LAO PEOPLE'S DEMOCRATIC REPUBLIC

Peace Independence Democracy Unity Prosperity

Ministry of Public Works and Transport

Lao Southeast Asia Disaster Risk Management Project II

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

April 28, 2026

Prepared by

Department of Waterways, and

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ABBREVIATIONS & ACRONYMS

Acronym	Definition
AF	Additional Financing
AM	Aide-Mémoire
AP	Affected Person
ARAP	Abbreviated Resettlement Action Plan
BKX	Bolikhamxay Province
BMP	Biodiversity Management Plan
C-ESMP	Contractor Environmental and Social Management Plan
CERC	Contingency Emergency Response Component
CFP	Chance Find Procedure
CHA	Cultural Heritage Assessment
CHIA	Cultural Heritage Impact Assessment
CHMP	Cultural Heritage Management Plan
CHS	Community Health and Safety
CMU	Component Management Unit
CoC	Code of Conduct
COVID-19	Coronavirus Disease 2019
CSC	Construction Supervision Consultant
CSO	Civil Society Organization
DAE	Department of Agriculture and Environment
DAFO	District Agriculture and Forestry Office
DD	Detailed Design
DMH	Department of Meteorology and Hydrology
DoH	Department of Heritage (under MICT)
DOP	Department of Planning (Ministry of Finance)
DOW	Department of Waterways (MPWT)
DPWT	Provincial Department of Public Works and Transport
DRM	Disaster Risk Management
E&S	Environmental and Social
EG	Ethnic Group
EGDP	Ethnic Group Development Plan
EGEP	Ethnic Group Engagement Plan
EHS	Environmental, Health, and Safety
EIA	Environmental Impact Assessment
EM-DAT	Emergency Events Database
ERP	Emergency Response Plan
ESCP	Environmental and Social Commitment Plan

Acronym	Definition
ESCOP	Environmental and Social Code of Practice
ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health, and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
FM	Financial Management
FPIC	Free, Prior and Informed Consent
FRD	Financial Resilience Department (Ministry of Finance)
FS	Feasibility Study
GBV	Gender-Based Violence
GoL	Government of Lao PDR
GRM	Grievance Redress Mechanism
ICT	Information and Communication Technology
IDA	International Development Association
IEE	Initial Environmental Examination
IWRM	Integrated Water Resources Management
LMP	Labor Management Procedures
LNMC	Lao National Mekong Committee
LNMCS	Lao National Mekong Committee Secretariat
LNT	Luang Namtha Province
LPB	Luang Prabang Province
MAE	Ministry of Agriculture and Environment
M&E	Monitoring and Evaluation
MICT	Ministry of Information, Culture and Tourism
MOF	Ministry of Finance
MPWT	Ministry of Public Works and Transport
MRC	Mekong River Commission
NBS	Nature-Based Solutions
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NSDRR	National Strategy for Disaster Risk Reduction
ODX	Oudomxay Province
OHS	Occupational Health and Safety
OP 7.50	World Bank Operational Policy on Projects on International Waterways
OUV	Outstanding Universal Value

Acronym	Definition
PAD	Project Appraisal Document
PDO	Project Development Objective
PIU	Project Implementation Unit
PMU	Project Management Unit
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
RETF	Recipient-Executed Trust Fund
ROW	Right-of-Way
RPF	Resettlement Policy Framework
SEA/SH	Sexual Exploitation and Abuse / Sexual Harassment
SEADRM II	Lao Southeast Asia Disaster Risk Management Project Phase II
SEADRIF	Southeast Asia Disaster Risk Insurance Facility
SEP	Stakeholder Engagement Plan
SS-ESIA	Site-Specific Environmental and Social Impact Assessment
SS-ESMP	Site-Specific Environmental and Social Management Plan
TA	Technical Assistance
ToR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organization
UXO	Unexploded Ordnance
VTE	Vientiane Capital

EXECUTIVE SUMMARY

1. Project introduction

The Lao Southeast Asia Disaster Risk Management Project II (SEADRM II, P510690) aims to enhance flood resilience in target areas of Lao PDR and strengthen the Government's capacity for hydrometeorological services and financing post-disaster response.

The achievement of the PDO will be measured by through three distinct outcomes with corresponding results indicators. Two of these indicators contribute to the WBG Corporate Scorecard (CSC) indicator: People with enhanced resilience to climate risks.

Table 1: PDO Level Indicators

PDO Outcome	Indicator
Enhance flood resilience in target areas	• People with reduced exposure to flood-related hazards due to project investments (disaggregated by gender and youth)[CRI]
	• Area with improved flood protection (Square Kilometers)
Strengthen the capacity for hydrometeorological services	• Increase in the lead time for delivery of early warnings for hydromet hazards (Hours)
Strengthen the capacity for financing post-disaster response	• People covered by disaster risk finance and insurance (Number of people) (disaggregated by gender and youth)[CRI]

The project will be implemented from 2026 to 2031 – through various investment activities organized in five project components:

- **Component 1: Riverbank Protection and Flood Risk Management** (US$ 46 million). This component aims to strengthen flood protection and resilient urban planning in several locations across Lao PDR. The component activities will be coordinated with Department of Waterways (DOW) of the Ministry of Public Works and Transport (MPWT). The component has three subcomponents: Sub-component 1.1 – Riverbank Protection and Flood Risk Management, Sub-component 1.2 – Strengthening Urban Resilience, and Subcomponent 1.3: Project Management.
- **Component 2: Strengthening Hydromet Monitoring and Early Warning Systems** (US$ 2 million). This component, implemented by the Department of Meteorology and Hydrology (DMH) under Ministry of Agriculture and Environment (MAE), will improve the delivery of weather, climate, and hydrological services and end-to-end early warning systems throughout the country. Component 2 has three subcomponents: Sub-component 2.1 – Upgrading Select Monitoring Systems and Communication Equipment. Sub-component 2.2

– Early Warning Dissemination and Communication, and Sub-component 2.3 – Capacity Building and Project Management.

- **Component 3: Financial Planning for Disaster Resilience (US$ 9 million).** Implemented by the Financial Regulatory Department (FRD) under Ministry of Finance (MOF), this component will enable Lao PDR to access and utilize pre-arranged, market-based insurance and strengthen the Government's capacity to meet post-disaster funding needs thereby enhancing the country's financial resilience to natural disasters. This component has two subcomponents: Sub-component 3.1 – Financing the Costs of Disaster Risk Finance Instrument; and Sub-component 3.2 – Strengthening National Financial Resilience.
- **Component 4: Project Management and Coordination (US$ 3 million).** Implemented by the Department of Planning (DOP) of Ministry of Finance, this component will support (i) overall project management and coordination including monitoring and evaluation and financial audits, (ii) development of tools and resources to strengthen the mainstreaming of disaster risk management in planning and investment, and (iii) day to day implementation of Component 4.
- **Component 5: Contingency Emergency Response Component (US$0 million).** This component is a 'zero-assignation' Contingent Emergency Response Component (CERC) that will provide funding for immediate response in the event of an eligible crisis or emergency, defined as an event that has caused or is likely to imminently cause a major adverse economic and/or social impact associated with natural or man-made crises or disasters.

It is noted that most of the major infrastructure activities will take place under Component 1. Infrastructures to be built or rehabilitate include (i) flood protection infrastructure such as riverbank protection embankments, canal improvements, water gates with pumping stations, river-side parks and tree-planting in Oudomxay and other provinces to be identified during project implementation, (ii) feasibility studies and detailed technical designs, (iii) construction supervision and contract management and (iv) resettlement activities expected to be financed through IDA loan for compensation and assistance to displaced persons. Analytical studies, such as strategic investment plan for flood protection measures along with feasibility studies and detailed designs for priority investments, will also be conducted to support integrated management of urban flood risk for priority areas in Luang Namtha and Vientiane Capital City.

2. Purpose and Scope of the ESMF

This Environmental and Social Management Framework (ESMF) sets out principles, procedures, and guidance for preparation and implementation of E&S instruments that may be required for relevant project investment/ activities. The E&S framework instruments prepared for this project include ESMF, Resettlement Policy Framework (RPF), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP). These framework documents guide how E&S instruments, such as Environmental and Social

Management Plans (ESMP), Resettlement Plan (RP), and Ethnic Group Engagement Plan (EGEP), Strategic Environmental and Social Assessment (SESA), Biodiversity Management Plan, Cultural Heritage Management Plan, could be prepared for civil work subprojects and/or analytical studies - if required.

This ESMF also provides guidance on how key E&S risks and impacts are screened, identified, assessed – vis a vis the WB's ESF - to propose mitigation measures. The ESMF also sets forth institutional arrangements, led by PMU (under Department of Planning of the Ministry of Finance), to ensure environmental and social risks and impacts are identified, assessed, and managed effectively during project implementation, as well as during the operation phase of the civil work subprojects – as appropriate. The ESMF is prepared in accordance with the laws and regulations of Lao PDR, and the World Bank's Environmental and Social Framework (ESF).

Consistent with the ESF requirements, all subprojects will undergo environmental and social screening using the ESS Screening Tool provided in this ESMF to determine applicable ESSs, required risk-management instruments, and appropriate mitigation measures.

The ESMF also provides (in its annexes) key important documents, including Resettlement Policy Frameworks, Labor Management Procedures, which are fundamental to effective management of E&S risks and impacts associated with construction of infrastructure subprojects. The ESMF also has, among other things, suggestive outline for a site-specific E&S documents, Chance-Find Procedures, E&S Screening Form, E&S Monitoring Checklists, and so forth.

This ESMF applies to all project-financed activities to manage environmental and social (E&S) risks and impacts in accordance with the World Bank ESF requirments except those financed under the Sub-component 3.1 (Financing the Costs of Disaster Risk Finance Instrument), the insurance payouts activities are governed by the Lao PDR Contingency Plan (LCP) developed and applied under the ongoing Recipient-Executed Trust Fund (RETF, P505224) after closure of the RETF in 2027.

3. Key E&S Risk and Impact anticipated under Project's financed activities

The Lao Southeast Asia Disaster Risk Management Project II (SEADRM II) will finance a wide range of activities under Components 1, 2, 3, 4, and 5. Based on the nature of these activities, their geographic locations, and the type of infrastructure and systems to be supported, the Project is expected to generate direct, indirect, and cumulative E&S risks and impacts, as outlined below.

i) Direct Environmental and Social Impacts

Direct impacts are those arising immediately and spatially within the project footprint as a result of project-financed activities, particularly under Component 1. Anticipated direct impacts include:

Environmental

- Disturbance of soil, vegetation, and riverbanks during construction of embankments, canals, pumping stations, and riverside parks.
- Increased erosion, sedimentation, and localized changes to hydrology.
- Pollution risks from construction waste, hazardous materials, fuel storage, wastewater, and concrete works.
- Construction-related noise, vibration, and dust affecting nearby residents.
- Risks to aquatic habitats and riparian ecosystems in the project provinces.
- Generation of electronic waste (e-waste) from upgrades to hydromet stations (Component 2).

Social

- Physical and/or economic displacement from riverbank works and right-of-way (ROW) clearance.
- Temporary access restrictions to river areas used for bathing, washing, recreation, fishing, or transport.
- Occupational health and safety (OHS) risks for workers.
- Community health and safety risks (traffic, construction hazards, communicable diseases, SEA/SH).
- Impacts on ethnic groups Khmu and Hmong requiring culturally appropriate engagement and mitigation.
- Potential impacts on cultural heritage, including areas within the UNESCO World Heritage Site.

ii) Indirect Environmental and Social Impacts

Indirect impacts occur beyond the immediate construction footprint, and may manifest during or after implementation. These include:

Environmental

- Changes to downstream sediment transport or flow regimes due to riverbank protection structures.
- Increased solid waste generation and wastewater loads from heightened community use of improved riverside areas.

- Long-term maintenance burdens for hydromet equipment and flood infrastructure that could lead to environmental degradation if not properly managed.

Social

- Increased land values along newly protected or improved river corridors, possibly creating pressures on low-income or informal households.
- Enhanced accessibility of project areas potentially attracting new settlements or commercial activity.
- Improved early warning systems benefiting communities but requiring sustained training and inclusion of vulnerable groups.
- Indirect economic impacts on tourism activities during construction phases.

iii) Cumulative Environmental and Social Impacts

Cumulative impacts are those that may emerge over time and in interaction with other existing or planned developments, particularly in flood-prone river corridors. Anticipated cumulative impacts include:

Environmental

- Combined effects of multiple flood protection structures along the same river system on hydrology, water levels, and riparian ecosystems.
- Interaction with other upstream or downstream infrastructure (hydropower dams, irrigation systems, municipal drainage).
- Long-term cumulative pressures on natural habitats as urban areas expand around improved flood protection zones.

Social

- Cumulative land acquisition and resettlement effects where several infrastructure investments occur in the same district or province.
- Combined increases in construction traffic and safety risks when multiple civil works operate simultaneously.
- Accumulated changes to community access patterns, livelihoods, and socio-economic conditions along urban river corridors.
- Increased cumulative exposure of vulnerable groups if early warning systems and communication channels are not inclusive and consistently maintained.

4. Mitigation Measures

To mitigate environmental and social risks and impacts, the following mitigation hierarchy is adopted:

- Environmental and social risks and potential impacts will be anticipated and avoided;

- Where avoidance is not possible, risks and potential impacts are minimized or reduced to acceptable levels;
- Once risks and potential impacts have been minimized or reduced, further mitigate; and
- Where significant residual impacts remain, compensate for or offset these impacts, where technically and financially feasible.

Based on the risks and potential impacts discussed in Chapter 4 of the ESMF, key mitigation measures are proposed for adoption by CMU 1 and PMU for effective environmental and social risk and impact management during project implementation. Proposed mitigation measures could be adopted for subproject E&S documents/plans.

5. Stakeholder Consultation and Information Disclosure

Under SEADRM II, it is important that open and transparent stakeholder engagement process be established and maintained between PMU/CMUs and project stakeholders, particularly adversely affected people. Effective stakeholder engagement will not only improve the E&S management process but also contribute to successful project design, implementation, and enhance public support for project implementation.

Information disclosure refers to making project information, particularly project activities and associated E&S risks and impacts, accessible timely and understandable to affected parties. Information Disclosure will be an ongoing process under SEADRM II. At subproject level, subproject information will be disclosed to ensure it is accessible to a wide range of project stakeholders (in both Lao and English language). For Ethnic Groups, information will also be dislcosed in Lao language, and verbally explained in ethic groups language.

The following guiding principles will be used:

- Project information, including project/subproject purpose, activities, environmental and social risks and potential impacts, proposed mitigation measures, complaint handling procedures, etc., will be disclosed at the earlier stage of project/ subproject preparation;
- Information will be disclosed to the target group well ahead of consultations to promote understanding about the project and allow meaningful feedback of stakeholders;
- Project information will be disclosed in local languages of the target audience;
- In case the target Ethnic Groups do not have written language, Lao language will be used in Project Information Booklet to be distributed to them. Consultation with Ethnic Groups will be conducted in their mother language to promote understanding, two–way communication, and feedback of Ethnic Groups during consultation;
- Project information will be disclosed in the written form, and in various formats for convenient use of various project stakeholders, including Project Information Booklet, Executive Summary, and full documents;

- Project information will be disclosed through different channels for convenient access of various project stakeholders. Project's dedicated channels for information disclosure include webpage of Ministry of Finance (where PMU is housed) and Ministry of Public Works and Transport (where CMU 1 is based).

6. Information Disclosure during Project Preparation

To prepare for consultation, the ESMF, Resettlement Policy Framework (RPF), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP), and Environmental and Social Commitment Plan (ESCP)—as well as site-specific E&S documents will be disclosed on the website of the MPWT. Disclosed documents will include the full English versions and Executive Summaries in Lao language.

The final versions of the E&S documents will be disclosed on the websites of MPWT. Executive Summaries of site-specific E&S documents, prepared in Lao language, will also be posted at the subproject level to ensure convenient access for local stakeholders.

Following WB clearance for public disclosure, the final E&S package (English version) will be disclosed on the WB's website.

7. Grievance Redress Mechanism

The World Bank requires PMU and respective CMUs to respond timely to concerns and grievances of parties affected by project activities. In line with this, PMU has prepared a project–level Grievance Redress Mechanism (GRM) to facilitate timely and effective resolution of grievances and concerns. The project's GRM aims to:

- Address concerns and resolve grievances timely and effectively – in a manner that is transparent to affected people. Grievance will be resolved at no cost to aggrieved persons. The GRM process or procedure will not prevent access to judicial or administrative remedies. PMU and CMUs will inform project affected parties about the grievance redress procedure during consultation activities at village level and will make public the record documenting the responses to all grievances received.

- Resolve grievances in a manner that is culturally appropriate to the affected people and be discreet, objective, sensitive and responsive to the needs and concerns of the project-affected people. The GRM will allow anonymous complaints to be raised and addressed.

The project has in place four complaint handling procedures for four types of risks and potential impacts: 1) Resettlement and Land acquisition, 2) Labor and working conditions, 3) Sexual exploitation and abuse and sexual harassment (SEA/SH), and 4) General complaints. These procedures are established based on the World Bank's requirement in Environmental and Social Standard 10 and pertinent national laws and regulations. The GRM for complaints related to resettlement and land acquisition is summarized in the project's RPF. The GRM provides steps to

guide complainants through complaint resolution process, including timeframe specified for each step (see RPF for details). The GRM for workers regarding employment, wages, payment, working conditions, health, safety, etc. follows different procedure and are described in project's Labor Management Procedures (see LMP for details). The GRM related to SEA/SH is also established in accordance with the pertinent national laws and the World Bank's guidance on SEA/SH, and is described in project's LMP (see LMP for details). During project implementation, SEA/SH risk will be evaluated at subproject level taking into account local SEA/SH situation, feedback from local people and other stakeholders (e.g. health services, NGOs). In case of need, local SEA/SH service provider(s) will be engaged by CMU 1 before contractors are mobilized to subproject site.

All grievances and concerns submitted to any project implementation agencies, either in written or verbal forms, are documented diligently in writing by the agency that receive and reported to respective CMUs who will consolidate and reported montly to PMU for record and follow–up. Grievances could be recorded and monitored.

8. Implementation Arrangement

To implement the project, a Project Management Unit (PMU) will be established within the MOF. To implement acivities proposed under Components 1, 2, and 3, three separate Compopnent Management Units (CMUs) will be established under three respective CMUs. In particular, CMU 1 which is in charge of Component 1 will be housed within the DOW within MPWT. CMU 2 which is responsible for activities under Component 2 is based within the DMH within MAE. CMU 3 which is responsible for activities under Component 3 is housed within the Financial Regulatory Department (FRD) under the Ministry of Finance.

Within PMU, CMUs, and line provincial departments (under respective minitries), Environmental and Social Standards Focal Points (ESFPs) will be appointed to facilitate implementation of ESMF and E&S instruments prepared for infrastructure subprojects (under Sub-component 1.1 – Riverbank Protection and Flood Risk Management), and Feasibility Study and Master Plan (under Sub-component 1.2 – Strengthening Urban Resilience). Within CMU 1 where most major infrastructure subprojects are implemented, the Public Works and Transport Institute (PTI) has been appointed to lead the E&S implementation under Component 1 and will provide additional technical support to activities under Component 2, 3, 4 and 5 as needed. Capacity will be built with Environmental and Social Standards Focal Points at PMU, CMU, and provincial levels, and financial resources will be allocated timely to facilaite effective E&S risk and impact management.

9. Procedures for Environmental & Social Management.

Any activities or subprojects identified during project implementation will be screened using the E&S Risk Screening Tool (Annex 1). Based on the screening results, the required environmental and social management instruments will be prepared in accordance with the principles and guidance provided in this ESMF. These include, but are not limited to:

- Strategic Environmental and Social Assessment (SESA)
- Environmental and Social Impact Assessment (ESIA)
- Site-Specific Environmental and Social Management Plan (SS-ESMP)
- Environmental and Social Code of Practice (ESCOP)
- Biodiversity Management Plan (BMP)
- Cultural Heritage Impact Assessment (CHIA)
- Cultural Heritage Management Plan (CHMP)
- Resettlement Plan (RP)
- Ethnic Group Development Plan (EGDP)

All required instruments will be prepared following the templates and guidance in this ESMF (see Annex 2 to Annex 9) They will be submitted to the World Bank for review and clearance and disclosed prior to commencement of any activities or subproject implementation.

This ESMF does not address risks and impacts in relation to the Contingency Emergency Response Component (CERC), given that the type and nature of likely emergency and indicative list of activities that will be supported through CERC cannot yet be determined. Thus, the ESMF may not cover potential social and environmental issues in relation to the CERC. All activities financed through the CERC are subject to the World Bank ESF. A CERC Framework, including environmental and social screening, assessment, and implementation arrangements (CERC-ESMF), will be prepared within six months after project effectivenes and provided as an addendum to the SEADRM II ESMF in accordance with the relevant ESSs.

The additional costs of any needed instruments (preparation and implementation) should be included in the budget for the Emergency Action Plan (EAP). The EAP, to the extent possible, will focus on activities that can be readily implemented on the ground and which will not result in additional environmental and social risks. The EAP will include a summary of the ESF implications of the proposed activities, and, if needed, list any new ESF instrument(s) to be prepared and implemented. The sequencing for completing additional ESF activities (including requirements for implementation and monitoring) will be determined at that time.

In the interest of delivering a rapid response in such emergency situations, the CERC-ESMF when prepared, will adopt a flexible, “adaptive management” approach. A rapid assessment of the environmental and social baseline of the CERC activities will be undertaken, based on readily available information. A phased approach to implementation may be used. Based on the EAP, the CERC activities will be grouped into: (i) those activities which can proceed as soon as the CERC is activated and with no additional environmental and social assessment; (ii) those activities which would require an environmental and social assessment, stakeholder consultation, and disclosure of the relevant management plans (eg SS-ESMP), prior to CERC activities commencing.

The CERC-ESMF will describe: the potential emergencies and the types of activities likely to be financed (positive and negative list) and an evaluation of the potential risks and mitigation measures associated with those activities; identify likely vulnerable groups and/or locations and includes, where needed, a social assessment to guide emergency responses, such as potential of exacerbating existing social conflicts. The CERC-ESMF or CERC ESMF-Addendum will include a screening process for the potential CERC activities, the institutional arrangements for environmental and social due diligence, and any needed capacity building measures to implement the CERC-ESMF, generic guidance on emergency small scale civil works, and any additional safeguard instruments which may be required for the CERC.

10. Monitoring and Reporting

Monitoring aims to periodically collect necessary information to evaluate E&S management process and outcomes. The purpose of E&S monitoring is to determine if E&S implementation under the project is in full compliance with the principles and requirements set forth in respective subproject's E&S documents. PMU and CMUs are responsible for overall regular monitoring of E&S implementation process and outcomes under the project. Monitoring by PMU will cover all risks and impacts identified in respective infrastructure subprojects. CMUs will monitor how these risks and potential impacts are avoided, or minimize and mitigated by relevant project stakeholders, particularly civil work contractors.

