| Task Team Leader(s): | Name:Greg J. Browder |
|----------------------|----------------------|

| <i>Approved By:</i>       |                             |                   |
|---------------------------|-----------------------------|-------------------|
| Safeguards Advisor:       | Name:                       | Date:             |
| Practice Manager/Manager: | Name: Sudipto Sarkar (PMGR) | Date: 08-Mar-2017 |
| Country Director:         | Name: Ulrich Zachau (CD)    | Date: 11-Mar-2017 |

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