CMUs will be responsible for conducting internal E&S monitoring for activites under their respective scope of works. internal E&S monitoring will be carried at interval required in respective subproject ESMP. An end-of-project review will be conducted by CMUs to confirm if the objectives set forth in subproject ESMPs, and relevant instruments such as RP, EGEP, LMP and SEP, have been fully achieved.

11. Indicative Costs and Budgets

The estimated cost for implementing the ESMF under the SEADRM II Project is USD 1,051,000, covering Component 1 and Components 2–5. The PMU budget (USD 50,000) finances ESF-related training (LMP, Code of Conduct, e-waste procedures), SEP and GRM implementation, and ESS monitoring and reporting across Components 2, 3, 4, and 5. Component 1 (USD 1,001,000) supports capacity building through multiple training rounds in project provinces; stakeholder engagement and communication materials; and implementation of RPs, BMPs, and CHMPs under CMU1. It also finances one Senior Environmental and Social Consultant, one full-time Environmental and Social Consultant, and two Junior E&S Specialists through PTI, alongside GRM, EGEP, and RP field implementation and monitoring.

1. INTRODUCTION

1.1 PROJECT RATIONALE

The Southeast Asia Disaster Risk Management Project for Lao PDR (Lao SEADRMP) is being implemented with financing from the World Bank (WB). The Project has been carried out from 2017 till 2025 with the aim of reducing the risk of flooding and enhancing the disaster risk financing capacity of Lao PDR. The parent project, approved on July 6, 2017 and effective from October 11, 2017 with a commitment amount of US$30 million, has the Project Development Objective (PDO) to reduce the impacts of flooding in Xay District of Oudomxay Province (ODX); enhance the capacity of the Government of Lao PDR (GoL); and provide hydro-meteorological services and disaster response.

In 2018, Lao PDR experienced widespread floods, which significantly impacted its people and economy. To help reduce the financing gap and augment the response efforts, the World Bank approved Additional Financing (LDRM-AF, or AF) of about $25 million. This includes funding for Structural Investments to Strengthen Flood Protection to support additional investments in Xay District and to implement similar activities in two additional provinces i.e. Luang Prabang (LPB) and Bolikhamxay (BKX).

The proposed second Southeast Asia Disaster Risk Management Project (SEADRM II) builds on the achievements of the original SEADRM project, and continues to support implementation and scale-up of the activities initiated under it. The project will continue interventions in SEADRM I provinces, including Oudomxay Province (ODX), Luang Prabang Province (LPB), and Bolikhamxay Province (BKX), for civil works, while also providing technical assistance in two additional provinces, Luang Namtha Province (LNT) and Vientiane Capital (VTE). SEADRM II will take an integrated approach to disaster risk management, supporting activities across the thematic areas of flood risk management (including nature-based solutions), early warning systems, and disaster risk finance.

1.2 PROJECT DEVELOPMENT OBJECTIVE AND PROJECT COMPONENTS

The Project Development Objective (PDO) is to enhance flood resilience in target areas of Lao PDR and strengthen the Government's capacity for hydrometeorological services and financing post-disaster response.

The achievement of the PDO will be measured by through three distinct outcomes with corresponding results indicators. Two of these indicators contribute to the WBG Corporate Scorecard (CSC) indicator: People with enhanced resilience to climate risks.

Table 1-1 PDO Level Indicators

PDO Outcome	Indicator
Enhance flood resilience in target areas	• People with reduced exposure to flood-related hazards due to project investments (disaggregated by gender and youth)[CRI]
	• Area with improved flood protection (Square Kilometers)
Strengthen the capacity for hydrometeorological services	• Increase in the lead time for delivery of early warnings for hydromet hazards (Hours)
Strengthen the capacity for financing post-disaster response	• People covered by disaster risk finance and insurance (Number of people) (disaggregated by gender and youth)[CRI]

The total project cost is US$60 million entirely financed through the International Development Association (IDA). The project is structured around five components, with the first three focusing on the three thematic areas, the fourth dedicated to project management and coordination with some scope for supporting DRM mainstreaming activities in national development and investment planning. Component 5 is a zero allocation Contingency Emergency Response Component (CERC) that, if triggered, allows the borrower to redirect uncommitted funds under the project for responding to an eligible emergency.

Component 1: Integrated Urban Flood Risk Management (US$ 46 million)

This component supports investments to strengthen flood protection and reduce the exposure of communities, assets, and livelihoods to fluvial and pluvial flooding in key urban areas in Laos. In structural investments, this component will finance flood protection infrastructure in Muang Xay, Luang Prabang and Paksan cities that are prioritized based on their exposure to flooding, economic importance, feasibility based on technical and scoping studies; and priority unmet needs in DOW's 2021-2025 investment plan. In non-structural investments to strengthen urban resilience, this component will cover Vientiane Capital and Luang Namtha provinces. The investments have been selected based on their potential flood protection benefits in alignment with flood risk reduction priorities of DOW and the respective DPWTs, and are informed by hydrological modelling, technical assessments, and stakeholder consultations. The component will be implemented by DOW of MPWT and comprises the following three sub-components (additional details in Annex 2 of Project Appraisal Document-PAD):

- ***Sub-component 1.1 – Riverbank Protection and Flood Risk Management (US$ 40 million)****:* will finance the construction of flood protection infrastructure in Muang Xay, Luang Prabang, and Paksan to reduce the impacts of increasingly severe flooding caused by climate change. This will include riverbank protection works on the Nam Mao and Nam Kor rivers in Muang Xay, riverbank protection on the Mekong and Nam Khan Rivers and flood gates with pumping stations in Luang Prabang, and flood and erosion protection

infrastructure, including flood gates in Paksan. The infrastructure will be designed for appropriate flood return periods that account for changes to river flows and precipitation due to a warming climate, with nature-based solutions (NBS) incorporated where feasible. The design will also be shaped by ongoing participatory planning with beneficiaries. In addition, this sub-component will finance feasibility studies, detailed technical designs, construction supervision, and contract management and support DOW and the respective DPWTs in putting in place O&M mechanisms for the infrastructure financed under the project. In concurrence to GoL's request, it will also finance about US$2.2-2.5 million estimated as the compensation for land acquisition and resettlement activities for project affected households.

- ***Sub-component 1.2 – Strengthening Urban Resilience (US$ 4 million):*** will finance activities for strengthening flood risk management in Vientiane Capital City and Luang Namtha province. In Vientiane Capital, it will finance follow-on activities to the Bank-supported Flood Risk Management Strategy and detailed risk modelling that aims to improve the city's preparedness and response capabilities for routine as well as extreme flood events. This will include feasibility studies and detailed designs for priority investments (including NBS) identified under the strategy to create an implementation-ready pipeline of flood risk reduction interventions. In Luang Namtha province, this sub-component will support flood hazard and risk modelling aimed at identifying the main drivers of flooding, including climate change, in key hot spots that experienced extensive flooding and sustained heavy losses in September 2024. It will also finance a strategic investment plan for flood protection measures in Luang Namtha district along with feasibility studies and detailed designs for priority investments.
- ***Subcomponent 1.3: Project Management (US$ 2 million)****:* will finance activities that strengthen DOW's institutional and technical capacities for implementing Component 1, including coordination, technical matters, procurement, financial management (FM), ESF implementation, monitoring and evaluation (M&E), and reporting.

Component 2: Strengthening Hydromet Monitoring and Early Warning Systems (US$ 2.0 million)

This component will strengthen the effectiveness and reliability of DMH's hydromet network through operations and maintenance support and improve communication and dissemination of early warnings. It is designed to leverage the activities supported under the ongoing SEADRM project, with a particular focus on ensuring that hydromet stations installed through it function optimally to provide requisite hazard monitoring and forecasting capabilities, which are critical for enhancing flood preparedness and climate resilience.

Implemented by DMH of MAE, this component will finance essential activities such as equipment inspection and calibration, minor repairs and upgrades, ICT maintenance, and other critical refurbishments to verify functionality, accuracy and effectiveness of the network. These efforts will be complemented by on-site and remote technical support on meteorological ICT systems, protocols and processes to support DMH in integrating observation data from diverse set of sensor equipment and technologies into the existing integrated data management platform. It will also finance technology-driven pilots such as location-based cell broadcasting to improve communication and last-mile dissemination of early warnings in 2-3 target cities. The design of these pilots and selection of target cities will be based on targeted stakeholder consultations to be responsive to local needs, including those of vulnerable groups such as women and the elderly.

The overall implementation of Component 2 will be closely coordinated with UN's EW4All National Roadmap (2024-2027)[1] implementation and complemented with US$0.9 million Bank-executed grant from the Climate Risk and Early Warning Systems (CREWS) approved in September 2025[2]. The World Bank's CREWS activities will focus on capacity building and institutional strengthening of provincial and district level staff as well as community-based activities to support disaster preparedness and response. In the future, Component 2 may be supplemented with up to US$ 3-5 million in RETF grant from the Systematic Observations Financing Facility (SOFF)[3].

Component 3: Financial Planning for Disaster Resilience (US$ 9 million)

This component will enable the GoL to access and utilize pre-arranged, market-based risk financing instruments including insurance and strengthen the GoL's capacity to meet post-disaster funding needs. It builds on activities supported under the SEADRM project and RETF grant for premium financing, incorporating lessons learnt from prior project implementation. It focuses on securing ex-ante funding and ensuring that the GoL can efficiently channel funds to the affected population and sectors after a disaster occurs. Implemented by FRD of MOF, this component includes the following sub-components:

- **Sub-component 3.1 – Financing the Costs of Disaster Risk Finance Instrument (US$ 7.5 million)**: will facilitate continued access to pre-arranged, market-based disaster risk

[1] Lao PDR's EW4ALL Roadmap, led by DMH and DSW with support of UNDRR, WMO, ITU, World Bank and other development partners targets to achieve full implementation of Multi-Hazard Early Warning Systems in Lao PDR by 2027, aligned with the UN Sustainable Development Cooperation Framework (2022–2026) and the Lao PDR's 9th National Socio-Economic Development Plan (2021–2025).

[2] CREWS is a mechanism that provides financial support to Least Developed Countries (LDCs) and Small Island Developing States (SIDS) to establish risk-informed early warning services. In Laos, the CREWS initiative is led by the World Meteorological Organization (WMO), with the World Bank and the United Nations Office for Disaster Risk Reduction (UNDRR) as implementing partners.

[3] SOFF supports countries in improving basic weather and climate observations to accelerate the sustained collection and international exchange of essential data. It targets countries facing the most critical gaps in observational data, with special emphasis on LDCs and SIDs. Lao PDR's grant funding proposal prepared in 2024 needs to be revised and is expected to be re-submitted to the SOFF secretariat by 2027.

financing instruments such as insurance. It will finance the cost of these instruments including insurance premiums from mid-2027 up to project closure. While the GoL may continue to access products through SEADRIF, should SEADRIF be unable to provide these products, it may purchase coverage directly through the World Bank Treasury or from the insurance markets.

- **Sub-component 3.2 – Strengthening National Financial Resilience (US$1.5 million)**: will focus on strengthening the national capacity to effectively procure insurance products, manage post-disaster financial resources, and channel funds to the affected populations and sectors. It will support the GoL's preparatory work necessary for the successful procurement of insurance coverage. In addition, it will finance technical assistance and investments to support public financial management reforms aimed at institutionalizing long-term insurance premium financing within the government's budget, enhancing post-disaster resource management, and linking insurance payouts to adaptive social protection systems such as the Helping Hand program or other mechanisms. The component will support capacity building in environmental & social risk management and FM to ensure sufficient capacity for oversight of the use of payouts. In addition, it will support the recipient's engagement in regional disaster risk financing mechanisms and oversight of Component 3.

The new product financed under the SEADRM II is expected to be a 4-year policy, starting from mid-2027 with an annual premium of US$1.875M (US$7.5M total, evenly split across the four years). To improve the cost-effectiveness and better complement existing national contingency funds, the proposed product may incorporate a higher attachment point, potentially shifting from the 1-in-2-year threshold used in the 2025 policy to a 1-in-6-year event. All product parameters are subject to market conditions by the time the product is finalized.

The design and implementation of this Component will be coordinated with the ongoing RETF, which finances premium for the 2025-2027 policy. Sub-Component 3.2. will finance targeted interventions that complement RETF activities and enhance the sustainability and impact of the Bank's support. Under the RETF, an external firm is being hired to support E&S monitoring of payouts and strengthen E&S management capacity. In addition, the project will facilitate the government's discussions on the possible allocation of 30 percent of payouts to adaptive social protection programs, such as the Helping Hand Conditional Cash Transfer Program supported under the Reducing Rural Poverty and Malnutrition Project 2, as proposed by the MOF. The project will also support revisions to the Ministerial Instruction on SEADRIF payout management to improve the efficiency of disbursement processes. Sub-component 3.2 will complement these efforts, leveraging lessons learnt from the RETF implementation, by supporting reforms to the planning, allocation and public financial management of funds for post-disaster response and recovery, as well as investments in strengthening pre-arranged operational systems linked to

adaptive social protection. These investments could include, for example, integrated data platforms to inform MoF and relevant authorities' financial decision making or inform future product design and implementation, digitization of the financial management processes or pilot triggering mechanisms. These efforts are aimed at ensuring a timely, effective, and transparent use of insurance payouts.

Component 4: Project Management and Coordination (US$ 3 million)

Housed at the DOP of MOF, this component will support overall project management and coordination including M&E and financial audits, and manage procurement and FM functions for Components 2, 3, 4, and 5. In addition, it would also finance few technical support activities for mainstreaming DRM considerations in government's development planning such as the next iteration of the NSEDP.

Component 5: Contingency Emergency Response Component (CERC) (US$ 0 million)

This component is a 'zero-allocation' CERC that will provide funding for immediate response in the event of an eligible crisis or emergency, defined as an event that has caused or is likely to imminently cause a major adverse economic and/or social impact associated with natural or man-made crises or disasters.

A CERC Framework, including environmental and social screening, assessment, and implementation arrangements (CERC-ESMF), will be prepared within six months after project effectiveness and provided as an addendum to the SEADRM II ESMF in accordance with the relevant ESSs.

1.3 PURPOSE, SCOPE AND APPLICATION OF THE ESMF

Purpose

This Environmental and Social Management Framework (ESMF) sets out principles, procedures, and guidance for preparation and implementation of E&S instruments that may be required for relevant project investment/ activities. The E&S framework instruments prepared for this project include ESMF, Resettlement Policy Framework (RPF), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP). These framework documents guide how E&S instruments, such as Environmental and Social Management Plans (ESMP), Resettlement Plan (RP), and Ethnic Group Engagement Plan (EGEP), Strategic Environmental and Social Assessment (SESA), Biodiversity Management Plan, Cultural Heritage Management Plan, could be prepared for civil work subprojects and/or analytical studies - if required.

This ESMF also provides guidance on how key E&S risks and impacts are screened, identified, assessed – vis a vis the WB's ESF - to propose mitigation measures. The ESMF also sets forth institutional arrangements, led by PMU (under Department of Planning of the Ministry of

Finance), to ensure environmental and social risks and impacts are identified, assessed, and managed effectively during project implementation, as well as during the operation phase of the civil work subprojects – as appropriate. The ESMF is prepared in accordance with the laws and regulations of Lao PDR, and the World Bank's Environmental and Social Framework (ESF).

Scope

Since project activities and subprojects will only be confirmed during project implementation, the ESMF, RPF, LMP, and SEP are prepared to guide the preparation of relevant E&S instruments such as SS-ESMP, SESA, RP, EGEP, and BMP for project's financed activities. Oudomxay subproject has been confirmed during project preparation, hence site-specific ESF instruments for this sub-project, including SS-ESIA, SS-ESMP, EGDP, and RP have also been prepared and will be finalized by the project effectiveness.

Application of ESMF

This ESMF applies to all components and all project-financed activities of the SEADRM II Project throughout the implementation period to identify, assess, and manage environmental and social (E&S) risks and impacts, and to define appropriate mitigation measures. The ESMF also applies to associated facilities, if such facilities are identified during project implementation.

For Sub-component 3.1 (Financing the Costs of Disaster Risk Finance Instrument), disaster risk insurance payouts are currently governed by the Lao PDR Contingency Plan (LCP) and the associated Payout Environmental and Social Management Guideline developed and endorsed under the ongoing Recipient-Executed Trust Fund (RETF, P505224)[4]. These instruments ensure that: (i) environmental and social management measures are proportionate to the nature, scale, and location of activities financed through insurance payouts; (ii) such measures are practical and feasible given the emergency response nature of these activities; and (iii) the Government of Lao PDR's environmental and social management capacities are taken into account.

Upon closure of the RETF, the LCP will continue to apply for the activities funded under the Sub-component 3.1 of the SEADRM II Project to ensure consistency with ESF requirements, and effective environmental and social risk management under post-disaster recovery activities financed through insurance payouts.

This ESMF may not address all the potential environmental and social risks and impacts arising in relation to the CERC as type and nature of likely emergency and indicative list of activities that will be funded through CERC cannot yet be determined (b) all activities financed through the CERC are subject to the World Bank ESF, CERC ESMF-Addendum will be prepared, or additional E&S management instruments as required, to cover CERC activities and disclosed, within six months of project effectiveness (c) details on Emergency Action Plan (EAP) etc. A CERC

[4] Lao PDR Contingency Plan P505224

Framework, including environmental and social screening, assessment, and implementation arrangements (CERC-ESMF), will be prepared within six months after project effectiveness and provided as an addendum to the SEADRM II ESMF in accordance with the relevant ESSs.

2. LEGAL AND REGULATORY FRAMEWORKS

2.1 NATIONAL LEGAL FRAMEWORK RELATED TO ENVIRONMENTAL, SOCIAL AND DISASTER ISSUES

Lao PDR has established a robust legal framework to manage environmental and social (E&S) risks, aligned with national priorities on disaster resilience, climate adaptation, and sustainable development. The SEADRM II Project, which focuses on flood risk management, early warning systems, climate adaptation, and disaster risk finance, is directly supported by key legal instruments. These include the Disaster Management Law (2019), Climate Change Decree (2019), and Meteorology and Hydrology Law (2017), which define institutional mandates, guide risk assessments, and support resilient infrastructure and emergency preparedness.

The Environmental Protection Law No. 53/NA (2024) and EIA Decree 389/GoL (2022)underpin environmental assessment and pollution control, while the Land Law (2019) and Law on Resettlement and Occupation, No. 086/NA (2018) address land acquisition and livelihood restoration. While comprehensive, some legal gaps and implementation challenges (detailed in Section 2.3) require complementary measures through the application of the World Bank's ESSs. The legal instruments are organized in the tables below by thematic area aligned with relevant ESSs, covering both recent reforms and foundational laws.

A summary of the key applicable national legal instruments, categorized by thematic relevance to disaster risk management, environmental protection, social safeguards, and cultural heritage, is presented in the Table 2-1 to Table 2-4 below to illustrate their direct applicability to SEADRM II project activities. The legal instruments are organized in the tables below by thematic area aligned with relevant ESSs, covering both recent reforms and foundational laws.

Table 2-1 Legal Instruments Related to Disaster Risk Management and Climate Change

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Law on Disaster Management, No. 71/NA (2019)	Outlines prevention, response, and recovery measures, prioritizing risk reduction. It establishes a national fund, multi-level committees, and mandates public involvement. October 13 is National Disaster Management Day.	Core legal foundation for Components 1, 2, and 5. Supports DRM planning, emergency SOPs, and local response systems. Enables implementation of contingency planning under CERC and guides institutional roles across sectors.

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Law on Waterways, No. 58/NA (2023)	**Articles 65–71** define **Waterway Reservation Zones**, which include the **surface land, sub-surface (underground), water surface, underwater bed**, and **airspace above waterways**. These zones are reserved for water transport, infrastructure, and public safety. Construction or excavation within these zones is prohibited without prior authorization from the Ministry of Public Works and Transport (MPWT). **Standard protected widths** include **35 meters** on either side of the Mekong River, and **25 meters** for other rivers, measured from the highest water level. **Article 75** mandates that all waterway infrastructure projects prepare a **Feasibility Study** that includes a full **Environmental and Social Impact Assessment (ESIA)**.	Highly relevant to **SEADRM II Component 1** subprojects (riverbank works, flood defenses, pumping stations) in subprojects to be confirmed in project provinces. Designs must avoid encroachment into Waterway Reservation Zones or seek MPWT approval. Article 75 requires that feasibility studies integrate ESIA aligned with **ESS1, ESS3, and ESS6**, ensuring risk screening and mitigation for sensitive waterways and communities.
Law on Meteorology and Hydrology, No. 36/NA (2017)	Sets rules for managing weather and water data to reduce disaster risks and support development. It mandates a national monitoring network, international data cooperation, and early warnings. MoNRE leads implementation. March 23 is National Meteorology and Hydrology Day.	Fundamental to Component 2. Supports upgrades to hydromet stations, early warning services, and community outreach on climate and disaster risks. Enables implementation of the Early Warning for All (EW4All) Roadmap.
Law on Water and Water Resources, No. 23/NA (2017)	Promotes sustainable management and protection of water resources, recognizing them as State-managed national property. Led by MONRE, it mandates strategic planning, quality standards, a national data system, and a dedicated fund. Water use permits are required, and harmful activities are prohibited. October 11 is National Water Day.	Relevant to Component 1 flood infrastructure. Supports sustainable floodplain management, drainage planning, and integration with green infrastructure.
Decree on Climate Change, No. 321/GoL (2019)	Sets regulations to manage climate risks and support sustainable development. It mandates integrating climate action into national planning, with MONRE leading coordination, data systems, and vulnerability assessments. A Climate Change Fund supports policy, research, and adaptation efforts. The decree applies to all entities in Lao PDR and includes rules to protect carbon sinks.	Guides climate resilience integration in infrastructure design and promotes risk-informed development under Components 1 and 2. Supports upstream climate screening and alignment with national adaptation priorities.
National Strategy for Disaster Risk Reduction	Provides Lao PDR with a strategic framework to strengthen disaster risk management across prevention, preparedness, response, and recovery. Aligned with the Sendai Framework	Directly informs SEADRM II design. Supports all components, especially flood risk management, early warning systems, and disaster risk financing.

Name of Legal Framework	Objective	Relevance to SEADRM II Project
(NSDRR 2021–2030)	and Disaster Management Law 2019, it outlines seven strategies and twelve objectives to integrate DRR into development plans, enhance early warning systems, build resilient infrastructure, and improve coordination and capacity. The strategy emphasizes inclusive participation, education, financing, and is subject to regular reviews through 2030.	Provides indicators for institutional coordination and DRM mainstreaming.
Nationally Determined Contributions (2021)	Outlines its commitment to the Paris Agreement, aiming for net-zero emissions by 2050 through three GHG scenarios. It also strengthens adaptation in key sectors and sets 2025 targets. MONRE leads implementation, supported by a Climate Change Fund and international cooperation.	SEADRM II supports NDC implementation via climate-resilient infrastructure (Component 1), early warning (Component 2), and adaptive disaster financing (Component 3).
National Financial Protection Strategy Against Disaster Risks (2022–2030)	Aims to strengthen financial resilience to disasters by improving risk management, ensuring timely funding, and protecting vulnerable populations. It builds on the NSDRR, promotes coordination, and aligns with national development goals and the Sendai Framework.	Guides Component 3. Enables SEADRIF premium financing, links disaster payouts to adaptive social protection, and supports government liquidity post-disaster.
Early Warning System SOPs (2017)	Provide clear guidelines for Lao PDR agencies to manage and communicate disaster warnings. They outline roles, promote technology use, support a multi-hazard approach, and emphasize timely public communication to strengthen preparedness and response.	Provides the procedural foundation for Component 2. Ensures institutional coordination for real-time warnings and community-based risk communication.
Resilience Framework 2022–2025	Aims to address crises like COVID-19 and the 4F crisis by strengthening resilience, especially for vulnerable groups. It focuses on five pillars—sustainable finance, trade, decent work, human capital, and green growth—and aligns with national development plans through coordinated, multi-stakeholder action.	Supports cross-sector resilience-building objectives across all components of SEADRM II, especially flood defense, social vulnerability reduction, and early recovery.
National Strategy on Climate Change (NSCC, 2023)	Aims for net-zero emissions by 2050 and stronger climate adaptation. It targets 60% GHG reduction, 70% forest cover, and 30% renewable energy by 2030. Led by MONRE, it focuses on prevention, resilience, and mainstreaming climate action across sectors.	SEADRM II aligns with NSCC through Component 1's nature-based solutions (NBS), Component 2's hydromet strengthening, and Component 3's financial resilience mechanisms.

Table 2-2 Legal Instruments Related to Environmental Protection and Biodiversity

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Law on Environmental Protection, No. 53/NA (2024)	Establishes the overarching legal framework for environmental protection in Lao PDR. It sets out principles, rights, and obligations for individuals, organizations, and the government to preserve natural resources, prevents pollution, and promotes sustainable development. The law mandates environmental assessments, pollution control, natural resource management, and public participation, under the coordination of the Ministry of Natural Resources and Environment (MONRE). Article **14** requires Strategic Environmental Assessments (SEA) for policies, plans, and programs.	Applies to all SEADRM II components. Triggers **IEE or EIA** for Component 1 structural works in project provinces. Establishes national framework aligned with **ESS1** and **ESS6** on screening, stakeholder engagement, and adaptive risk management.
Decree on Environmental Impact Assessment, No. 389/GoL (2022)	Sets the legal framework for managing environmental and social impacts of development projects in Lao PDR, outlining IEE/ESIA procedures, project risk categorization, public consultation, and environmental certification, all under MONRE's oversight. Article 9: IEE and EIA Classification: Group 1 – IEE and Group 2 – EIA. Art 11-18 outline the process and requirements for preparation and review of IEE Reports. Art 19-29 outline the process and requirements for preparation and review of EIA Reports. Art 45: Issuance of Environmental Compliance Certificate (ECC) for IEE and Art 46 is ECC for EIA.	Forms the procedural backbone for obtaining environmental approval for flood infrastructure. Ensures SEADRM II activities follow proper IEE/EIA steps, including public consultations and disclosure.
Ministerial Instruction on List of Projects Requiring IEE or EIA (2023)	This updated list categorizes investment projects by sector and size, defining thresholds for mandatory IEE or EIA. It clarifies criteria for classification under Category 1 (EIA) – Article 3 and **Article 2 – Category 1 (IEE Required):** ✓ Mekong River, its tributaries, or other rivers: >10 km, no land acquisition/resettlement → IEE ✓ Mekong River, its tributaries, or other rivers: 1–10 km, no land acquisition/resettlement → IEE **Article 3 – Category 2 (ESIA Required):** ✓ Tributaries of the Mekong or other rivers: >5 km, any land condition → ESIA	Applies directly to civil work subprojects under Component 1 of SEADRM II. Ensures consistency with national screening process. There is a **clear inconsistency** between Articles 2 and 3 regarding the classification of riverbank protection projects. For SEADRM II, civil works under Component 1 are subject to an EIA due to their location along the Mekong River and major tributaries and where the length of riverbank protection works exceeds 10 km..

Name of Legal Framework	Objective	Relevance to SEADRM II Project
	✓ Mekong River, its tributaries, or other rivers: >10 km, with land acquisition/resettlement → ESIA	
Decision on Strategic Environmental Assessment, No. 0483/MoNRE (2017)	Sets out the legal framework for Strategic Environmental Assessment (SEA), outlining its purpose, scope, and application to policies, plans, and programs. It defines responsible agencies, procedural steps, and requirements for public consultation, aiming to integrate environmental considerations into strategic planning for sustainable development.	SEA is not legally mandated for the proposed SEADRM II Technical Assistance activities.
Law on Forestry, No. 08/NA (2019)	Defines legal classifications for forests (protection, conservation, production), along with rights and duties for forest management, reforestation, and ecosystem services.	Relevant for flood protection sites near forest zones**.** Supports green infrastructure through riparian vegetation and aligns with **ESS6** natural habitat objectives.
Forest Management Decrees (219/GoL, 01/GoL, 02/GoL)	Supplement the Forestry Law by operationalizing zoning restrictions, land use permissions, and local enforcement in forest areas.	Used during site screening and design of flood works near or within forested landscapes. Helps avoid encroachment and biodiversity impacts.
Law on Aquatic Animal and Fishery, No. 41/NA (2023)	Regulates the protection of aquatic biodiversity, fishing practices, fish habitats, and water ecosystems. Introduces restricted and protected aquatic zones.	Applies to river improvement works (e.g. in ODX**,** BKX**,** LNT). Ensures compliance with aquatic habitat conservation goals under **ESS6** and supports long-term sustainability of riparian ecosystems.
Law on Wildlife and Aquatic Animals, No. 42/NA (2023)	Expands the legal framework for protecting terrestrial and aquatic fauna, including definitions of endangered species and their habitats, and enforcement against illegal hunting.	Supports biodiversity impact assessment and risk screening for SEADRM II in sensitive ecosystems (e.g., forests in **LNT**). Triggers additional conservation measures under **ESS6**.
Law on National Heritage, No. 11/NA (2021)	Establishes a comprehensive legal framework for the protection, preservation, and sustainable use of cultural and natural heritage, including UNESCO World Heritage properties. Defines responsibilities for central and provincial authorities, procedures for approving works within heritage zones, and coordination with international conventions and UNESCO.	Applies to civil work subproject, if relevant, under Component 1. Requires that all physical works in or near the **World Heritage core or buffer zones** undergo prior review and approval by the **Department of Heritage (DoH) under MICT** and are consistent with UNESCO and PSMV guidelines. Triggers **ESS8**, requiring a Cultural **Heritage Impact Assessment (CHIA)**, formal

Name of Legal Framework	Objective	Relevance to SEADRM II Project
		clearance from DoICT, and (if significant) early notification to the **World Heritage Centre**. Also reinforces obligations under the 1972 World Heritage Convention and supports integration of cultural safeguarding into ESMPs.
Luang Prabang PSMV Regulations (2019)	Provides detailed zoning, urban planning, architectural controls, and environmental safeguards within the core and buffer zones of the Luang Prabang World Heritage Site.	Directly applicable to SEADRM II infrastructure in **LPB**. Imposes additional design, construction, and consultation measures for visual, physical, and cultural heritage protection under **ESS6** and **ESS8**.

Table 2-3 Legal Instruments Related to Social Protection, Labor, and Community Health and Safety

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Law on Resettlement and Occupation, No. 086/NA (2018)	Regulates planning, implementation, and support for resettlement and livelihood restoration to ensure affected people are compensated fairly and can sustainably rebuild their lives after relocation caused by development projects or disasters.	Supports compliance with ESS5 for managing physical and economic displacement arising from infrastructure works, including site-specific livelihood restoration and compensation planning.
Labor Law (2013, revised)	Regulates employer-employee relationships, occupational safety, working hours, contracts, and dispute resolution.	Ensures compliance with ESS2 regarding fair labor conditions, safety, and grievance mechanisms for project workers.
Law on Hygiene, Prevention and Health Promotion, No. 73/NA (2019)	Focuses on preventive healthcare, occupational hygiene, and health promotion.	Supports implementation of occupational health and community safety measures during construction.
Decree on Occupational Health and Safety, No. 22/GoL (2019)	Defines employer responsibilities for maintaining safe work environments and procedures for OHS monitoring.	Directly applicable to all SEADRM II construction sites and labor camps.
Law on Grievance Redress, No. 023/NA (2016)	Establishes rights to access grievance mechanisms and appeal decisions.	Forms the basis for project-level grievance redress systems in line with ESS10.
Law on Anti-Human Trafficking, No. 73/NA (2015)	Aims to prevent trafficking, protect victims, and penalize offenders.	Relevant for ensuring labor rights and preventing exploitation of vulnerable workers.

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Law for Preventing and Combating Violence Against Women and Children (2014)	Provides legal safeguards against gender-based violence and promotes gender equality.	Supports implementation of gender-sensitive project and Sexual Exploitation and Abuse / Sexual Harassment (SEA/SH) risk mitigation.
Law on the Protection of Children's Rights and Benefits (No. 05/NA, 2006)	Safeguard children's rights, welfare, health, and development, ensuring protection from abuse, exploitation, neglect, and hazardous conditions.	Ensures that project activities (e.g., installation of monitoring stations, community training, and emergency preparedness) integrate child protection measures—particularly in labor, community health and safety, and stakeholder engagement—so children are not exposed to risks from project works or disaster-related activities.
Law on Prevention of HIV Disease (No. 01/NA, 2010)	Prevent and control the spread of HIV, protect the rights of people living with HIV, and promote awareness, treatment, and non-discrimination	Important for managing worker and community health risks, especially in contexts involving labor influx, construction camps, or community gatherings during training and awareness activities. Aligns with ESS2 and ESS4 by reinforcing health protection, reducing stigma, and ensuring inclusive participation in disaster preparedness and early warning activities.

Table 2-4 Legal Instruments Related to Ethnic Groups and Cultural Heritage

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Constitution of the Lao PDR, No. 63/NA (2015)	Guarantees equality among all ethnic groups and mandates their cultural preservation and development participation.	Underpins the application of ESS7 in engaging ethnic minorities in project planning.
Ethnic Minority Policy (1992)	Promotes the integration of ethnic groups into national development while protecting their identity.	Ensures inclusion of ethnic voices in consultations and decision-making.
Guidelines on Consultation with Ethnic Groups (2013)	Provides procedures for culturally appropriate consultations and consent processes.	Directly supports SEP implementation and risk mitigation under ESS7.
Law on National Heritage, No. 11/NA (2021)	Protects cultural, historical, and natural heritage sites across Lao PDR.	Critical for assessing and mitigating risks to heritage assets, particularly in Luang Prabang.

Name of Legal Framework	Objective	Relevance to SEADRM II Project
Presidential Decree on Heritage Conservation, No. 03/Lao PDR (1997)	Establishes legal foundation for conservation of tangible and intangible heritage.	Ensures activities in heritage-sensitive zones comply with national and UNESCO requirements.
Law on Lao Front for National Development, No. 49 (2018)	Mandates inclusive representation and participation of ethnic communities in governance and development.	Reinforces participatory approaches in line with ESS7 and national decentralization policies

2.2 WORLD BANK'S ENVIRONMENT AND SOCIAL STANDARDS (ESS)

The SEADRM II Project is financed by the World Bank and therefore applies the World Bank's Environmental and Social Framework (ESF). The ESF sets out objectives, requirements and principles for each ESS that applies to the Project. Borrowers are required to apply these ESSs in identifying, assessing, and managing environmental and social risks and impacts associated to the project – alongside relevant national laws and regulations.

The ESSs aim to ensure risks and impacts that are associated with project and are relevant to each ESS are identified, assessed, and mitigation measures proposed. This Environmental and Social Management Framework (ESMF) is developed accordance with the requirements of the World Bank's ESSs, and relevant national laws and regulations. Table below summarizes the WB's ESSs that are relevant to SEADRM II activities, and why these ESSs apply to the Project.

Table 2-5 World Bank's Environmental and Social Standards (ESSs)

WB's ESS	Relevance to SEADRM II Project Activities
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	ESS1 is relevant because SEADRM II will finance civil works and technical assistance activities with potential environmental and social risks and impacts. Key risks associated with civil works include land acquisition and economic displacement, occupational and community health and safety (including child safety), labor influx and SEA/SH risks, and challenges in engaging vulnerable groups, including ethnic minorities. Technical and analytical activities may have downstream, cumulative, or transboundary implications and will be managed through proportionate E&S assessments, including SESA where relevant. Based on lessons learned from SEADRM I, the Borrower has prepared the Environmental and Social Commitment Plan (ESCP), ESMF, SEP, and RPF to guide risk screening and mitigation. The ESMF provides procedures and tools for site-specific instruments (e.g., ESIA, SS-ESMP, RP/S-RP, EGDP, BMP, CHIA, and CHMP). For the confirmed Oudomxay subproject, required site-specific instruments will be prepared and disclosed prior to the project Eeffectiveness. CERC-related risks will be addressed through a CERC Addendum and Manual, and all technical assistance ToRs will be reviewed to ensure consistency with ESSs 1–10.
ESS2: Labor and Working Conditions	ESS2 is relevant because the Project will engage an estimated 628 workers, including PMU/CMU/PIU staff, with the majority (approximately 340 workers) being contracted workers for civil works and supervision, as well as primary supply workers. Key labor

WB's ESS	Relevance to SEADRM II Project Activities
	risks include occupational health and safety hazards associated with heavy machinery and in-channel works, as well as risks related to sexual exploitation and abuse (SEA), sexual harassment (SH), violence against children (VAC), child labor, and discrimination. A Labor Management Procedure has been prepared in line with Environmental and Social Standard 2 and the Lao PDR Labor Law (2023) to address fair treatment, occupational health and safety, worker grievance redress, and Codes of Conduct. Contractors and subcontractors will implement site-specific labor procedures, provide training, personal protective equipment, and adequate facilities, with compliance monitored regularly.
ESS3: Resource Efficiency and Pollution Prevention and Management	ESS3 is relevant as the Project will involve construction activities, including extraction and use of construction materials (stone, gravel, soil, and sand), which may generate dust, noise, exhaust emissions, construction waste, and risks of soil erosion and water pollution. Riverbank protection works may also affect water bodies through increased turbidity, sediment disturbance, or accidental spills. The ESMF provides guidance on pollution prevention and resource efficiency, including the use of licensed quarries and borrow pits and prohibition of new sites in protected or ecologically sensitive areas. Pollution prevention, waste management, and response measures will be incorporated into site-specific Environmental and Social Management Plans (ESMP) and Contractor Environmental and Social Management Plans (C-ESMP) and implemented prior to commencement of civil works.
ESS4: Community Health and Safety	ESS4 is relevant as the Project involves civil works and associated activities that may pose community health and safety (CHS) risks, including risks of children entering construction sites and drowning, traffic and road safety hazards, dust and noise, reduced access to rivers and water sources for daily livelihoods, labor influx–related risks (including sexual exploitation and abuse and sexual harassment), and communicable diseases. Climate change is expected to exacerbate these risks through increased frequency and intensity of extreme rainfall, flooding, riverbank erosion, and localized landslides, potentially affecting both communities and completed infrastructure. To address these risks, the Project will integrate climate-informed design parameters into flood protection works and require proportionate climate and geohazard due diligence. The ESMF and site-specific ESMP will include measures such as traffic management, signage, public awareness, child safety and drowning prevention, emergency preparedness and response, healthcare protocols, grievance mechanisms, and scheduling of works to minimize disruption to community livelihoods and tourism activities.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS5 is relevant due to anticipated land acquisition, resettlement, and economic displacement arising from civil works under Component 1, particularly affecting households located along riverbanks. Project-affected households and persons will be eligible for compensation and livelihood restoration in accordance with ESS5. A Resettlement Policy Framework (RPF) has been prepared to guide resettlement planning for subprojects where design and impact scopes are not yet finalized, including preparation of site-specific Resettlement Plans or Simplified-Resettlement Plans (S-RP) as required. For the Oudomxay subproject, where design and location are confirmed, an RP will be prepared, cleared, and disclosed prior to project effectiveness.

WB's ESS	Relevance to SEADRM II Project Activities
	Responsibilities, timelines, and financing arrangements are defined in the Environmental and Social Commitment Plan, and civil works will not commence until compensation and resettlement measures are fully completed.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	ESS6 is relevant as some flood protection works may be located along rivers and may cause localized impacts on biodiversity and aquatic ecosystems, including habitat disturbance, changes in water quality, disruption of migratory routes, and loss of riverbank vegetation. For example, in Luang Prabang (near the Nam Khan–Mekong confluence) and Bolikhamxay (along the Mekong River), riverbank protection works may overlap with a section of Mekong Key Biodiversity Area (KBA) between Vientiane to LPB; therefore, critical habitat assessment will be undertaken in accordance with ESS 6. Biodiversity risks and impacts will be assessed during the preparation and implementation of site-specific ESMPs, and measures to avoid, minimize, and mitigate impacts will be applied. Where significant biodiversity risks are identified, a site-specific Biodiversity Management Plan (BMP) will be prepared and implemented.
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	ESS7 is relevant as ethnic groups of Khmu and Hmong that meet the criteria of ESS7 are present in Oudomxay, Luangprabang and Luangnamtha Provinces and may be affected by project activities. These groups maintain distinct cultural identities and languages and may face barriers to meaningful participation, access to information, and project benefits. The Borrower will prepare a site-specific Ethnic Group Engagement Plan (EGEP/EGDP) for the Oudomxay subproject, building on the approach successfully implemented under the original project. The plan will ensure culturally appropriate and inclusive engagement, equitable access to project benefits, and a grievance redress mechanism tailored to the Khmu and Hmong ethnic groups. Community consultations will be conducted in local languages and in a manner consistent with cultural practices to ensure meaningful participation. The EGDP will be cleared and disclosed prior to project effectiveness, with responsibilities and timelines defined in the ESCP.
ESS8: Cultural Heritage	ESS8 is relevant as the Project includes civil works that may affect tangible and intangible cultural heritage, particularly in Luang Prabang, a UNESCO World Heritage Site. The Environmental and Social Management Framework includes a Cultural Heritage Impact Assessment (CHIA) guideline and template with screening, assessment, and mitigation measures to avoid or minimize impacts. For the Luang Prabang subproject, a Cultural Heritage Management Plan (CHMP) based on the CHIA will be prepared in close coordination with UNESCO, the Ministry of Information and Culture (Department of Heritage), relevant local authorities, and affected communities, and will be aligned with the Luang Prabang Safeguarding and Enhancement Plan. For all project sites, site-specific Environmental and Social Management Plans will include chance find procedures, and any works in or near heritage areas will be subject to consultation with relevant heritage authorities and stakeholders to ensure culturally appropriate design and implementation.
ESS10: Stakeholder Engagement and Information Disclosure	ESS10 is relevant as the Project will affect and involve a wide range of stakeholders, including urban communities, ethnic minorities, informal settlers, small businesses, and other vulnerable groups. To ensure meaningful, inclusive, and culturally appropriate engagement, the Borrower has prepared a Stakeholder Engagement Plan (SEP) that identifies affected and interested stakeholders and establishes a systematic approach to

WB's ESS	Relevance to SEADRM II Project Activities
	engagement throughout the project lifecycle. The SEP includes a functional Grievance Redress Mechanism (GRM) with village-level entry points, SEA/SH-sensitive and confidential reporting channels, and a worker GRM under the Labor Management Procedure. Engagement with vulnerable and ethnic groups will be supported through trained social consultants, collaboration with government mass organizations such as the Lao Front for National Development and Lao Women's Union, and the use of tailored Education, Information, and Communication materials in Lao and relevant ethnic languages. All ESF instruments will be consulted upon and disclosed both locally and online in accessible formats, with special attention to women, ethnic groups, and vulnerable households.

2.3 ANALYSIS OF GAPS BETWEEN WB'S ESF AND NATIONAL LAWS AND REGULATIONS

The Lao PDR has various laws and regulations that govern environmental and social risk and impact assessment and management. This legislation applies to all public and private development projects in Laos PDR. The national legislation is comprised of laws, decrees, decisions, and ministerial instructions that cover environmental protection, social safeguards, disaster risk reduction, climate change adaptation, labor, resettlement, ethnic groups, and cultural heritage.

While the GoL's legislation is broadly aligned with the objectives of the ESF, some gaps remain in terms of procedural clarity, technical requirements, institutional responsibilities, and enforcement. The gaps are more evident in the areas of stakeholder engagement, biodiversity protection, customary land rights, and labor grievance mechanisms. Table 2-6 (below) summarizes comparison between relevant Lao legislation and the WB's ESSs that apply to the SEADRM II project. It identifies gaps that exist between Laos' relevant laws and regulations, and the WB's ESS. Based on the gaps that are identified, measures to address those gaps are proposed for application under the SEADRM II.

Table 2-6 Gap Analysis of Legislative and Regulatory Framework of Lao PDR vs. World Bank ESSs

WB's ESS	World Bank Requirements	Government of Lao PDR's Requirements	Key Gaps	Measures in SEADRM II Project
ESS1 – **Assessment and Management of E&S Risks**	Requires environmental and social impact assessment, SEA for policy/TA, ESMP, stakeholder engagement, and ESCP	**Environmental Protection Law (No. 53/NA, 2024)**: Articles 44–47 require IEE/EIA and SEA. **Decree No. 389/GoL (2022)**: Defines EIA/IEE process, responsibilities, timelines. **Decision**	National legislation requires the preparation of ESIA/EIA and associated ESMPs based on project risk classification; stakeholder consultation and information disclosure	Preparation and implementation of an ESMF with screening tools and procedures for site-specific ESIA/ESMPs; SESA for selected technical assistance activities (e.g. LNT and VTE); preparation and implementation of

WB's ESS	World Bank Requirements	Government of Lao PDR's Requirements	Key Gaps	Measures in SEADRM II Project
	Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs.	**0483/MoNRE (2017)**: SEA mandated for policies, master plans. **Guideline 6616/MoNRE (2018)**: Technical guidance for SEA.	are conducted and implemented as part of the ESIA/EIA process, and ESMPs. While national regulations address commitment tracking, mitigation measures, and monitoring through Environmental Compliance Certificate (ECC) conditions, gaps remain in the consistency and effectiveness of implementation—particularly in monitoring, reporting, documentation, and enforcement which are strengthened through application of the World Bank ESF. No capacity of the project owner to implement and monitor the ESMP is required No reference to institutional capacity development and training measures.	ESCP, SEP, and RPF; clearance of site-specific instruments – and implementation of RPs - prior to works; capacity building and training on ESF implementation for PMU/PIUs and contractors.
ESS2 **– Labor and Working Conditions**	Ensure fair and safe working conditions through the LMP, including non-discrimination, prevention of child and forced labor, SEA/SH prevention, and access to a worker GRM. Provide protective measures, worker	**Labor Law (2013)**: Sets employment conditions, prohibits child labor. **Decree 22/GoL (2019)**: Requires OHS measures and inspections. **Law on Hygiene (No. 73/NA, 2019)**: Mandates workplace sanitation. **Law on Grievance Redress (No. 023/NA,**	Enforcement gaps; weak contractor oversight; SEA/SH not clearly addressed	Implementation of a LMP with OHS measures, worker grievance redress mechanism, and Codes of Conduct addressing SEA/SH; prohibition of child and forced labor; requirement for contractors and subcontractors to prepare site-specific labor procedures, provide PPE

WB's ESS	World Bank Requirements	Government of Lao PDR's Requirements	Key Gaps	Measures in SEADRM II Project
	training, emergency preparedness, and remedies, with proper documentation and reporting of accidents, diseases, and incidents.	**2016)**: Ensures right to complain.		and training; regular monitoring of labor compliance.
ESS3 – **Resource Efficiency, Pollution Control**	Pollution prevention, waste/hazardous waste management, efficient resource use	**EPL (2024)**: Sets pollution control obligations. **Decree on Pollution Control (2021)**: Covers air, water, soil standards. **Ministerial Instruction on Hazardous Waste (2015)**: Regulates waste handling. **Decree on Environmental Standards (2017)**: Emission thresholds. **Law on Water Resources (No. 23/NA, 2017)**: Encourages IWRM.	No comprehensive law on hazardous waste tracking; weak WQM/AQM enforcement	Site-specific ESMPs addressing waste management, hazardous materials, air and noise emissions, runoff and erosion control; use of licensed quarries and borrow pits only; promotion of reduce–reuse–recycle practices and efficient use of construction materials.
ESS4 – **Community Health and Safety**	Risk reduction for communities, including UXO, traffic, disease, CHS plans	**Decree 22/GoL (2019)**: Addresses worker safety with indirect community relevance. **UXO Standards (2012)**: Require risk assessment and clearance. **Law on Road Traffic (2012)**: Includes public safety provisions.	No dedicated CHS law; SEA/SH risk not integrated in CHS planning	Site-specific ESMPs incorporating community health and safety measures, including traffic and road safety, UXO risk management, child safety and drowning prevention, SEA/SH prevention, emergency preparedness and response, and climate-informed design considerations.
ESS5 – **Land Acquisition, Resettlement**	Avoid/minimize displacement, provide full compensation, restore livelihoods	**Law on Land (No. 70/NA, 2019)**: Recognizes legal and customary land rights (Art. 130). **Law on Resettlement (No.**	Limited coverage of informal land users; economic displacement procedures unclear	Preparation and implementation of a RPF aligned with ESS5; site-specific RPs or S-RPs providing compensation at replacement cost and

WB's ESS	World Bank Requirements	Government of Lao PDR's Requirements	Key Gaps	Measures in SEADRM II Project
		086/NA, 2018): Requires livelihood restoration. **Decree 84/GoL (2016)**: Defines compensation process and disclosure		livelihood restoration; land tenure screening; commencement of works only after completion of compensation and resettlement measures
ESS6 – **Biodiversity Conservation**	Avoid adverse impacts on natural habitats; define critical habitats; offset if needed	**Forestry Law (2019)**: Defines protected forest zones. **Law on Aquatic Animals and Fishery (No. 41/NA, 2023)**: Protects aquatic zones. **Law on Wildlife and Aquatic Animals (No. 42/NA, 2023)**: Protects species and habitats. **Decision No. 0866/MoNRE (2021)**: Requires biodiversity screening in EIA.	Critical habitats undefined; biodiversity offset not required by law	Biodiversity screening under the ESMF to avoid sensitive habitats; critical habitat screening where applicable; mitigation measures incorporated into site-specific ESMPs; preparation and implementation of Biodiversity Management Plans where significant impacts are identified.
ESS7 – **Indigenous Peoples**	FPIC, culturally appropriate engagement, benefit sharing	**Decree on Ethnicity (2020)**: Protects ethnic rights. **Law on Lao Front (No. 49/NA, 2018)**: Ensures participation. **Guidelines (2013)**: Require consultations with ethnic groups.	FPIC not required by law; limited bilingual or culturally adapted materials	Preparation and implementation of site-specific EGEP/EGDP integrated with the SEP; culturally appropriate consultations conducted in ethnic languages; tailored grievance mechanisms; application of Free, Prior and Informed Consent (FPIC) where required.
ESS8 – **Cultural Heritage**	Protection of tangible and intangible heritage; chance finds	**Law on National Heritage (No. 11/NA, 2021)**: Protects cultural sites. **PSMV (2019)**: Regulates Luang Prabang WH site. **Decree 03/Pres. (1997)**: Mandates heritage conservation.	No standardized national procedure for chance finds; intangible heritage underrepresented	Application of CHIA guidelines; preparation and implementation of a CHMP for heritage-sensitive sites (e.g., UNESCO World Heritage areas) in coordination with UNESCO, the Ministry of Information and Culture (Department of Heritage), and local authorities; inclusion of chance find procedures in

WB's ESS	World Bank Requirements	Government of Lao PDR's Requirements	Key Gaps	Measures in SEADRM II Project
				site-specific ESMPs and bidding documents; ongoing consultation with affected communities and heritage stakeholders.
ESS10 – **Stakeholder Engagement and Information Disclosure**	SEP, disclosure, culturally inclusive engagement, GRM Provides specific requirements for Stakeholder Analysis and Engagement Planning, Disclosure of Information, Consultation and ethnic Peoples	**Constitution (2015)**: Ensures public participation. **EIA Decree (2022)**: Requires consultation during IEE/EIA. **GR Law (2016)**: Provides national grievance pathways. **Guidelines (2013)**: Support ethnic group engagement	No legal mandate for project-level SEP or GRM; limited outreach to vulnerable	Implementation of a SEP with continuous information disclosure and consultation; establishment of accessible grievance redress mechanisms, including SEA/SH-sensitive channels; targeted engagement for women, ethnic groups, and other vulnerable stakeholders.

2.4 ENVIRONMENTAL HEALTH AND SAFETY GUIDELINES OF THE WORLD BANK

The Lao PDR Southeast Asia Disaster Risk Management Project Phase II (SEADRM II) is subject to the application of the World Bank Group's Environmental, Health, and Safety (EHS) Guidelines. The EHS Guidelines represent internationally recognized good practices for environmental and occupational health and safety management across diverse sectors. These guidelines comprise both the General EHS Guidelines (2007) and applicable Industry Sector Guidelines. In the SEADRM II context, they are applied in conjunction with national legal frameworks, including the 2019 Disaster Management Law, the 2017 Law on Meteorology and Hydrology, the 2021–2030 NSDRR, and the 2021 Nationally Determined Contributions (NDC).

For SEADRM II, the following WBG EHS Guidelines are particularly relevant:

- **General EHS Guidelines (2007)**: Applicable to all components of SEADRM II, these cover air emissions and ambient air quality, energy and water use, noise, wastewater management, hazardous materials handling, occupational and community health and safety, and construction and decommissioning.
- **Sector-Specific EHS Guidelines** (depending on the sub-project activities):
    - Waste Management Facilities**:** For flood debris management and disposal of hazardous waste arising from infrastructure damage or post-disaster activities.

- Water and Sanitation in Worker Camps: Applies to construction camps for civil works; ensures access to safe drinking water, sanitation, and hygiene consistent with ESS2 and ESS4.
- Water and Sanitation (including Sewerage): Applicable if Technical Assistance activities in Luang Prabang (LPB) and Vientiane Capital (VTE) subprojects lead to pilot interventions; ensures safe wastewater collection, treatment, and disposal in line with ESS4 and EHS standards.
- Occupational Health and Safety (OHS): Required at construction sites and worker camps. Includes provisions for first aid, Personal Protective Equipment (PPE), sanitation, emergency procedures, and worker health monitoring.
- Construction and Decommissioning: Applicable to riverbank protection, drainage, pumping stations, and related infrastructure under Component 1.
- Emergency Preparedness and Response: Embedded in both General EHS Guidelines and GIIP; essential for all CERC-financed activities and flood response infrastructure.

Good International Industry Practice (GIIP), as referenced in ESS1, encompasses proven, cost-effective, and practical methods for protecting environmental and social values. Its application is essential in Lao PDR, where national regulations may lack specificity on topics such as community safety, hazardous waste management, or worker housing conditions.

Implementation under SEADRM II will include:

- **Integration in Procurement**: Bidding documents, civil works contracts, and supervision TORs will include requirements for compliance with relevant EHS Guidelines and GIIP.
- **Site-Level Planning**: Contractors will prepare Site Specific Environmental and Social Management Plans (SS-ESMPs), which include Occupational Health and Safety (OHS) Management Plans, Emergency Response Plans, and Waste Management Plans based on EHS Guidelines and GIIP.
- **Training and Capacity Building**: Implementing agencies (e.g., DOW, DMH, FRD, DOP) will receive targeted capacity building to enhance understanding and enforcement of EHS requirements.
- **Monitoring and Supervision**: Supervision consultants will monitor contractor performance against EHS compliance indicators, and regular reporting will be required to ensure adherence.

Where there is a discrepancy between national regulations and WBG EHS Guidelines, **the more stringent standard will be applied**, in accordance with the precautionary principle, to enhance

protection of workers, communities, and ecosystems—particularly in ecologically sensitive areas such as Luang Prabang (a UNESCO World Heritage site) under Component 1.2.

2.5 INTERNATIONAL WATERWAYS

The Mekong River is a recognized international waterway that is shared by six countries and governed by international legal frameworks. The SEADRM II project shall build flood control infrastructure along tributaries of the Mekong River. Therefore, the project shall comply with applicable national laws and international obligations for the Mekong River.

The Mekong River is subject to the **1995 Mekong Agreement** signed by Cambodia, Lao PDR, Thailand, and Vietnam, which established the **Mekong River Commission (MRC)**. The Agreement sets forth the **Procedures for Notification, Prior Consultation, and Agreement (PNPCA)** for projects that may cause significant impact on the mainstream Mekong.

Additionally, under the **World Bank's OP 7.50 (Projects on International Waterways)**; any project involving the use or potential pollution of international waterways must undergo screening to determine applicability. For SEADRM II, Component 1 activities in Luang Prabang (LPB) will involve civil works along the Nam Khan River, a tributary of the Mekong River, and in Bolikhamxay (BKX) along the Mekong River itself. As both rivers form part of the international Mekong River system, OP 7.50 is triggered. The policy also applies to any additional activities with potential hydrological or ecological impacts on the Mekong River system. Once triggered, formal notification or exemption procedures through the World Bank and riparian countries will be required. Key requirements are as follows:

Table 2-7 Projects on International Waterways (OP 7.50 & 1995 Mekong Agreement)

Document	Purpose	Trigger/Applicability	Responsible Entity
International Waterways Screening Report	Determines if the project falls under OP 7.50. Assesses location, scale, and potential impacts to water quantity/quality.	Required for all SEADRM II subprojects near the Mekong or its tributaries, especially riverbank works in BKX (Mekong) and LPB (Nam Khan).	PMU/PIU with TA from PTI and E&S Consultants in coordination with WB Task Team
OP 7.50 Notification Letter	Notifies other Mekong riparians (Cambodia, Thailand, and Vietnam) via MRC or Lao PDR of the proposed project. The Government of Lao PDR, through the Ministry of Public Works and Transport (MPWT), notified the Mekong River Commission (MRC) via the Lao National Mekong Committee Secretariat (LNMCS) on 10 November	Required **unless exemption applies**. If Lao PDR refuses to notify, **World Bank** must notify or suspend processing.	Drafted by PMU, submitted via GoL

Document	Purpose	Trigger/Applicability	Responsible Entity
	2025. In accordance with OP 7.50 (Projects on International Waterways), the World Bank subsequently notified the riparian countries as follows: 16 December 2025 (China), 18 December 2025 (Cambodia, Thailand, Vietnam), and 23 December 2025 (Myanmar).		
Exemption Request under OP 7.50, Para 7(a)	Seeks exemption if the project involves only minor additions or rehabilitation works that will not adversely affect riparian flows or be affected by others.	May apply to **BKX** 6 km bank protection and minor gates **if no major water abstraction or diversion is involved**; and LPB if no major abstraction, diversion, or transboundary impact is expected.	PMU (draft), submitted via WB Country Office for internal clearance
MRC PNPCA Notification Form	Submitted to MRC Secretariat via Lao National Mekong Committee (LNMC) under the 1995 Agreement. For uses of Mekong mainstream or significant tributaries.	Required for projects on the Mekong mainstream or significant tributaries with potential for transboundary impact. Such as applies to BKX and LPB (Nam Khan) or minor tributaries.	LNMC / PMU (technical data), supported by Ministry of Agriculture and Environment (MAE)
Prior Consultation **(under PNPCA)**	Allows other MRC countries to formally review and respond to projects with potential significant cross-border impact.	**Not required** for intra-basin, small-scale projects. Required only for mainstream dry-season use or inter-basin diversions.	LNMC / MRC Joint Committee (JC)
PAD Section and Annex on International Waterways	Documents screening decision, exemption, notification status, and any responses from riparians. Mandatory under WB project processing.	Mandatory for all projects involving international waterways as part of Project Appraisal Document (PAD).	WB

2.6 CULTURAL HERITAGE

2.6.1 Government

The Government of Laos establishes a comprehensive legal framework for the protection, preservation, and sustainable use of cultural and natural heritage, including UNESCO World Heritage properties. The Law on National Heritage, No. 11/NA (2021) has established a legal framework that aims to protect and preserve for sustainable use of cultural and natural heritage, including UNESCO World Heritage properties. The Law also defines responsibilities for central and provincial authorities, procedures for approving works within heritage zones, and coordination with international conventions. In addition, regulations and management plans may

apply to specific heritage sites, providing detailed guidance on zoning, planning controls, conservation requirements, and environmental safeguards. These instruments typically define heritage core zones, buffer zones, and protected areas; outline restrictions on construction or infrastructure works; and set standards for maintaining cultural authenticity and integrity.

2.6.2 UNESCO World Heritage Site

Laos, as a State Party to the 1972 World Heritage Convention, is also responsible for safeguarding any UNESCO World Heritage properties within its territory. For projects that may affect such properties or their buffer zones, the authorities apply relevant national regulations and site management plans and may require a Cultural Heritage Impact Assessment (CHIA) in line with UNESCO / ICOMOS guidance.

According to the updated **CHIA Guidelines (April 2021)** and UNESCO's Operational Guidelines (Decision 44 COM 7B.100), any project potentially affecting the **Outstanding Universal Value (OUV)** of the World Heritage Site must undergo a CHIA. This includes evaluating physical, visual, and setting impacts, as well as alignment with traditional urban forms, materials, and cultural practices.

The CHIA should align with:

- PSMV zoning and architectural codes.
- Avoidance of physical and visual intrusion in the protected urban fabric.
- Preservation of traditional construction methods and landscape view sheds.
- Stakeholder engagement with local authorities (DOH) and UNESCO.

2.6.3 Community

In addition to cultural heriatages that are governed under national laws and regulations, and under UNESCO for World Heritag Sites, there may be cultural heriage that are recognized by local community. Cultural heriage recognized at by local communities may include both tangible and intangible heritage. Community's cultural heritage may include landscapes, trees, plants, forest, rocks, streams, rivers, or specific locations that are used for cultural or religious practices and thus considered sacred.

3. ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS

3.1 PROJECT LOCATION AND ACTIVITIES

The SEADRM II Project will support an integrated program of urban flood risk management, hazard monitoring and early warning, and disaster risk financing. Under Component 1 (Integrated Urban Flood Risk Management), indicative priority investments focus on high-risk urban areas located at river confluences, including Muang Xay (Nam Kor/Nam Mao), Luang Prabang

(Mekong/Nam Khan), and Paksan (Mekong/Nam San). The Project is expected to finance approximately 19.33 km of riverbank protection across these locations, supplemented by flood gates in Luang Prabang and Paksan, with an indicative protection benefit of about 47,967 people and 6.81 km² of urban area (Muang Xay: 9.36 km; Luang Prabang: 4.67 km; Paksan: 5.3 km). In Vientiane Capital, the Project will support an integrated approach through feasibility assessments and detailed engineering designs for priority flood risk management measures. These locations and intervention footprints remain indicative and will be confirmed/refined through feasibility studies and detailed design, consistent with the mitigation hierarchy and ESMF screening requirements.

Under Component 2 (Strengthening Hazard Monitoring and Early Warning Systems), the Project will help address key constraints in Lao PDR's hydromet and early warning capacity, including the fact that many stations and systems installed by multiple development partners are partially functional or non-functional, and require rehabilitation, integration, and operational strengthening (including enabling facilities and data systems).

Under Component 3 (Financial Planning for Disaster Resilience), the Project builds on progress in disaster risk financing supported under SEADRM and the ongoing RETF (P505224), including improvements to the policy framework, contingency planning, payout procedures, E&S capacity, and independent audit arrangements for the use of disaster risk insurance payouts. It also supports continued refinement of risk financing instruments and operating procedures to improve the timeliness, transparency, and effectiveness of post-disaster financing.

Details of the indicative investments/locations, technical background, and economic and climate stress-testing assumptions are provided in the Project Appraisal Document (PAD), Annex 2 (Technical Annex).

3.2 ENVIRONMENTAL BASELINE CONDITIONS

Lao PDR is characterized by diverse topography, rich ecosystems, and extensive forest cover, yet it is increasingly vulnerable to environmental degradation and climate change. Approximately 80% of the country is mountainous, interspersed with major river systems such as the Mekong, Nam Khan, Nam Tha, Nam Kading, Nam Ngean, and Nam Xan, which play vital roles in agriculture, hydropower, and livelihoods (MONRE, 2020; DMH, 2023). The Mekong River, in particular, is a key transboundary waterway influencing flood dynamics across multiple provinces, especially during the wet season when backflow and river overflow are common (MRC, 2022).

The five project provinces under SEADRM II including Luang Namtha, Oudomxay, Luang Prabang, Bolikhamxay, and Vientiane Capital—represent a mix of ecological zones ranging from highland watersheds to lowland floodplains and urban centers. These provinces are increasingly exposed to hydrometeorological hazards including flash floods, riverine floods, landslides, and erosion due to intensified rainfall, land-use changes, and infrastructure development (UNDP, 2022).

- **Luang Namtha** is located in the northernmost part of Lao PDR, sharing borders with China and Myanmar. The province spans approximately 9,325[5] km² and comprises five districts: Namtha, Sing, Long, Viengphoukha, and Nalae. Luang Namtha District serves as the provincial capital. The province is predominantly mountainous and has large forest areas, but increasing deforestation and shifting cultivation contribute to runoff and erosion. Flash floods, landslides, and erosion are common during the rainy season (LNT FS Report, 2024).
- **Oudomxay**, situated in the northwestern region, covers around 15,370 km² and consists of seven districts. The capital is Muang Xay. The province is characterized by rugged topography, with steep slopes and narrow valleys prone to flash floods and landslides. Forests cover approximately 70% of the land area, though there has been gradual degradation due to agriculture and infrastructure expansion. Erosion and sedimentation further heighten flood risks (ODX FS Report, 2024).
- **Luang Prabang** lies in north-central Lao PDR, encompassing 16 districts with a total area of about 16,875km². Luang Prabang City is both the capital and a UNESCO World Heritage site. The province is drained by the Mekong and Nam Khan Rivers and features mountainous terrain interspersed with valleys. Environmental risks include hillside erosion, sedimentation, and urban waterlogging. The loss of natural floodplain and rapid urban growth challenge resilience (LPB FS Report, 2024).
- **Bolikhamxay** is centrally located and spans roughly 14,863 km², divided into seven districts, with Paksan as the provincial capital. Major rivers like the Nam Kading, Nam Xan, and Mekong traverse the province. The region is primarily lowland, supporting agriculture, but suffers from recurrent flooding, sedimentation, and bank erosion. Drainage infrastructure is outdated, and floodplains are increasingly encroached (BKX FS Report, 2024).
- **Vientiane Capital**, the administrative and economic hub of Lao PDR, covers 3,920 km² and includes nine districts. The urban sprawl and rapid development have placed immense pressure on wetlands and flood retention zones. Drainage congestion and unmanaged waste exacerbate pluvial flood risks. The city lies in the Mekong floodplain and is subject to both seasonal overbank flows and urban flash floods (DPWT VTE Proposal, 2025).

Across all project provinces, changes in land use, particularly deforestation and unplanned urbanization, have diminished natural flood buffers. Forest cover, although still significant in Northern provinces, is declining. Environmental monitoring remains uneven across provinces. While the Department of Meteorology and Hydrology (DMH) has expanded the hydromet

[5] https://www.citypopulation.de/en/laos/cities/

network, many areas still lack real-time data, limiting flood forecasting and early warning capabilities. Biodiversity is also under pressure from land-use changes, infrastructure development, and climate stressors (DMH, 2023; MONRE, 2020).

Climate projections for Lao PDR predict a 1–4°C temperature increase and 23% rise in rainfall intensity under worst-case scenarios (SSP5-RCP8.5). This will likely amplify the frequency and severity of extreme weather events, especially floods, droughts, and landslides, affecting both ecosystems and infrastructure across the country (World Bank Climate Portal, 2023).

3.3 BIODIVERSITY – MEKONG RIVER

While most of the project activities will be situated in flood-prone urban and peri-urban areas, the proposed LPB sub-project located in LPB province is within the Mekong River which is a Key Biodiversity Area (KBA) with high biodiversity values as confirmed in the process of compiling the revised 2011 CEPF Ecosystem Profile for the Indo-Burma Hotspot (2012). Some project activities can also be proposed in the potentially degraded ecologically sensitive wetlands in LNT and VCC but not designated as any legal status of protected area or part of RAMSAR Convention. The Mekong supports one of the world's most productive inland fisheries and functions as a critical migration corridor for numerous fish species of regional and global conservation importance.

Within and adjacent to proposed subproject locations, local communities depend on the Mekong River for multiple livelihood activities, including capture fisheries, riverbank and floodplain gardening, and river-based tourism activities such as boating services, riverside restaurants, and small hospitality enterprises. These livelihood activities are closely linked to seasonal hydrology, river morphology, sediment deposition, water quality, and access to nearshore and riparian zones. According to MRC and FAO assessments, changes to river flow, sediment regimes, or aquatic habitats can directly affect fisheries productivity, riverbank cultivation cycles, and the economic viability of tourism activities that rely on navigability, scenic value, and water quality.

Civil works planned under the Project such as riverbank protection and flood gates may interact with key ecological and socio-ecological processes, including river morphology and sediment transport, hydrological connectivity between the main channel and floodplains, aquatic and riparian habitats, and navigation and river-use patterns. These interactions may have implications not only for biodiversity values but also for ecosystem services that underpin local livelihoods and tourism.

Given the Mekong River's status as a KBA and high-biodiversity aquatic system, and its critical role in sustaining fisheries, riverbank agriculture, and tourism-based livelihoods, subprojects involving in-river or riverbank works may pose risks to natural and critical habitats under World Bank ESS6. Accordingly, site-specific Environmental and Social Impact Assessments (ESIAs) will include a critical habitat assessment (if required) including a detailed baseline assessment of

aquatic biodiversity, fisheries, riverbank gardening practices, tourism activities, and community resource use at each subproject location.

Based on the ESIA findings, appropriate mitigation and management measures will be incorporated into site-specific Environmental and Social Management Plans (ESMPs) and, where high biodiversity values or critical habitats are present, into dedicated Biodiversity Management Plans (BMPs). These measures will be developed in accordance with the mitigation hierarchy (avoid, minimize, restore, offset) and will aim to protect biodiversity values while maintaining or restoring community access to fisheries resources, riverbank cultivation areas, and tourism-related livelihood opportunities, consistent with ESS6, ESS1, and ESS10.

3.4 SOCIAL BASELINE CONDITIONS

Lao PDR has a population of approximately 7.6 million[6], comprising over 50 ethnic groups with diverse languages, cultures, and livelihoods. The country remains predominantly rural, with around 70% of the population engaged in agriculture. Poverty and vulnerability persist, particularly among ethnic minorities, women, and remote upland communities with limited access to services (UN Country Annual Results Report, 2023).

The project provinces encompass diverse ethnic, demographic, and socioeconomic characteristics, with communities frequently facing barriers to services, infrastructure, and disaster preparedness. Agriculture is the dominant livelihood across most provinces, except in Vientiane Capital where the economy is largely urban and service-based (MPI, 2023).

- **Luang Namtha** has a population of over 212,000 people, comprising multiple ethnic groups such as Tai Dam, Akha, and Hmong. Many communities are in remote areas with limited access to health, education, and markets. Poverty and reliance on subsistence farming heighten vulnerability to natural disasters.
- **Oudomxay**, with approximately 366,000 residents, is ethnically diverse and includes Khmu, Hmong, and Lao Loum communities. Disparities in access to basic infrastructure are common, particularly in upland villages. Recurrent flooding often isolates communities and disrupts livelihoods and mobility (ODX FS Report, 2024).
- **Luang Prabang**, with a population of around 481,000, has a mix of urban and rural communities. The tourism sector is a key economic driver, though vulnerable to climate shocks. Informal settlements and heritage conservation zones face competing pressures in flood-prone areas.

6 https://laosis.lsb.gov.la/tblInfo/TblInfoList.do?rootId=2101000&menuId=2101101&lang=lo&keyword=&searchType=undefined

- **Bolikhamxay** has about 336,000 inhabitants. Rural populations depend heavily on rice farming and fishing. Floods regularly affect agriculture and transport, with recurring damage to homes and assets. Limited early warning systems and uneven disaster response capacity are key challenges (BKX FS Report, 2024).
- **Vientiane Capital** houses over 1,029,000 people and has seen rapid population growth. Urban poor and informal settlements are especially vulnerable due to inadequate infrastructure and limited social protection mechanisms. The population includes internal migrants seeking better employment opportunities but facing housing insecurity in high-risk flood zones (DPWT VTE Proposal, 2025).

3.5 LUANG PRABANG (LPB)'s UNESCO WORLD HERITAGE SITE

Luang Prabang is a UNESCO World Heritage City, inscribed in 1995 for its Outstanding Universal Value (OUV) derived from a unique combination of historic urban fabric, religious architecture, cultural landscape, and living traditions. The World Heritage property is managed under the Master Plan for Conservation and Development (PSMV), which regulates land use, construction, drainage, vegetation, and visual integrity across designated heritage zones.

Tangible cultural heritage in Luang Prabang is extensive and diverse. As of 2021, the official heritage inventory includes 611 buildings, comprising 167 religious structures and 443 civil buildings. Approximately 55.5% of these buildings have been renovated, while 42% remain unrenovated, with varying conditions ranging from good to poor. This status reflects both progress in conservation and the continued need for careful management to safeguard the city's OUV. The townscape is characterized by a harmonious fusion of traditional Lao wooden architecture and colonial-era brick buildings, complemented by highly significant Buddhist temples, including Wat Xieng Thong, one of the most important religious and architectural landmarks in the city. The built heritage is closely integrated with the natural setting, including Mount Phousi, riverbanks, wetlands, and urban green spaces.

Intangible cultural heritage (ICH) is a defining element of Luang Prabang's OUV and is expressed through long-standing religious practices, festivals, traditional livelihoods, craftsmanship, culinary traditions, and social customs. In 2021, provincial authorities formally recognized 14 elements of intangible cultural heritage at the provincial level, with ongoing efforts to expand documentation through an electronic gazette. Major annual cultural events such as the boat racing festival (Boun Xouang Heua), the candle-light festival (Boun Lai Heua Fai), and the Lao New Year Festival are closely linked to the Mekong River and Nam Khan River and remain central to community life and tourism.

The proposed SEADRM II subproject in Luang Prabang includes riverbank protection works along the Nam Khan River, located within the World Heritage protection zone ZPP-N (Nature Zone) and outside the core urban heritage zones (ZPP-Ua and ZPP-Ub). While the subproject aims to reduce

flood and erosion risks threatening heritage assets, infrastructure, and livelihoods, works within the World Heritage property may result in temporary or indirect impacts on the physical fabric, visual setting, access, and cultural practices if not properly managed.

Accordingly, detailed baseline surveys and impact assessments will be undertaken through site-specific ESIA and Cultural Heritage Impact Assessment (CHIA) during subproject preparation. These assessments will document the condition, use, and sensitivity of both tangible and intangible cultural heritage, including buildings, religious sites, cultural landscapes, festivals, and tourism-related activities. Based on the assessment findings, appropriate mitigation and management measures will be incorporated into the ESMP and Cultural Heritage Management Plan (CHMP), ensuring compliance with the PSMV, national heritage legislation, and World Bank ESS8 and UNESCO's CHIA Guideline, while safeguarding the Outstanding Universal Value of the Luang Prabang World Heritage City.

3.6 DISASTER AND FLOOD

Lao PDR is highly exposed to natural hazards, with flooding being the most prevalent and damaging disaster type. Between 2000 and 2024, the country experienced at least 31 recorded natural disasters, primarily floods and storms, affecting over 4.3 million people and causing economic damage exceeding US$595 million (EM-DAT, 2025). The impacts of these events are intensified by the country's topography approximately 80 percent mountainous terrain—and climate variability, which make the country particularly vulnerable to riverine and flash floods.

The Mekong River and its tributaries flood seasonally, particularly during the monsoon period from July to September, posing significant threats to human settlements, infrastructure, and livelihoods across low-lying regions. Urban centers situated along riverbanks and floodplains are especially at risk due to the combination of seasonal flood pulses, unregulated dam releases, and changing precipitation patterns linked to climate change. Annual expected losses from floods in Lao PDR are estimated to range from 2.8 to 3.6 percent of GDP. Events historically expected to occur once in 100 years may now occur every 25 to 50 years, reflecting increased flood frequency and severity.

The collapse of the Xe Pian-Xe Namnoy dam in 2018, which resulted in over 70 deaths and the displacement of thousands, illustrates the compounded risk posed by structural failures during extreme weather events. Moreover, the effects of flooding are not evenly distributed—ethnic minorities, rural populations, persons with disabilities, and female-headed households tend to bear the brunt of impacts, reflecting underlying social and economic vulnerabilities.

Climate change is intensifying the frequency and severity of such events. Temperatures in Lao PDR are projected to rise by over 4°C by 2100 in a pessimistic scenario, with more intense short-duration rainfall events and extended dry periods. These shifts are increasing the incidence of

flash flooding, landslides, and severe droughts, further straining infrastructure, livelihoods, and public health systems.

In addition to natural flood hazards, Lao PDR is also the most UXO-contaminated country in the world, compounding the challenges of emergency response and community safety in rural and flood-prone areas.

Provincial Flood and Disaster Risk Profiles

The SEADRM II Project targets, initially, five provinces including Oudomxay, Luang Prabang, Bolikhamxay, Vientiane Capital, and Luang Namtha, each with distinct flood risk profiles and exposure levels as summarized below:

Oudomxay Province (ODX)

Oudomxay Province, located in the northwestern highlands of Lao PDR, faces persistent risks of flash floods and landslides due to its steep terrain, intense rainfall, deforestation, and sediment-filled waterways. Muang Xay, the provincial capital, is particularly flood-prone as it sits in a valley with limited drainage infrastructure. Major flood events in 2013, 2018, and 2022 caused widespread damage to roads, housing, and public facilities. The ongoing SEADRM I project has delivered over 5 km of riverbank protection in Muang Xay, benefiting more than 15,000 residents. However, recurring urban flooding and river erosion highlight the need for further investment. In response, ODX has proposed to SEADRM II a comprehensive intervention package that includes expansion of flood protection infrastructure in Muang Xay, construction of riverbank reinforcements along critical waterways, improvement of drainage and stormwater management systems, and installation of flood early warning systems. These measures aim to build long-term resilience against climate-induced disasters while protecting vital public assets and communities.

Luang Prabang Province (LPB)

Luang Prabang, a UNESCO World Heritage site located at the confluence of the Mekong and Nam Khan rivers, faces recurring flood risks from both riverine and flash flood sources. Its steep mountainous terrain contributes to surface runoff and hillside erosion, while seasonal rises in river levels inundate low-lying urban areas. Major floods, such as those in 2018, caused widespread damage to homes, infrastructure, and cultural heritage zones, disrupting daily life and economic activity. Contributing factors include inadequate stormwater drainage, narrow culverts, floodplain encroachment, and unregulated urban growth. The city's status as a heritage site necessitates flood protection solutions that integrate cultural and environmental safeguards to preserve its historical value while reducing vulnerability to climate-induced hazards.

Bolikhamxay Province (BKX)

Bolikhamxay Province, located in the central lowlands of Lao PDR, is highly vulnerable to fluvial flooding from the Mekong, Nam Kading, and Nam Xan rivers. Flooding regularly impacts agricultural land, Paksan urban areas, and infrastructure such as National Road No.13, causing erosion, displacement, and economic losses. The 2018 and 2020 floods severely disrupted communities and exposed deficiencies in existing embankments and drainage infrastructure. To address these challenges, Bolikhamxay has proposed support under SEADRM II for (i) feasibility studies and detailed design for bank protection and river improvement works along key flood-prone rivers; (ii) drainage improvement and pumping stations in Paksan Municipality; and (iii) early warning system installations and hydromet monitoring expansion. These measures aim to enhance flood resilience, improve disaster preparedness, and reduce vulnerability to climate-induced hazards.

Vientiane Capital (VTE)

Vientiane Capital, the most urbanized and densely populated area in Lao PDR, faces growing flood risks from both riverine and pluvial sources. Rapid urbanization, unregulated development, and wetland encroachment have increased pressure on the city's aging and insufficient drainage systems—many of which lack proper mapping or digital records. In 2023, intense rainfall overwhelmed existing infrastructure, causing severe road closures and service disruptions. Large portions of the city lie in low-lying areas near the Mekong River, where poor waste management and limited strategic planning further worsen waterlogging and flash flooding. While not part of the original SEADRM project, The Department of Public Works and Transport (DPWT) has formally requested support for upgrading drainage in key urban zones (Nongtha-T4, Phontong-Chommany, and Xaysettha), rehabilitating the Nongping drainage system, and constructing new drainage infrastructure in Dongpaleb and Dongnaxok Neua.

Luang Namtha Province (LNT)

Luang Namtha Province, situated in the mountainous northern highlands of Lao PDR, is increasingly vulnerable to flash floods and landslides, particularly in remote communities with poor road connectivity, limited drainage, and inadequate hydrological monitoring systems. These conditions hinder timely disaster preparedness and emergency response, and climate variability has led to more intense and unpredictable rainfall patterns. In September 2024, Typhoon Yagi triggered severe flash floods across five districts—Namtha, Long, Viengphoukha, Sing, and Nalae affecting over 67,400 people in more than 100 villages, destroying 155 homes, inundating the provincial airport and hospital, and damaging 450 hectares of rice fields and livestock (AHACentre, 2024). Nearly 1,990 residents were evacuated to temporary shelters, with emergency support provided by the government and partners such as Save the Children, UNICEF, and WFP (Save the Children, 2024). Luang Namtha is seriously affected by climate-related disasters. In response, the province requested SEADRM II support for a full intervention package covering a Provincial Master Plan, studies and designs for 40 km of riverbank protection along

the Nam Tha, Nam Ngean, and Nam Thoung rivers, riverside and cultural park development, and the installation of hydrological monitoring and early warning systems.

Climate Change and Hydrological Hazards

Projections indicate that Lao PDR will face rising temperatures and more intense rainfall events in the coming decades. Rainfall intensity during extreme events could increase by 23% under the SSP5-RCP8.5 scenario. This trend will likely lead to more frequent flash floods, riverbank erosion, and sedimentation. In upstream provinces like ODX, flash floods and landslides will increase, while lowland provinces like BKX will experience worsening inundation and drainage overflow.

Table 3-1 Summary of Key Flood Risk Characteristics by Province

Province	Main Hazards	Key Flood Sources	High-Risk Areas	Infrastructure Gaps and Climate Trends
Luang Prabang	Flash floods, riverine floods, landslides, urban drainage congestion, backflow from high Mekong and Khan river levels	Mekong River, Nam Khan, Nam Ou, Nam Xuang	Urban core along Mekong and Nam Khan, low-lying riverside areas	Inadequate drainage and embankments, encroachment on floodplains. Backflow from Mekong intensified by upstream dams (e.g., China, Xayaburi) contributes to inundation. Climate change is expected to increase intensity of rainfall and shorten onset time of flash floods.
Bolikhamxay	Seasonal river flooding, flash floods, embankment overtopping, backflow from high Mekong levels and erosion	Mekong River, Nam Xan, Nam Kading, Nam San	Paksan municipality, low-lying areas in Pakxan District and Borikhan District, Nam Xan delta	Ageing embankments, insufficient drainage canal capacity. Mekong upstream dam discharges lead to rising water levels and backflow in tributaries. Climate change is likely to prolong flooding periods and increase frequency of compound events (dam releases + storms).
Oudomxay	Flash floods, landslides, sedimentation, backflow in basin areas during extreme rainfall	Nam Kor, Nam Beng, Nam Mao, Nam Hin	Muang Xay urban basin and valley settlements	Mountainous terrain contributes to high runoff velocity. Narrow river channels and blocked drains worsen impacts. Less influenced by Mekong, but local hydropower on Nam Ou and Nam Beng may amplify flood risks. Climate change expected to raise storm intensity and flash flood frequency.
Vientiane Capital	Urban flooding, canal overflow, Urban flooding, waterlogging flash floods, backflow from high Mekong levels	Mekong River, Houay Mak Hiao, Nong Chan Canal, Houay Namsang, Houay Khong, Nong Ping	Chanthabouly, Sikhottabong, Xaythany, low-lying downtown, Dongpalan area	Inadequate and clogged urban drainage systems. Informal settlements in flood-prone zones. Backflow through city drainage from Mekong exacerbated by upstream dam operations. Increasing stormwater from climate change puts pressure on poorly maintained urban canals.
Luang Namtha	Flash floods, localized inundation, dam overflow/backflow from Nam Tha dams	Nam Tha, Nam Dee, Nam Ma, Nam Long	Luang Namtha town, Muang Sing basin, riverside and road-adjacent communities	Sudden dam discharges (e.g., Nam Tha 1 and 2) raise flood risks. Inadequate flood buffers along Nam Tha. Local backflow and ponding during storm events worsen flooding. Climate projections show higher precipitation intensity and temperature, increasing landslide and flash flood risks.

4. ENVIRONMENTAL & SOCIAL RISKS AND IMPACTS, AND MITIGATIONS MEASURES

The SEADRM II Project will support an integrated package of disaster risk management investments across key flood-prone urban areas in Lao PDR, with primary interventions in Luang Prabang (LPB), and Bolikhamxay (BKX), and complementary analytical and planning activities in Luang Namtha (LNT), and Vientiane Capital (VTE).

The Project is financed through US$60 million in IDA resources and is structured around five components. Component 1 (Integrated Urban Flood Risk Management) finances large-scale structural and non-structural flood risk reduction measures, including riverbank protection, flood gates with pumping stations, drainage improvements, and nature-based solutions, alongside feasibility studies, detailed designs, construction supervision, and resettlement support. Component 2 (Strengthening Hydromet Monitoring and Early Warning Systems) focuses on improving the functionality and sustainability of the national hydrometeorological network through equipment refurbishment, ICT upgrades, early warning dissemination pilots, and capacity building, implemented in coordination with the EW4All Roadmap and complementary grant financing. Component 3 (Financial Planning for Disaster Resilience) supports continued access to pre-arranged disaster risk insurance and strengthens national systems for post-disaster financial management and adaptive social protection. Component 4 (Project Management and Coordination) supports overall project coordination, fiduciary management, monitoring and evaluation, and the mainstreaming of disaster risk management into national planning processes. Component 5 is a zero-allocation Contingency Emergency Response Component (CERC), allowing rapid reallocation of funds in the event of an eligible emergency

These above project interventions aim to reducing flood risks, strengthening disaster and climate resilience, improving post-disaster response capacity, and promoting inclusive, climate-resilient development which brings about overall environmental, social, and economic benefits for target areas. The project, however, also gives rise to environmental and social impacts and risks due to construction activities for flood control across the five project provinces. The physical works located nearby or within in the UNESCO World Heritage zones which potentially affect ethnic minority communities, riverine, and/or wetland ecosystems.

The section below presents the overall positive impacts of the project investment, followed by environmental and social risks, adverse impacts, and proposed mitigation measures.

4.1 POSITIVE IMPACTS

Built on the success of SEADRM and relevant projects, the SEADRM II Project aims to strengthen Lao PDR's resilience to natural hazards and climate change. To achieve this, the project is structured to

deliver transformative environmental, social, and institutional outcomes – through select, important investments that potentially improve resilience and capacity in integrated flood protection, nature-based solutions, early warning system upgrades, and financial protection mechanisms in the project provinces.

Key Project's Positive Impacts include:

- **Reduced flood risks and improved protection of livelihoods and infrastructure in flood prone area**: Upgraded riverbank protection, drainage systems, pumping stations, and canal improvements in urban centers will reduce the frequency and severity of flooding in highly vulnerable areas in the project provinces. These works will safeguard households, schools, roads, health facilities, and critical public infrastructure.
- **More climate-smart public and recreational spaces created**: Green infrastructure (e.g., riverfront parks, urban promenades, tree-lined flood embankments) will serve both flood management and social functions—enhancing public space that support tourism and small business activity (e.g., markets), and improve community well-being.
- **Strengthened hydrometeorological monitoring and early warning systems**: By upgrading and improving effective functioning of key weather and water monitoring stations, SEADRM II will can reduce risks to assets and lives which saves lives and avoid losses – particularly in key urban centers where enhanced flood protection investments will strengthen early warning capabilities, ensuring a balance between project costs and socioeconomic benefits.
- **Enhanced financial protection**: Continued access to regional sovereign flood insurance through SEADRIF, combined with enhanced coordination among the Ministry of Finance (MOF), Ministry of Labor and Social Welfare (MoLSW), and disaster management committees, will ensure rapid deployment of funds for post-disaster response and recovery.
- **Improved Institutional capacity building**: The project will strengthen the technical, operational, and financial capabilities of implementing agencies such as the Department of Waterways (DOW), Department of Meteorology and Hydrology (DMH), and Financial Regulatory Department (FRD). This includes training on E&S standards, adaptive planning, and financial risk management.
- **Improved Inclusive benefits and Gender equity**: Vulnerable groups including women, the poor, persons with disabilities, children, LGBTQ individuals, older adults, and displaced persons (migrants), could benefit from project's targeted support – such as access to improved public spaces, enhanced livelihood protection, and increased income generation opportunities.
- **Alignment with climate goals and green growth strategies**: SEADRM II supports Lao PDR's NDCs, Climate Change Strategy (2023), and Sustainable Development Goal (SDG) targets by

reducing greenhouse gas emission, access to improved resilient infrastructure, and integrating nature-based solutions into urban design for flood control purposes.

4.2 NEGATIVE ENVIRONMENTAL &SOCIAL IMPACTS AND RISKS

The SEADRM II Project involves a range of environmental and social (E&S) considerations, largely driven by civil works under Component 1 and, to a lesser extent, by interventions under Components 2–5. The project footprint in urban and peri-urban settings, including areas of cultural heritage importance and ethnic communities, requires careful planning, consultation, and management of potential impacts.

. **Key Environmental Risks:**

- **Pollution:** Temporary air, noise, vibration, and water pollution from construction, material transport, dredging, and poor waste/hazardous material handling. Risk of soil contamination and localized flooding from blocked drainage.
- **Soil erosion & sedimentation:** Earthworks, excavation, and stockpiling may destabilize riverbanks and upland sites, affecting water quality and aquatic habitats.
- **Biodiversity:** Vegetation clearance, water diversion, and riverbank works may disturb aquatic species, migratory routes, and riparian habitats.
- **Hydrology:** Works in floodplains may alter groundwater recharge and flood dynamics.
- **Hazardous & electronic waste:** Mismanaged fuel, lubricants, chemicals, and obsolete hydromet/ICT equipment could pollute soil and water.
- **UXO:** Excavation could pose risks to workers and communities.
- **Cultural heritage:** Potential damage to tangible and intangible values in UNESCO World Heritage zones through vibration, non-compliance with codes, and visual/landscape alteration.
- **Upstream planning risks:** Poorly designed master plans or feasibility studies without SESA and consultation could cause indirect or cumulative land use, biodiversity, and social impacts.

Key Social Risks:

- **Land acquisition & livelihoods:** Permanent loss of land/assets and temporary disruption of access, income, and services for households. Risks of exclusion for informal settlers, renters, and squatters.
- **Labor & OHS:** Accidents (falls, electrocution, traffic), inadequate PPE, unsafe worksites, long hours, and risks of child or forced labor.

- **SEA/SH & GBV:** Risks for female workers and community members during construction and labor influx.
- **Vulnerable groups:** Ethnic minorities, the poor, women-headed households, elderly, persons with disabilities, LGBT individuals, children, migrants and non-Lao speakers face barriers to consultation, information, and benefit sharing.
- **Cultural sensitivity:** Limited understanding of ethnic norms and gender dynamics could reduce effective engagement and exacerbate exclusion.
- **Community health & safety:** Risks of drowning (as seen in SEADRM I), road accidents, communicable diseases (COVID-19, HIV/AIDS, dengue, malaria), and disruption to community access.
- **Information access & participation:** Weak, late, or inaccessible stakeholder engagement may lead to exclusion, disputes, and erosion of community trust, especially in heritage and ethnic areas.
- **Institutional capacity:** Weak coordination, delayed safeguards supervision, inadequate contractor capacity, and under-resourced GRMs undermine risk management. Strengthening ESF capacity, contractor criteria, and grievance systems is critical.

A detailed summary of the identified environmental and social risks, potential impacts, and proposed mitigation measures by ESS is presented in Table 4-1.

Table 4-1 Summary of E&S Risks, Negative Impacts and Proposed Mitigation Measures by WB's ESS

WB's ESS	Key Risks and Impacts	Proposed Mitigation Measures / Instruments
ESS1: **Assessment and Management of Environmental and Social Risks**	• E&S risks from civil works (dikes/embankments/drainage) • Dust, noise, vibration from site prep/excavation/transport/machinery • Water pollution from runoff, spills, drainage blockage, unapproved material sourcing, spoil disposal/land filling • Soil contamination from hazardous waste (oil/fuel/lubricants/solvents) • E-waste from ICT and hydromet/early warning equipment • Soil erosion from vegetation clearance, earthworks, slope cutting, stockpiling • Worker fishing/hunting affecting aquatic species • UXO risks during excavation/grading/compaction • Visual/landscape impacts in sensitive/heritage areas • insufficient capacity for the preparation and implementation of E&S mitigation measures leading to direct/indirect/cumulative E&S impacts • Potential downstream environmental and social impacts arising from the future implementation of feasibility studies, master plans, and strategic studies financed under the Project • Insufficient stakeholder engagement excluding vulnerable groups and triggering CHS/cultural conflicts/land-heritage disputes and loss of trust • Phase 1 lessons: weak contractor capacity, weak supervision, limited safeguards staffing causing delays • Limited ESF experience within key agencies; need for E&S focal points/technical support • Weak coordination and inactive/under-resourced GRMs	• Apply ESMF (E&S screening tools/procedures and mitigation measures) for all project's financed activities including technical assistance (TA) to determine E&S risk and required instruments. Identified E&S measures will also be integrated into project design. • Prepare/implement site-specific instruments as required: ESIA, SS-ESMP, C-ESMP, BMP, CHIA, CHMP, RP/ARAP, EGEP/EGDP, WMP, etc. • Apply SESA for MP/FS/policy TA; screen cumulative and transboundary impacts where relevant; apply ToR and output review procedures per ESCP • Implement ESCOP including standardized e-waste procedure for ICT/hydromet equipment (handling, storage, recycling, disposal) • Establish and operate GRM at all levels; continuous consultation/outreach and disclosure per SEP • Ensure adequate E&S staffing/supervision and resources per ESCP (E&S focal points, consultants, supervision support); strengthen contractor selection and oversight • Implement bi-annual ESHS reporting and monthly contractor/supervision reporting; incident notification within 48 hours and corrective actions per ESCP/ESIRT • Apply LCP for insurance payout–financed activities to ensure proportionate and practical E&S risk management
ESS2: **Labor and Working Conditions**	• Exploitative conditions, lack of contracts, weak grievance access • OHS risks from heavy machinery/vehicles, excavation/in-channel works, night works, hot works, electrical/confined space risks • Exposure to hazardous materials; water safety risks; heat stress and disease • Labor influx leading to SEA/SH risks and pressure on local services	• Implement LMP (incl. CoC) and mainstream into SS-ESMP/C-ESMP; require contractors' site labor procedures • Provide PPE, OHS induction and ongoing training, supervision, safe working hours, adequate lighting/security for night works • Establish worker GRM prior to engagement; ensure

WB's ESS	Key Risks and Impacts	Proposed Mitigation Measures / Instruments
	• Forced labor/child labor risks; discrimination risks • Transport-related incidents and community tensions due to weak site supervision • Primary supply worker risks	accessible channels for vulnerable/ethnic workers • Prohibit child labor (<18) and forced labor; manage primary supply chain risks • Integrate SEA/SH prevention and response measures (CoC, training, reporting/referral pathways) and monitor compliance • Cascade ESCP/LMP requirements to subcontractors through procurement/contract ESHS clauses; regular compliance monitoring and 48-hour incident reporting per ESCP
ESS3**: Resource Efficiency and Pollution Prevention**	• Dust/noise/exhaust emissions from extraction and construction activities • Waste generation and improper disposal (solid and hazardous) and fuel/chemical leaks • Soil disturbance and erosion/sedimentation from earthworks, stockpiles, spoil sites • Water impacts from turbidity, suspension of contaminants, accidental spills, concrete washout, wastewater • Poor camp sanitation causing pollution and public health risks • Inefficient resource use and unlicensed borrow/quarry sourcing	• Include resource efficiency and pollution prevention measures in SS-ESMP and C-ESMP prior to works • Prepare and implement WMP (hazardous/non-hazardous) and pollution control subplans (stormwater, erosion/sediment, spill prevention/response, wastewater, camp sanitation) • Require detailed water pollution controls (turbidity/containment, spoil/silt control, dredging method statements where needed, concrete washout containment, fuel/chemical storage) • Prioritize licensed quarries/borrow pits; prohibit new sites in sensitive/protected areas, productive land, or forest zones • Apply standardized e-waste procedure (as part of ESCOP/ESMP) for ICT/hydromet equipment
ESS4**: Community Health and Safety**	• Child safety risks (entry to sites; drowning risk) and unsafe public access near river works • Traffic/road safety risks; traffic disruption; increased truck movements • Dust/noise/vibration nuisance near homes/schools/clinics/tourism areas • Restricted/unsafe access to rivers and water sources used for livelihoods • Communicable diseases (incl. STDs) due to labor influx; SEA/SH risks	• Include CHS risk assessment and measures in SS-ESMPs (signage, barriers/fencing, access control, safe crossings, site patrols, awareness campaigns) • Prepare/implement TTMP and emergency preparedness/response procedures; coordinate with local authorities and communities on schedules and access restrictions • Apply SEA/SH risk screening; if Moderate or above,

WB's ESS	Key Risks and Impacts	Proposed Mitigation Measures / Instruments
	and social tension • Climate change increasing intensity of extreme rainfall/flooding/erosion/landslides and risks to communities and assets • UXO risks associated with excavation, trenching, dredging, piling, and other ground-disturbing works, posing potential injury or fatality risks to workers and communities	implement SEA/SH action measures in SS-ESMP/C-ESMP and survivor-centered reporting pathways through GRM • Integrate climate and geohazard screening into siting/design/construction sequencing and emergency planning • Screen all subprojects for UXO risk; where UXO risk is known, suspected, or cannot be ruled out, require UXO survey and clearance must be conducted by certified agencies, and UXO clearance certificate issued by NRA prior starting any works. UXO chance-find and safety procedures must be applied even in low UXO risk areas • Report incidents within 48 hours and implement corrective actions per ESCP.
ESS5**: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement**	• Permanent and temporary land acquisition for flood protection/drainage/canal/access works • Physical and/or economic displacement; loss of homes/assets and livelihood disruption (formal and informal) • Risk of exclusion of vulnerable groups without legal tenure (renters/informal users, women-headed HHs, elderly, PWD) • Disputes/delays due to incomplete surveys, delayed compensation, perceived unfair rates • Conflicts from temporary land use (borrow pits/spoil disposal) without agreements • Risks from inadequate consultation and weak grievance resolution	• Apply RPF and conduct screening to confirm impacts and required plans (RP/S-RP, simplified tools where applicable) • Prepare, disclose, and implement RP/S-RP prior to works; ensure works start only after compensation and assistance are completed • Apply eligibility including informal users; provide replacement cost compensation and livelihood restoration/support per ESS5 • Document temporary land use agreements and restoration commitments; apply VLD protocols where used (documentation, opt-out, GRM access) • Implement SEP and accessible GRM to manage land-related grievances transparently and early
ESS6**: Biodiversity Conservation and Sustainable Management of**	• Localized impacts on aquatic biodiversity and riparian habitats (habitat disturbance, migration disruption, vegetation loss) • Water quality changes affecting ecosystems from in-stream/riverbank works • Risks related to sensitive biodiversity areas (e.g., KBA overlap) requiring critical habitat screening	• Conduct ecological screening for all relevant sites and critical habitat screening where sensitive biodiversity values may be present (incl. KBA areas) • Include biodiversity mitigation in SS-ESMP/C-ESMP (timing controls, turbidity/spill controls, habitat protection/restoration)

WB's ESS	Key Risks and Impacts	Proposed Mitigation Measures / Instruments
Living Natural Resources	• Potential invasive species risks from revegetation • Worker fishing/hunting pressure on aquatic resources	• Prepare and implement site-specific BMP where significant risks are identified • Use native species for restoration and control invasive species risks • Enforce worker CoC prohibiting fishing/hunting in protected/conservation areas; monitor and apply sanctions for non-compliance
ESS7**: Indigenous Peoples**	• Exclusion of ethnic groups from consultation due to language/literacy/remoteness • Barriers to access information and benefits; risk of inadequate culturally appropriate engagement • Impacts on customary land use, natural resources, and spiritual/cultural sites • Inadequate FPIC where triggered under ESS7 circumstances • Limited access to grievance channels for non-Lao speakers	• Screen for ESS7 applicability in each subproject AOI and prepare EGEP/EGDP where ethnic groups are present • Use culturally appropriate engagement methods, facilitators in local languages, and tailored IEC materials (visual/oral formats) • Integrate ethnic considerations in SEP and ensure ethnic group–appropriate GRM arrangements • Apply FPIC processes when triggered; document consultations and agreements and disclose plans as required
ESS8**: Cultural Heritage**	• Risks to tangible heritage (structural vibration damage, physical disturbance) and intangible heritage (rituals, festivals, community practices) • Visual impacts on heritage landscapes/streetscapes • Impacts to tourism-based livelihoods and community trust if works are uncoordinated • Chance finds during excavation	• Apply CHIA guideline/template in the ESMF and include heritage screening and impact assessment in site-specific instruments • Prepare and implement CHMP for works in/near heritage-sensitive zones, with early consultation and coordination with UNESCO/heritage authorities and affected communities (e.g., works near a World Heritage zone or historic riverfront) • Ensure heritage-sensitive design and construction methods; align scheduling with cultural calendars and site protocols • Include and implement chance find procedures in SS-ESMPs/C-ESMPs and bidding documents; train contractors and supervise compliance
ESS10**: Stakeholder Engagement**	• Exclusion of flood-prone, low-income, river-dependent communities from MP/FS engagement if consultations are late or not inclusive • Language/access barriers excluding vulnerable groups (women,	• Implement SEP with inclusive, culturally appropriate methods and continuous disclosure (Lao and relevant ethnic languages; oral/visual tools for illiterate groups)

WB's ESS	Key Risks and Impacts	Proposed Mitigation Measures / Instruments
and Information Disclosure	elderly, PWD, ethnic groups, informal settlers, small businesses) • Lack of transparency leading to mistrust, resistance, and grievances • Weak GRM functionality and slow resolution; SEA/SH-sensitive reporting gaps • Insufficient safety communication increasing CHS risks (incl. around construction sites)	• Maintain functional GRM at village/district/provincial/national levels, including confidential SEA/SH-sensitive channels and worker GRM (via LMP) • Engage facilitation support and coordinate with mass organizations to reach vulnerable/ethnic groups • Conduct early and sustained consultation throughout MP/FS/TA and subproject cycles; document feedback and responses • Track, monitor, and report engagement and grievances in bi-annual ESHS reports and monthly contractor reports per ESCP

4.3 CUMULATIVE IMPACT ASSESSMENT (CIA)

Cumulative impacts may arise from the interaction of Project activities with past, ongoing, and reasonably foreseeable developments within the same geographic area, particularly where multiple interventions affect shared environmental and social receptors such as river systems, floodplains, biodiversity habitats, cultural landscapes, and community livelihoods. These impacts may be additive, synergistic, or incremental and may not be fully captured through isolated subproject assessments.

To strengthen the assessment and management of cumulative impacts, the Project will apply a risk-based and proportionate approach to CIA consistent with World Bank ESS1 and good international practice, drawing on the methodology outlined in the International Finance Corporation *Good Practice Handbook on Cumulative Impact Assessment and Management*. Key procedural steps include:

- Scoping: Identify valued environmental and social components (VECs) potentially affected cumulatively (e.g., river morphology, fisheries, wetlands, cultural heritage settings, community access and livelihoods).
- Area of Influence: Define appropriate spatial and temporal boundaries for cumulative effects, considering river basins, urban growth corridors, and heritage zones.
- Stressors and Pathways: Identify Project-related and external stressors (e.g., riverbank works, drainage upgrades, urban development, upstream/downstream interventions) and pathways of cumulative change.
- Assessment: Evaluate the significance of cumulative impacts qualitatively and, where feasible, quantitatively, with attention to thresholds and carrying capacity.
- Management: Identify avoidance, minimization, and coordination measures, including design alternatives, phasing, and inter-agency coordination.
- Monitoring and Adaptive Management: Define indicators and responsibilities to track cumulative effects and adjust measures as needed.

Where master plans, feasibility studies, or strategic technical assistance are financed, Strategic Environmental and Social Assessment (SESA) will be applied to address cumulative impacts at an upstream planning level. For site-specific civil works, cumulative impact assessment (CIA) will be undertaken as part of the subproject-specific ESIA, proportionate to the nature, scale, and risk of the works, and will inform the design, mitigation measures, and monitoring requirements.

4.4 CLIMATE RISK SCREENING, CLIMATE-RESILENT DESIGN AND CLIMATE CHANGE ADAPTATION

The project's interventions directly strengthen climate resilience by addressing increased flood intensity, extreme rainfall, hydrological variability, and the need for rapid early action. In line with World Bank ESS1 (Assessment and Management of Environmental and Social Risks and Impacts) and ESS4 (Community Health and Safety), climate change considerations will be systematically embedded throughout the project cycle—from screening and assessment to design, implementation, and operation. Climate and disaster risk screening and assessment will be conducted for all subprojects, and the findings will be integrated into siting, design criteria, construction sequencing, operational procedures, mitigation measures, and emergency preparedness measures. Structural and nature-based measures reduce physical exposure to climate-induced flooding through improved riverbank stability, expanded drainage capacity, erosion control, and enhanced surface-water management. These interventions help urban areas withstand higher flood peaks and reduce the frequency and severity of inundation.

A. Climate Risk Screening and Climate-Resilient Design:

Climate change poses risks to Project outcomes through increased flood intensity and frequency, altered hydrology, erosion, heat stress, and extreme weather events. To address these risks, a procedural and risk-based approach to climate adaptation will be applied, ensuring that climate resilience is integrated into subproject screening, assessment, and design.

Procedural guidance includes:

- Climate Risk Screening: At the screening stage, climate-related hazards relevant to each subproject—such as flooding, erosion, extreme rainfall, and heat stress—will be identified using available national datasets, hazard maps, and regional climate projections.
- Design Integration: Identified climate risks will be translated into explicit design requirements, including allowances for higher design floods, resilient construction materials, adaptive drainage capacity, incorporation of nature-based solutions, and provision of safe access during extreme events.
- Assessment: For subprojects classified as having moderate to high climate risk, climate risk analysis will be integrated into the ESIA and/or ESMP, including assessment of implications for community safety, infrastructure performance, and long-term functionality.
- Mitigation and Adaptation Measures: Priority will be given to measures that enhance climate resilience while delivering co-benefits, such as vegetated riverbanks, floodplain connectivity, wetland restoration, and strengthened early warning systems.

- Monitoring: Climate-relevant indicators, adaptive management measures, and contingency actions will be included in ESMPs and operational plans to track performance and respond to emerging climate risks.

This approach ensures that climate-related and cumulative risks are identified early, addressed systematically, and embedded into project design and implementation in accordance with the mitigation hierarchy and applicable ESS requirements.

B. Contribution of Project Interventions to Climate Adaptation and Resilience:

The summaries below highlight how the project's interventions collectively contribute to climate adaptation and strengthened resilience:

- Reducing Exposure to Climate-Induced Flooding: Structural and nature-based measures—such as riverbank stabilization, improved conveyance, upgraded drainage, and water-gate systems—are designed using climate- and disaster-risk screening results to reduce inundation frequency, slow runoff and erosion, and protect vulnerable communities and assets from increasingly severe flood peaks.
- Climate-Responsive Urban and River Basin Planning: Feasibility studies, hazard mapping, and resilience planning incorporate climate and disaster risk assessments to identify risk zones, guide adaptation-oriented land-use decisions, and prevent expansion into climate-exposed areas.
- Improved Forecasting and Early Action: Upgraded hydromet stations and monitoring networks support climate-informed risk assessment by enabling earlier detection of extreme rainfall and rapid river rise, improving warning dissemination, strengthening evacuation and emergency decision-making, and supporting long-term climate-informed planning.
- Institutional and Financial Resilience: Sovereign disaster insurance and strengthened financial protection systems enhance climate resilience by ensuring quicker access to funds after climate-related events, reducing fiscal pressure, and enabling faster, more resilient recovery.
- Rapid Climate-Resilient Response: The Contingent Emergency Response Component (CERC) provides immediate resources following climate shocks, allowing emergency response and recovery activities to be implemented in line with climate- and disaster screening outcomes and climate-resilient standards.

4.5 FEASIBILITY STUDIES (FS), MASTER PLAN (MP) AND TECHNICAL ASSISTANCE (TA)

Feasibility studies (FS), master plans (MP), and technical assistance (TA) activities financed under the Project may have downstream environmental and social implications, as their recommendations can influence future investments, siting decisions, and design options. In accordance with World Bank ESS1 and the Project ESCP, all such activities will be subjected to

environmental and social screening, review, and clearance procedures to ensure consistency with ESSs 1–10.

A. Screening and Approval of ToR and Work Plans

- All feasibility studies, master plans, and TA activities will be screened at concept stage using the ESMF screening procedures to identify potential downstream environmental and social risks, sensitivities, and opportunities.
- Based on the screening outcome, the appropriate E&S approach will be determined, which may include the application of SESA, inclusion of specific E&S tasks in the ToR, or preparation of additional E&S instruments as required.
- Terms of Reference (ToR) and work plans for feasibility studies and TA will explicitly incorporate relevant ESS requirements, including analysis of alternatives, cumulative and climate risks, stakeholder engagement, gender and inclusion considerations, biodiversity and cultural heritage sensitivities, and institutional capacity.
- Draft ToRs and work plans will be reviewed by the PMU/CMUs with support from E&S specialists and submitted to the Association for review and clearance, as required under the ESCP, prior to procurement and commencement of the assignment.

B. Review and Finalization of TA Outputs

Draft outputs of feasibility studies, master plans, and TA activities will be reviewed by the implementing agencies and E&S specialists to verify consistency with the World Bank ESF (ESSs 1–10), the ESMF, and applicable national laws.

- The review will assess whether the TA outputs:
    - adequately identify environmental and social risks and constraints;
    - apply the mitigation hierarchy and consider alternatives;
    - avoid recommendations that would lead to significant or irreversible E&S impacts; and
    - incorporate climate resilience, biodiversity protection, cultural heritage safeguards, and inclusive stakeholder considerations.
- Where required, revisions will be requested to ensure that the advice and recommendations provided are ESF-consistent before the outputs are finalized, endorsed, or used to inform downstream investments.
- Cleared TA outputs will be disclosed in accordance with the Project SEP, as appropriate.

C. Linkage to Downstream Investments

The FS, MP, and TA activities under this Project may inform or lead to downstream activities. All downstream activities, whether financed by the World Bank or identification of mitigation

measures in accordance with applicable national laws and regulations of the Lao PDR and good international industry practice.

Where the SEADRM Project receives additional budget allocations or co-financing for downstream activities resulting from these TA outputs, and such activities are financed by the World Bank, subproject-level E&S screening and the preparation of site-specific instruments (e.g., ESIA, ESMP, CHIA, BMP, RP/ARAP) will also be required in accordance with this ESMF and the World Bank Environmental and Social Framework (ESF).

Downstream activities that are not financed by the World Bank or are not directly related to the Project-supported TA are not subject to the World Bank Environmental and Social Policy for Investment Project Financing (ESS1, Footnote 13), but remain subject to applicable national E&S requirements and good international industry practice.

5. PROCEDURES FOR ENVIRONMENTAL & SOCIAL MANAGEMENT

The Environmental and Social Management Procedure for SEADRM II provides a clear, comprehensive step-by-step process for managing environmental and social risks once a subproject is proposed for project financing. It ensures full alignment with the World Bank's ESF and the Lao PDR regulatory framework. The procedure applies to all project components across all project provinces and guides the systematic identification, assessment, mitigation, and monitoring of E&S risks and impacts throughout the subproject cycle.

Once a subproject is introduced, the procedure outlines how E&S risk and impact identification begins with a formal E&S Screening, conducted using standardized checklists consistent with relevant ESS requirements. This screening determines the nature and scale of potential risks—such as land impacts, community health and safety, labor risks, biodiversity concerns, cultural heritage sensitivities, or pollution risks and assigns a corresponding E&S risk category. Screening results then determine the scope, type, and depth of E&S instruments required.

Following screening, the procedure explains how mitigation measures are identified, including through preliminary scoping, field assessments, stakeholder consultations, and reference to good-practice mitigation hierarchies (avoid–minimize–mitigate–offset). Based on the risk profile, the project team develops appropriate E&S management tools, such as site-specific ESMPs, RPs/S-RPs, EGEPs, BMPs, HIA/CHIA, and CHMPs for culturally sensitive areas. Where planning instruments such as Master Plans or Feasibility Studies are supported, a Strategic Social and Environmental Assessment (SESA) is also required to integrate risk mitigation at a strategic level.

A Stakeholder Engagement Plan (SEP) guides inclusive engagement throughout screening, assessment, and implementation to ensure meaningful participation and transparent decision-making.

The procedure is supported by a full suite of tools and templates E&S Screening Checklists, assessment forms, ESMP templates, monitoring tools, and reporting formats provided in the Annexes of the ESMF to facilitate consistent and high-quality preparation of E&S documentation.

5.1 E&S SCREENING

In accordance with World Bank ESS1 (Assessment and Management of Environmental and Social Risks and Impacts) and the Lao PDR Environmental Protection Law (2024) and EIA Decree No. 003/GoL (2022), environmental and social screening shall be carried out as soon as a subproject is proposed. The Environmental and Social Screening aims to:

- Identify potential environmental and social risks and impacts of each proposed subproject or study in line with the World Bank Environmental and Social Framework (ESS1–ESS10) and Lao PDR environmental and social legislation.
- Determine the applicable ESSs and the corresponding E&S instruments (e.g., ESIA, ESMP, ESCOP, SESA, RP/S-RP, EGEP, CHMP, BMP, SEP) required for risk management.
- Include an early-stage assessment to flag key environmental and social constraints and opportunities in order to guide location selection, scope, and design alternatives before detailed design, in accordance with the mitigation hierarchy (avoid–minimize–restore–offset). Where relevant, screening outputs will be presented in a comparative matrix that qualitatively scores E&S sensitivities across potential locations or design alternatives and highlights red-flag risks to inform decision-making.
- Assess the capacity of implementing agencies (DOW, DMH, MOF, PTI, PIUs) and recommend capacity-building measures to be included in the ESCP.
- Ensure early identification and management of key risks including OHS/CHS, UXO, land acquisition, biodiversity, cultural heritage, and ethnic group engagement.
- Promote meaningful stakeholder engagement, public disclosure, and transparency throughout screening and classification.
- Maintain compliance with relevant national laws and regulations—including the Environmental Protection Law (2024), EIA Decree No. 003/GoL (2022), and Heritage Law (2011)—and with UNESCO World Heritage protection requirements where subprojects are located within or adjacent to national heritage or World Heritage sites.

5.2 PREPARATION OF SITE SPECIFIC E&S MANAGEMENT TOOLS

Based on the results of the environmental and social screening (Section 5.1 and Annex 1), appropriate E&S management tools will be developed and implemented for each relevant subproject by the responsible agencies. The type and scope of these tools will correspond to the level and nature of identified risks and impacts. Depending on the screening outcomes, the following instruments may be required. A SESA will apply to sector-wide or programmatic activities where downstream impacts cannot yet be defined. An ESIA, including a SS-ESMP will

be prepared and applied for new construction civil works subproject, including activities under project's Component 1 riverbank protection and flood risk management works located along the Mekong River and major tributaries. An ESCOP is provided in this ESMF and will apply to renovation civil work activities.

- The **Strategic Environmental and Social Assessment (SESA)** is a high-level analytical instrument applied to upstream planning processes, including policies, plans, programs, and other strategic studies, to ensure that environmental and social considerations are integrated early into decision-making in accordance with ESS1. The SESA systematically examines potential risks, cumulative and indirect impacts, climate-resilience needs, biodiversity and cultural heritage sensitivities, land-use implications, and effects on vulnerable groups including ethnic communities while also identifying institutional capacity gaps, governance challenges, and policy inconsistencies that may affect long-term sustainability. Using participatory and consultative methods consistent with World Bank ESS requirements, the SESA evaluates strategic alternatives and recommends measures to avoid, minimize, and mitigate risks, as well as opportunities to enhance environmental and social outcomes. The final SESA must be reviewed and cleared by the World Bank before the associated strategic planning instrument is finalized. Detailed Terms of Reference, guidance and template are provided in **Annex 2**.
- The **Subproject Environmental and Social Impact Assessment (ESIA)** is a detailed, forward-looking analytical study required for SEADRM II subprojects where the nature, scale, and potential environmental and social impacts warrant a comprehensive assessment in accordance with ESS1. An ESIA examines the proposed subproject's environmental and social risks and impacts including direct, indirect, cumulative, and induced impacts—under both the project's area of influence and potential alternatives. It also identifies measures to avoid, minimize, mitigate, or compensate for adverse impacts, and defines monitoring, institutional responsibilities, and budget requirements. For SEADRM II, the ESIA will be prepared by the Feasibility Study and Detailed Design Consulting Firm during the design stage, ensuring that key risks (e.g., land acquisition, community health and safety, labor, biodiversity, cultural heritage, and climate risks) are fully assessed and integrated into the subproject design. All ESIAs must be reviewed and cleared by the World Bank prior to procurement and construction. Guidance and the ESIA template are provided in **Annex 3**.
- The **Subproject Environmental and Social Management Plan (ESMP)** defines specific mitigation and monitoring measures, institutional responsibilities, and budget to ensure that identified risks are managed effectively during design, construction, and operation. The FS and Detailed Design Consulting Firm, in coordination with the PIU and PMU, prepares the ESMP following the screening and preliminary design. Detailed guidance and templates are included in **Annex 3**.

- The **Subproject Contractor Environmental and Social Management Plan (C-ESMP)** is a site-specific operational plan prepared by the contractor based on the approved ESMP to guide day-to-day management of environmental, health, safety, and community protection measures. The contractor shall complete the C-ESMP within 60 days of contract award and obtain approval before mobilization. The plan is reviewed by the **Construction Supervision Consultant (CSC)** and approved by the **PIU/PMU** prior to commencement of any works. The required structure and sub-plans are provided in **Annex 3**.
- The **Subproject Biodiversity Management Plan (BMP)** is required when subprojects may affect sensitive habitats, protected species, or aquatic ecosystems. Its objective is to conserve biodiversity and ecosystem functions following the mitigation hierarchy—avoid, minimize, restore, and offset. The FS and Detailed Design Consulting Firm, supported by a qualified biodiversity specialist, prepares the BMP as part of the ESIA/ESMP process. The plan shall be reviewed and cleared by the **World Bank**. The BMP template and the "Do's and Don'ts" biodiversity protection code are presented in **Annex 4**.
- The **Subproject Cultural Heritage Impact Assessment (CHIA)** and **Cultural Heritage Management Plan (CHMP)** are required for subprojects located within or near tangible or intangible cultural heritage sites. These instruments aim to assess and mitigate potential adverse effects on cultural values and the Outstanding Universal Value (OUV) of World Heritage sites, in line with UNESCO 2021 HIA Guidelines and ESS8. The FS and Detailed Design Consulting Firm, with a qualified heritage specialist, prepares the HIA and CHMP in coordination with the Department of Heritage (DoH). Detailed guidance and Chance Find Procedures are provided in **Annex 5**.
- The **Subproject Resettlement Plan (RP)** or **Simplified RP (S-RP)** is required where land acquisition, access restriction, or livelihood impact occurs. Its objective is to ensure that affected households receive fair compensation, livelihood restoration, and full access to grievance redress mechanisms consistent with ESS5 and the project's RPF. The FS and Detailed Design Consulting Firm's resettlement specialists prepare the RP/S-RP following final design confirmation of impacts. The plan is reviewed and cleared by the **World Bank** and verified by local authorities prior to compensation and site clearance. Guidance and templates are provided in the **Resettlement Policy Framework (RPF)**.
- The **Subproject Ethnic Group Engagement Plan (EGEP)** ensures inclusive participation, equitable benefit-sharing and cultural sensitivity for ethnic groups present in or affected by subprojects. Its objective is to promote social inclusion and respect for traditional livelihoods, applying Free, Prior, and Informed Consent (FPIC) where applicable. The FS and Detailed Design Consulting Firm's social specialists prepare the EGEP once ethnic presence is confirmed during planning. The plan is reviewed and approved by the **World**

Bank and endorsed by local authorities. Detailed guidance and Chance Find Procedures are provided in **Annex 6**.

- The **Environmental and Social Code of Practice (ESCOP)** applies to all small-scale, renovation civil works or installations under the project, including minor renovations, office improvements, small repairs, and the installation of Hydromet/ICT equipment. The ESCOP provides a **standardized set of environmental and social good-practice measures**, aligned with the World Bank ESS1–ESS10 and national regulations, to manage routine risks such as construction nuisances, solid waste and **e-waste management**, **occupational and community health and safety (OHS/CHS)**, biodiversity considerations, and **cultural heritage protection**, including chance-find procedures. Contractors or service providers are responsible for preparing and implementing the ESCOP as part of their work plan, under the supervision of the PIU, while the PMU and CMUs review and approve the ESCOP prior to commencement of works. Detailed measures, templates, and monitoring forms to support ESCOP implementation are provided in **Annex 7**.
- **Labor Management Procedures (LMP) and Codes of Conduct (COC).** The **LMP** establish the requirements for fair, safe, and equitable labor practices for all categories of project workers, including direct workers, contracted workers, and primary supply workers. The LMP sets out provisions on terms of employment, worker rights, nondiscrimination, grievance redress for workers, occupational health and safety (OHS), and management of labor influx. As part of LMP implementation, all contractors and project workers are required to sign and adhere to a **Code of Conduct (COC)** that defines acceptable behavior and expressly prohibits **Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH)**, violence against children, discrimination, and other misconduct. Contractors must train their workforce on COC obligations and ensure supervision, reporting, and enforcement throughout project implementation. The PIU and PMU will monitor compliance to ensure that all labor-related risks are managed in accordance with ESS2 and national labor laws.

The responsible CMUs, with support from the Environmental Research and Disaster Prevention Division (EDPD/PTI), will coordinate preparation and oversight of these tools. Qualified consultant firms may be engaged to support the development of E&S instruments in full compliance with the World Bank's ESSs and relevant Lao PDR regulations.

All required E&S instruments must be prepared, reviewed, and approved before procurement and construction, disclosed in Lao (summary) and English, and incorporated into design, bidding documents, and contracts. Implementation and monitoring will be carried out by the PMU, CMUs, PIUs, and E&S consultants—with technical support from Construction Supervision Consultants (CSCs) and oversight by the World Bank and relevant national authorities—in accordance with the Environmental and Social Commitment Plan (ESCP).

5.3 COMPLIANCE WITH NATIONAL REQUIREMENTS

In accordance with the Ministerial Instruction (2023) and considering the scope, scale, and locations of the subprojects proposed under Component 1 of the SEADRM II Project, the

preparation of an Environmental Impact Assessment (EIA) accompanied by an Environmental Management and Monitoring Plan (EMMP) is a mandatory national requirement.

In addition, in line with the Law on National Heritage No. 11/NA (2021) and applicable UNESCO World Heritage requirements, a Cultural Heritage Impact Assessment (CHIA) and a corresponding Cultural Heritage Management Plan (CHMP) are required for subprojects that may affect tangible or intangible cultural heritage.

The EIA identifies and assesses potential environmental and social risks and impacts, evaluates project alternatives, and defines legally enforceable mitigation, monitoring, and institutional measures through the EMMP. The EIA with EMMP and the CHIA with CHMP will be prepared by consulting firm as part of the feasibility and detailed design stages. The EIA and EMMP shall be submitted to the Ministry of Agriculture and Environment (MAE) for review and approval. The preparation, consultation, disclosure, and approval processes shall comply with Decree No. 389/GoL (2022). An Environmental Compliance Certificate (ECC) must be issued by the relevant approving authority prior to the commencement of any civil works.

The CHIA assesses potential impacts on cultural heritage assets and values and establishes avoidance, mitigation, and management measures through the CHMP. Based on Government of Lao PDR regulations, all civil works subprojects under Component 1 are expected to require the preparation and approval of an EIA and EMMP and, where applicable, a CHIA and CHMP. The CHIA and CHMP shall be submitted to the Department of Heritage (DOH) under the Ministry of Culture and Tourism (MCT) and to UNESCO for review and endorsement in accordance with national regulations and World Heritage requirements prior to the commencement of any civil works.

6. ESMF IMPLEMENTATION ARRANGEMENTS

The Environmental and Social Management Framework (ESMF) for the SEADRM II Project will be implemented through a coordinated institutional structure involving national, sectoral, and provincial agencies (figure 6-1). The Ministry of Finance (MOF) serves as the Project Management Unit (PMU) and leads overall project coordination, while Components 1, 2, and 3 are managed respectively by the Ministry of Public Works and Transport (MPWT), Ministry of Agriculture and Environment (MAE), and MOF. Dedicated Component Management Units (CMUs) and Project Implementation Units (PIUs) have been established to oversee technical execution, procurement, and ESF compliance. Environmental and Social Focal Points (ESFCs) are embedded across all key institutions and supported by technical assistance teams, ensuring the ESMF is consistently applied throughout the project lifecycle. Detailed roles and responsibilities for ESMF implementation are outlined below.

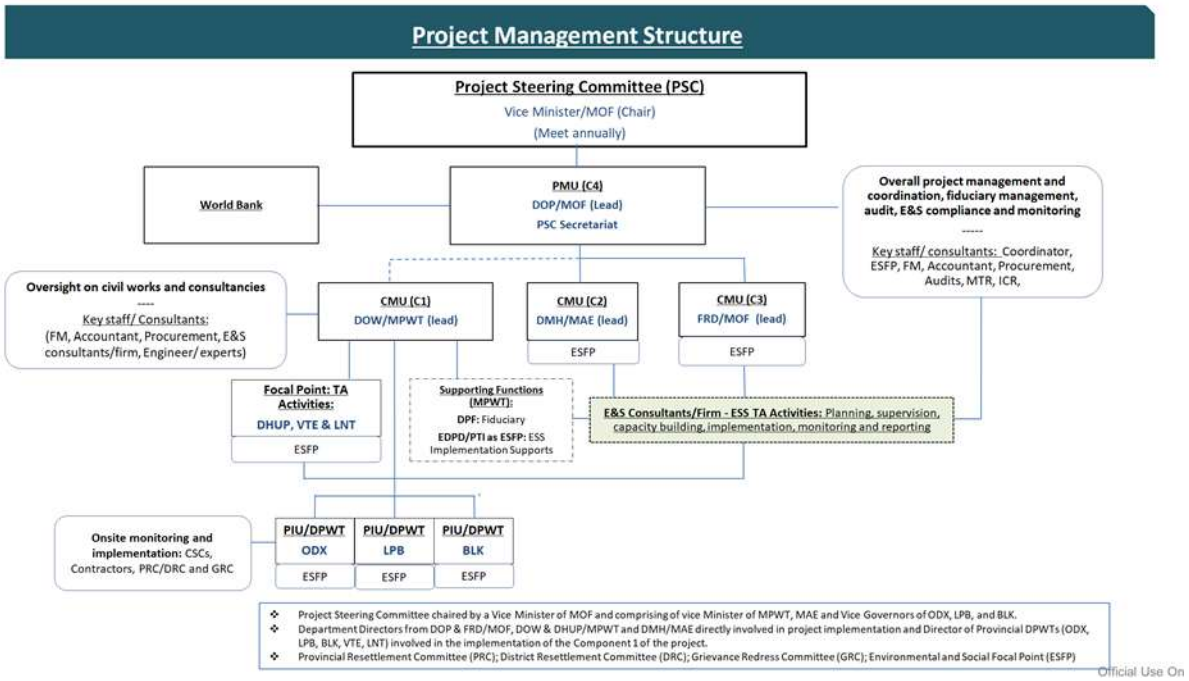

Figure 6-1 ESMF Implementation Arrangement

6.1 MINISTRY OF FINANCE (MOF) – PMU

The Ministry of Finance (MOF) serves as the Project Management Unit (PMU) for the SEADRM II Project and is responsible for overall coordination, environmental and social (E&S) oversight, and reporting for Components 2, 3, 4, and 5, as well as project-wide coordination. A central Environmental and Social Safeguards Focal Point (ESSFP) will be appointed within the Department of Planning (DOP), MOF (formerly under the Ministry of Planning and Investment), to lead E&S coordination, management, and compliance across the components under PMU responsibility.

The PMU will receive technical assistance from a Senior Environmental and Social Consultant (SESC) or consulting firm recruited under Component Management Unit 1 (CMU1). In addition to its PMU role, MOF also serves as the Component Management Unit for Component 3: Financial Planning for Disaster Resilience**,** with an Environmental and Social Focal Point (ESFP) designated within the Financial Regulatory Department (FRD) to manage E&S risks specific to this component. Under Component 3.1, the PMU will adapt and apply the Lao Contingency Plan (LCP)**,** reflecting lessons learned from E&S implementation under RETF (P505224), to ensure that (i) E&S management measures are proportionate to the nature and location of activities financed through insurance payouts, (ii) E&S measures are practical and appropriate for emergency response conditions, and (iii) implementation reflects the Government's institutional capacity for E&S risk management. Following closure of the RETF in 2027, the LCP will continue to apply for the activity funded under insurance payout (C3.1) to ensure continuity and ESF compliance for post-disaster recovery activities.

Core ESMF responsibilities of PMU, with TA from SESC, include:

- Serve as the central Focal Point for Environmental and Social (E&S) compliance across all SEADRM II components.
- Ensure overall implementation of the Environmental and Social Management Framework (ESMF), including integration of the RPF, SEP, ESCP, other instruments and national regulations.
- Supervise the implementation of E&S standards (ESS1–ESS10) in coordination with Component Management Units (CMUs) and Project Implementation Units (PIUs).
- Coordinate with the World Bank Task Team on E&S reporting, document review, and policy compliance.
- Consolidate or compile and submit **bi-annual E&S monitoring reports** to the World Bank.
- Arrange and coordinate the **mid-term review and post-project evaluation** missions.
- Ensure effective functioning of the Grievance Redress Mechanism (GRM) across all components.
- Notify the PMU and World Bank within 48 hours of any incidents or accidents, including those related to Sexual Exploitation and Abuse or Sexual Harassment (SEA/SH.
- Coordinate and participate capacity-building and awareness-raising on E&S risk management for CMUs, PIUs, and contractors.
- Oversee recruitment and coordination of national E&S consultants and safeguard teams.
- Maintain a central E&S documentation and reporting system.
- Ensure consistency of E&S communications across implementing ministries and stakeholders.

6.2 MINISTRY OF PUBLIC WORKS AND TRANSPORT (MPWT) – CMU1

The Department of Waterways (DOW) within the **Ministry of Public Works and Transport (MPWT)** serves as the **Component Management Unit for Component 1 (CMU1)** of the SEADRM II Project, responsible for overall coordination, planning, and implementation of subprojects across project provinces (e.g., ODX, LPB LNT, BKX and VTE). The **Environment and Disaster Prevention Division (EDPD)**, under the **Public Works and Transport Institute (PTI)**, will be designated as the **ESFP,** and with TA from E&S consultants or a consulting firm, to oversee environmental and social (E&S) risk management and compliance under Component 1, providing technical support, quality control, and coordination with PIUs and contractors throughout all project provinces. Core ESMF responsibilities include:

- Assign and support the ESFP for overall coordination and implementation of E&S standards under C1.
- Prepare and submit bi-annual E&S monitoring reports to the PMU.
- Contribute to and participate in mid-term reviews and post-evaluation processes.
- Lead E&S risk management for Component 1 (Urban Flood Risk Management), in accordance with the ESMF, RPF, SEP, and ESCP.
- Ensure screening, assessment, and mitigation of E&S risks across all subprojects.
- Coordinate preparation, review, and quality control of site-specific instruments (e.g., SS-ESMPs, RP.S-RP, CHIAs, CHMPs, BMPs).
- Coordinate with the PIUs, Provincial, District, and Village Resettlement Committees (PRC, DRC, VRC) to RP or S-RP, ensuring full compliance with ESS5.
- Ensure that compensation and livelihood restoration activities are fully completed prior to commencement of civil works.
- Monitor implementation of E&S mitigation measures by PIUs, contractors, and Construction Supervision Consultants (CSCs).
- Oversee CSCs and civil works contractors across all project provinces to ensure compliance with the C-ESMPs, Contractor's LMP, and Code of Conduct.
- Ensure meaningful stakeholder engagement in each province in line with the SEP, including with local communities, authorities, and cultural institutions.
- Maintain records of public consultations, disclosures, and grievance resolution for all C1 activities.
- Notify the PMU and World Bank within 48 hours of any incidents or accidents, including those related to SEA/SH.
- Coordinate with the PMU and PIUs to ensure integration of C1 reporting into consolidated project reporting.
- Lead the capacity-building and awareness-raising on ESF instruments developed for SEADRM II and site specific E&S documents for PMU, CMUs, PIUs, CSC and contractors.
- Ensure ESF compliance is embedded into procurement, contract management, and supervision processes across the subprojects.

The EDPD/PTI will house a dedicated E&S risk management consultant team or firm, comprising:

- One intermittent Senior E&S Consultant (SESC). He/she will be based at EDPD/PTI and will support both the CMU1 and PMU in overseeing environmental and social (E&S) risk management and compliance under all project components.

- One full-time E&S Consultant (ESC) and two Junior E&S Specialist (JESS); and
- A dedicated consulting firm or team will be recruited to prepare site-specific E&S instruments (SS-ESIAs, SS-ESMPs, RPs, CHIA/CHMP, BMP, and SESA) for subprojects in the project provinces.

6.3 MINISTRY OF AGRICULTURE AND ENVIRONMENT (MAE) – CMU 2

- **The Department of Meteorology and Hydrology (DMH)** within the Ministry of Agriculture and Environment (MAE), serves as the CMU for Component 2 (CMU2), will be responsible for managing environmental and social (E&S) risks specific to Component 2 implementation. An ESFP will be assigned within DMH to lead day-to-day E&S risk management, supported by MAE's technical teams. In addition, the E&S consultant or firm to be recruited under Component 1 (CMU1) will work in close coordination with the ESFP to support supervision, capacity building, monitoring, and reporting of ESMF implementation under Component 2. DMH will oversee the procurement and contract management of equipment and systems, coordinate the installation and dissemination of early warning services, and ensure quality management, stakeholder engagement, and capacity building in line with the ESMF and relevant WB's ESS. Core ESMF responsibilities include:Assign and support the ESFP for overall coordination and implementation of E&S standards under C2.
- Prepare and submit bi-annual E&S monitoring reports to the PMU.
- Contribute to and participate in mid-term reviews and post-evaluation processes.
- Lead E&S risk management for Component 2 (Hydro-Meteorological Services and Early Warning), in accordance with the ESMF, SEP, and ESCP.
- Ensure E&S screening, risk classification, and implementation of appropriate mitigation measures for all activities under C2, including procurement and installation of equipment, data platforms, and warning systems.
- Monitor environmental and social performance of service delivery improvements, including their accessibility, physical installation, and community interface.
- Oversee integration of E&S measures into technical specifications, contracts, and implementation protocols for weather stations, data dissemination systems, and related infrastructure.
- Ensure stakeholder engagement and information disclosure for early warning systems and public interface tools in line with the SEP.
- Maintain records of consultations, disclosures, and grievances related to Component 2 activities.
- Coordinate with PMU and other CMUs to integrate E&S reporting into the consolidated project reporting system.

- Notify the PMU and World Bank within 48 hours of any incidents or accidents, including those related to SEA/SH.
- Participate in E&S capacity-building activities, technical supervision, and safeguards-related missions.
- Liaise with local authorities and communities to ensure awareness, participation, and sustainability of early warning and climate risk management systems.
- Ensure safeguards compliance and inclusion of vulnerable groups and ethnic communities in the design and dissemination of hydro-meteorological information and warning services.

6.4 PROJECT IMPLEMENTATION UNITS (PIUs)

Project Implementation Units (PIUs) have been established within the Provincial Departments of Public Works and Transport (DPWTs) in the project provinces. Each PIU is responsible for day-to-day implementation and field-level supervision of subprojects, including oversight of environmental and social safeguards in line with the project's ESMF and associated instruments. With technical assistance from the Construction Supervision Consultant (CSC), PIUs will coordinate environmental and social risk screening, manage mitigation measures, monitor contractor compliance, and report on ESF performance. PIUs also lead stakeholder engagement and operate the local grievance redress mechanism (GRM), ensuring timely resolution of concerns and compliance with the World Bank's Environmental and Social Standards, particularly in culturally and environmentally sensitive areas. Core ESMF responsibilities of the respective PIUs include:

- Serve as the subproject-level implementing unit under Component 1 within the respective DPWT.
- Assign a dedicated Environmental and Social Standards Focal Point (ESFP) to oversee daily E&S risk management activities.
- With technical assistance (TA) from the Construction Supervision Consultant (CSC), be responsible for day-to-day supervision, monitoring, and reporting of E&S safeguards during project implementation.
- Review and oversee implementation of the Contractor's Environmental and Social Management Plan (C-ESMP), ensuring compliance with approved safeguards instruments and relevant site-specific measures.
- Conduct E&S screening of subproject activities and assist in preparing site-specific E&S instruments (e.g., SS-ESMPs, ARAPs, EGEPs), following guidance from CMU1 and PTI.
- Coordinate with the Provincial, District, and Village Resettlement Committees (PRC, DRC, VRC) to implement Resettlement Plans (RP) or Simplified Resettlement Action Plans (S RP), ensuring full compliance with ESS5.

- Ensure that compensation and livelihood restoration activities are fully completed prior to commencement of civil works.
- Ensure integration of E&S mitigation measures into civil works contracts and contractor obligations, including LMPs and Codes of Conduct.
- Supervise contractor performance and coordinate with CSC to implement corrective actions in response to non-compliance.
- Maintain documentation on stakeholder engagement, public disclosure, and grievance resolution in line with the project's SEP and GRM.
- Operate a functional local grievance redress mechanism (GRM) and escalate unresolved or serious grievances to CMU1 or the PMU.
- Submit monthly, quarterly, and annual E&S monitoring reports to CMU1.
- Notify the CMU1 within 48 hours of any incidents or accidents, including those related to SEA/SH.
- Facilitate E&S training and awareness activities for contractors, local authorities, and affected communities.
- Support coordination with District Offices of Public Works and Transport (OPWTs), local governments, and relevant heritage or environmental agencies.
- Participate in E&S supervision missions; safeguard audits, and mid-term or final project evaluations as required.

6.5 CONSTRUCTION SUPERVISION CONSULTANT

Under Component 1 of the SEADRM II Project, Construction Supervision Consultants (CSCs) is central to the effective implementation and monitoring of environmental and social standards across the C1 five participating provinces: ODX, LPB, LNT, BKX and VTE. CSCs provide daily oversight and technical support to CMU1 and PIUs, and are responsible for verifying that Contractors implement agreed safeguard measures in accordance with the site-specific instruments. Given the scale and geographic spread of subprojects, CSC teams must be adequately staffed with qualified environmental and social specialists to ensure effective supervision and compliance with the Project's requirements. Core ESMF responsibilities of respective PIUs include:

- Provide day-to-day oversight and technical assistance to PIUs and Contractors on ESF implementation.
- Supervise, review, capacity building, compliance monitoring and reporting of the Contractor's ESMP (C-ESMP), Labor Management Procedures (LMP), and Code of Conduct (CoC).

- Support PIUs in monitoring and verifying the implementation of Resettlement Plans (RP) or Simplified Resettlement Action Plans (SIMPLIFIED RP), and submit progress updates in accordance with ESS5.
- Submit monthly E&S progress reports and quarterly environmental and social safeguard monitoring reports to the PIU and CMU1.
- Conduct routine site inspections and E&S audits to ensure contractor compliance and recommend timely corrective actions.
- Notify the PIUs and CMU1 immediately of any incidents or accidents, including those related to SEA/SH.
- Support stakeholder engagement activities and document consultations and grievance redress activities related to construction works.
- Provide capacity building and on-site training to Contractors, PIU staff, and affected communities on safeguards compliance, occupational health and safety (OHS), and grievance redress.
- Participate in mid-term reviews, ESF supervision missions, and evaluation processes as needed.

6.6 CONTRACTORS

- Prepare and implement a site-specific Contractor's Environmental and Social Management Plan (C-ESMP) based on the approved ESMP and ESMF.
- Assign a trained adequate Safety, Social and Environmental Officers (SSEO) to lead day-to-day C-ESMP implementation and reporting.
- Execute environmental and social mitigation measures for air, noise, water, waste, labor, occupational health and safety (OHS), community health and safety (CHS), SEA/SH, and community relations.
- Provide appropriate personal protective equipment (PPE) to all workers and ensure its proper use.
- Conduct daily OHS and CHS inductions for all site personnel and subcontractors.
- Maintain ongoing consultation, communication and information disclosure with affected communities, including updates on construction activities, safety protocols, and grievance channels.
- Ensure all workers are trained on the Code of Conduct, OHS, SEA/SH prevention, emergency response, and respectful community interaction.
- Maintain full records of all grievances received and resolved (from both workers and communities), and report any serious incidents to PIUs and CSCs.

- Submit monthly E&S implementation reports to the CSC and PIU, including incident logs, non-compliance cases, and training records.
- Notify the PIUs and CSC immediately of any incidents or accidents, including those related to SEA/SH.
- Provide sufficient staffing, resources, and financial means to fully implement all safeguard commitments in the C-ESMP.
- Cooperate with PIUs, CSCs, and independent monitoring teams during inspections, reviews, and audits.

6.7 CAPACITY ASSESSMENT AND CAPACITY BUILDING

At the national level, the MOF, MPWT, and MAE have gained experience in implementing World Bank-financed projects and applying the World Bank's environmental and social (E&S) safeguard policies, particularly through their involvement in the SEADRM I Project. However, under SEADRM II, the World Bank's ESF and its relevant ESSs will be applied. This represents a shift in approach and introduces additional requirements, particularly related to labor management, stakeholder engagement, and cultural heritage.

While these national agencies have institutional familiarity with the Bank's processes, their experience with ESF-specific instruments and requirements is limited, except that EDPD/PTI has extensive experience with both safeguard policies and the ESF. Participating provincial agencies especially the DPWTs continue to face capacity and staffing constraints in implementing E&S risk management systems. In particular, capacity gaps exist in areas such as environmental and social screening, monitoring and supervision, grievance redress, and land acquisition planning.

To address these challenges, a dedicated ESFP team will be recruited under CMU1 (DOW/PTI) to provide hands-on technical assistance and lead structured capacity building activities across all implementing agencies, including MOF, MPWT, MAE, and the provincial PIUs. The ESFP team will support institutional strengthening through formal training programs and on-the-job mentoring, focusing on the operationalization of the ESMF, RPF, SEP, and other ESF instruments. Training will also be extended to CSCs and contractors to ensure full compliance at the field level.

Although EDPD/PTI (under MPWT) remains the most experienced agency with ESF implementation and continues to lead the coordination of safeguards under Component 1, broader capacity development will be essential to ensure consistency, quality, and accountability throughout the SEADRM II project lifecycle.

A Capacity Needs Assessment was conducted as part of ESMF preparation and the capacity building plan are summarized in Table 6-1 below.

Table 6-1 Capacity Building Plan / Measures for SEADRM II

Target Group	Capacity Building Topic / Measures	Trainer / Lead Entity	Timeline
PMU (MOF/DOP), CMU1 (DOW/PTI), and PIUs	For C1 implementation (relevant PMUs and PIUs): • Overall ESF requirement, project's impact, relevant ESSs and E&S instruments prepared for the project (ESCP, SEP, ESMF, LMP, and RPF) • Specific training for E&S Consultant, and ESS Focal Points) on preparation and implementation of E&S management plans (SS-ESMP, C-ESMP, RAP, BMP, EGEP and SESA.) • Monitoring and reporting (relevant PMUs/PIUs, CSC and contractors) • OHS and Incident report (ESIRT process). • Specific training for Construction Supervision Consultants (CSC), Contractors, Subcontractors and Workers on implementation and reporting of C-ESMPs, CHMP, BMP, EGEP, SEP, GRM, OHS protocols, SEA/SH prevention, and Code of Conduct, and BMP (if any). • Specific training for Communities and Local Authorities on road safety, community health and safety (CHS), SEP including GRM operation, and Ethnic Group Engagement Plan (EGEP) - culturally appropriate engagement with ethnic. • Awareness on flood risk, early warning, GRM access and use, and engagement and consultation with vulnerable groups (including ethnic groups).	PTI/EDPD, SESRMC, Consultants	Year 1 launch, then annual refreshers or before each activity
CMU2 (DMH) and PMU	**For C2 implementation:** • Overall ESF requirement, project's impact, relevant ESSs and E&S instruments prepared for the project (ESCP, SEP, ESMF, LMP, and RPF) • Specific training on Use of the Negative List, Labor Management, Occupational Health and Safety (OHS), and E-Waste Management. • Specific training on early warning dissemination and communication to communities especially women and vulnerable groups. **For C3 implementation (PMU):** • Specific training on implementation and reporting of the LCP and ESCP prepared under the RETF will apply to Sub-component 3.1 (disaster risk insurance payouts), while capacity-building and training for Sub-component 3.2 will be implemented under the SEADRM II Project to support financial resilience activities.). **For C4 implementation (PMU):**	SERMC, ESC and JESS Team	Before implementation and periodically throughout

Target Group	Capacity Building Topic / Measures	Trainer / Lead Entity	Timeline
	• Overall ESF requirement, project's impact, relevant ESSs and E&S instruments prepared for the project (ESCP, SEP, ESMF, LMP, and RPF) • Project Operations Manual (POM): **For C5 implementation (relevant PMUs and Implementing agencies):** • Contingent Emergency Response Component (CERC) Manual		
PRC, DRC, VRC (Resettlement Committees)	• Roles and responsibilities in RP/S-RP implementation • Verification of eligibility and compensation • Monitoring and documentation of RP delivery • Grievance management specific to land acquisition • Coordination with PIUs and community engagement	PIUs, PTI, Social Consultants	Before RP implementation and throughout monitoring
Contractors and CSCs	• C-ESMP preparation and enforcement • OHS and CHS management • Worker Code of Conduct and SEA/SH training • Site safety and waste management • Daily inductions and grievance handling • Community relations and disclosure	CSCs, PTI, PIUs	At mobilization, then quarterly
Local Authorities & Communities	• Flood preparedness and early warning response • GRM awareness and rights under ESS5 • Cultural heritage awareness in LPB • Community interaction protocols • Ethnic group engagement in local languages	PIUs, Social/Environmental Consultants	Prior to works and annually
Specialized Partners (UNESCO, MRC)	• Joint training on CHMP/CHIA compliance • Coordination on OP 7.50 and MRC processes • Basin-wide flood, sediment, and ecosystem protocols	PTI, DOH, UNESCO, MRC focal	Before design stage and as needed per activities

7. STAKEHOLDER ENGAGEMENT & INFORMATION DISCLOSURE

7.1 STAKEHOLDER ENGAGEMENT

7.1.1 Requirements of Stakeholder Consultation

Under a WB financed project, it is important that open and transparent engagement process be established and maintained between the Borrower and project stakeholders. When effective stakeholder engagement can be ensured, this process helps improve the environmental and social sustainability of project, enhance public support for project implementation and contribute to successful project design and implementation.

7.1.2 Summary of Stakeholder Consultations to Date

During project preparation, stakeholder consultations were conducted between May 19–28, 2025, with concerned local authorities in the five project provinces to present an overview of

the SEADRM II Project, obtain opinions, and collect baseline information for the preparation of the ESF instruments (ESMF, ESCP, RPF, LMP, and SEP) and ODX Subproject plans (ESIA, ESMP, RP and EGEP). These discussions focused on key environmental, social, and cultural concerns, including ensuring compliance with ESIA, ESMP, and ECC requirements; improving drainage and construction management; identifying site-specific environmental and social risks; addressing compensation delays and updating rates; strengthening coordination among water and environmental authorities; and enhancing community engagement and public awareness on disaster risk reduction. A follow-up national stakeholder consultation held on October 31, 2025, brought together national and provincial stakeholders to present and discuss the draft ESF instruments and gather feedback for their finalization. Overall, the inputs from these consultations were systematically incorporated into the ESF instruments to ensure that project design and implementation align with national legislation, World Bank ESS requirements, and stakeholder priorities for environmental sustainability, social inclusion, and cultural heritage protection. More details are provided in Stakeholder Engagement Plan (SEP).

7.2 INFORMATION DISCLOSURE

Information disclosure refers to making information accessible, and in a manner that is appropriate and understandable to interested and affected parties. Information Disclosure will be an ongoing process under SEADRM II. During project cycle, project information will be disclosed in a way that is accesible to a wide range of stakeholders (in both English and Lao). For ethnic groups and communities, information disclosure will also be in a language and manner accessible to them, as necessary.

The following guiding principles will be used:

- Project information, including project/subproject purpose, activities, environmental and social risks and potential impacts, proposed mitigation measures, complaint handling procedures, etc., will be disclosed at the earlier stage of project/ subproject preparation;
- Information will be disclosed to the target group well ahead of consultations to promote understanding about the project and allow meaningful feedback of stakeholders;
- Project information will be disclosed in Lao language of the target audience;
- In case the target ethnic groups do not have written language, national language (Lao) will be used in Project Information Booklet to be distributed to them. However, consultation will be conducted in their mother language using verbal translation to promote communication and feedback of the ethnic groups during consultation;
- Project information will be disclosed in the written form, and in various formats for convenient use of various project stakeholders, including Project Information Booklet, Executive Summary, and full documents;

Project information will be disclosed through different channels for convenient access of various project stakeholders, and through the website of MPWT.

Prior to World Bank appraisal, a set of core ESF instruments—including ESMF, RPF, SEP, LMP, and ESCP were disclosed in full in English and in executive summary form in Lao on the MPWT website on 24 December 2025, accessible at: https://mpwt.gov.la/en/singleProjectDetail/256

Site-specific instruments, including ESIA, ESMP, RP, and EGEP, will be disclosed prior to implementation through the MPWT website and locally at affected villages. For ethnic groups, information sessions will be conducted to explain key contents verbally in the local language.

PMU and the relevant CMUs and with support from consultants and PTI, are responsible for disclosure, consultation, documentation of feedback, and re-disclosure of updated instruments. Further details on stakeholder engagement, consultation methods, documentation, and disclosure arrangements are provided in the SEP (Section 4.2).

8. GRIEVANCE REDRESS MECHANISM

8.1 WB'S ESF REQUIREMENTS ON GRM

The World Bank's ESS 10 requires that the Borrower will respond to concerns and grievances of project-affected parties related to the environmental and social performance of the project in a timely manner.

In connection with this purpose, the Borrower are required to to establish effective grievance mechanisms that help to facilitate resolution of such grievances and concerns. The grievance mechanism should be proportionate to the risks and potential impacts of the project and will be accessible and inclusive. Where feasible and suitable for the project, the grievance mechanism will utilize existing formal and/or informal grievance mechanisms, supplemented as needed with project-specific arrangements. In particular, the project established GRM is expected to be:

- Address the concerns promptly and effectively, in a transparent manner that is culturally appropriate and readily accessible to all project-affected parties, at no cost and without retribution. The GRM process or procedure will not prevent access to judicial or administrative remedies. The Borrower will inform the project-affected parties about the grievance process during community engagement activities, and will make publicly available a record documenting the responses to all grievances received;
- Handle grievances in a manner that is culturally appropriate to the affected people and be discreet, objective, sensitive and responsive to the needs and concerns of the project-affected people. The GRM will allow for anonymous complaints to be raised and addressed.

8.2 NATIONAL REQUIREMENTS ON GRM

The Government of Laos PDR has various laws and sub-decrees that have been in place to guide the implementation of complaint resolution process. These documents specify the right of the complainants as well as the responsibilities of concerned governmental agencies as to complaint resolution. Relevant legal documents include:

- Law on Handling of Petitions (No. 07/NA, 2005, amended No. 05/NA, 2016)
- Law on Grievance Redress (No. 012/NA, 2014)
- Environmental Protection Law (No. 29/NA, 2013, Amended as No. 53/NA, 2024)
- Labor Law (2018)
- Law on Preventing and Combating Violence against Women and Children (Law No. 56/NA of 2014)
- Lao Front for National Development (2012)
- Decree on Ethnic Groups Affairs (No. 207/GOL, 2020)

8.3 PROJECT'S STEPS IN GRIEVANCE RESOLUTION PROCESS

8.3.1 Principles of the Project GRMs

The principles are adopted to design GMR for the project:

- **Channels.** Different channels are established to enable affected person to submit their grievances, including submission to village committee, as well as district and provincial levels. Grievance can also be submitted to:
    - **PMU's email** (response within 5 business days);
    - **PIU offices** at provincial level;
    - **Village Mediation Committee** (independent from any other committees established for project purpose). Within 5 business days following the receipt of the grievance, the VMC will inform the complainant if her/his grievance could be addressed at the village level or will be escalated to the next level. Complaints are typically resolved within 10 business days at VMC level.

- **Forms.** Grievances can be submitted in writing and verbally, and either directly by the affected households, or by a person delegated by the complainant (e.g. the elderly, people with disabilities). Anonymous complaints are accepted and confidentiality is kept.

- **Complainant can delegate a representative who acts on their behalf.** Person lodging a grievance can ask assistance from their family or from individual that they trust to transcribe their complaint, and act as their representative to submit their complaint.

- **Disclosure.** Disclosure. GRM procedures are disclosed in the public domain (e.g., PMU website and public notice boards at village halls) and will also be displayed in visible and accessible locations at project work sites, schools, and local markets (e.g., notice boards). . GRM procedure will be explained to people attending consultation meetings.

- **Documentation.** A grievance logbook will be maintained at village hall (subproject level) and at PMU level (through PMU GRM focal point). A grievance logbook will be established and regularly updated/maintained at village hall and PMU level.
- **Transparency.** The grievance procedures include steps, expected time frame grievance resolution for each step, notification to affected person, how decision is made, decision makers, and mediation options.
- **Time-limit for grievance resolution is specified for each step.** Complaint will be acknowledged within 5 days from the date of complaint receipt.
- **Acknowledgement of complaint receipt.** The unit in charge of complaint resolution will notify complainant upon complaint receipt and will initiate the complaint resolution process.
- **Appeal.** If the agency in charge does not resolve a grievance in a manner that is satisfactory to the affected person, a multistakeholder committee will be established (ad-hoc) to resolve the dismissed grievance – as an alternative for affected person going to court. If the grievance could not be resolved satisfactorily by the multistakeholder committee, the affected person may resort to the Provincial Assembly for consideration and decision prior to submitting to the court of law (Law on Grievance Redress No. 106/NA, 2022).
- **Monitoring.** All grievances received are recorded by PMU and relevant Village Mediation Committees, and are processed/resolved in a given timeframe, and are monitored by PMU GRM focal point.
- **Complainants bear no costs associated with the entire complaint resolution process**. Costs incurred as a result of grievance resolution will be borne by the project. However, if the complaints bring their case to the court of law as they wish, they will bear the costs associated with their lawsuit.

8.3.2 Project's Redress Procedures

Based on the above GRM principles, the project will establish four complaint handling procedures for four types of potential grievances: grievances related to 1) general complaints, 2) labor and working conditions, and 3) sexual exploitation and abuse and sexual harassment (SEA/SH), and 3) GRM for land acquisition (Please see GRM in RPF at Anenx 8. It is noted that the GRM for complaints related to labor and working condition will follow the procedure described in the project's Labor Management Procedures whereas the GRM related to SEA/SH established under this project will be in accordance with the pertinent national laws and the World Bank's guidance on SEA/SH and is described in project's LMP (see LMP for details). These three GRM procedures are summarized below.

8.3.3.1 Redress Procedure for General Complaints

In case individuals, households, or communities are affected by any other aspects, for instance, environmental impacts (e.g. dust, noise, or lack of safety measures that increase risks of traffic accident to road users or to local ethnic group), their complaints could be submitted through various channels that will be established for their convenient use, including people from Ethnic Groups (EG). These include:

For general project benefits:

- PMU GRM focal point's telephone (as helpline call center or phone number);
- Local EG leaders (in case affected individual/households are EG)
- Village Authorities/Village Mediation Committee

For environmental and other relevant social issues at construction sites:

- Dedicated helpline call center with contact detail of GRM responsible persons assigned by the Contractors, PIU and Construction Supervision Consultant (CSC) teams with their contact detail including helpline call numbers (phone/WhatsApp) are disclosed for affected people to report cases that they think Contractor can resolve timely (contact detail of Contractor will be posted at construction sites, distributed to project's stakeholder through Subproject Information Booklet during consultation, and posted at public billboard of village offices, etc.).

8.3.3.2 Redress Procedure for Complaints related to labor and working conditions

Project workers can lodge their grievance/complaint as follows:

Step 1 **Employer Level.** Affected person (AP) can submit their grievance to their Employer who serves as the first focal point for receiving and resolving grievance. Grievance can be lodged verbally or in writing, in person or by phone, text message, mail or email (anonymous complaint is accepted). The Employer involved will resolve the case no later than 15 days. Once resolved and the AP is satisfactory, the Employer will report the case, including resolution process and results, to the Project Implementation Unit (PIU) for information and record. If the AP is not satisfied with the resolution of their Employer, the Employer will refer the AP to the GRM focal point of PIU, and PMU if needed, and inform the AP of this referral. It is noted that if a complaint is concerned of the safety and health of one or several individuals, such complaint shall be resolved as soon as possible – depending on the nature and urgency of the grievance.

Step 2 **PIU level.** PIU will resolve the complaint referred by the Employer and acknowledge the receipt of the AP's complaints within two weeks from the date of complaint receipt. If the GRM of PIU cannot resolve the complaint, the GRM focal point of PMU will consult with the Project Manager for resolution. The GRM focal point of PIU will inform the AP of the PIU's resolution result in writing within 15 days from the date of complaint receipt. If the AP is not satisfied with the resolution outcome proposed

by PIU, PIU will refer the case to the PMU for resolving and inform the AP of this referral in writing.

Step 3 **Court of Law.** If the AP is not satisfied with the resolution proposed above, a multistakeholder committee will be established (ad-hoc) to resolve the dismissed grievance – as an alternative for affected person going to court. If the grievance could not be resolved satisfactorily by the multistakeholder committee, the affected person may resort to the court of law. The cost associated to the lawsuit shall be borne by the AP. The decision of the Court will be final.

8.3.3.2 Redress Procedure for Complaints related to SEA/SH

Under this Project, GRM for SH/SEA mainly serves in: (i) referring the complainants to local Gender-Based Violence service provider (Lao Women's Union); and (ii) recording resolution of the complaint. The following principles, which will be applied under the Project, recognize victim as principal decision makers in their own care, and treat them with agency, dignity and respect for their needs and wishes.

- Multiple channels are in place for easy access and lodge complaints.
- SH/SEA/GBV victims will be referred to local SEA/SH/GBV service provider for immediate support if they make a complaint directly to PIU and PMU.
- Confidentiality of victims are protected. GRM operator of PIU/PMU will keep SH/SEA/GBV allegation report confidential.
- No identifiable information on the victim shall be collected and stored in subproject Grievance Logbook.
- Costs of operating the SH/SEA/GBV GRM will be financed by the project.

Channels for lodging SH/SEA/GBV complaints:

- **Channel 1** – AP can submit a complaint, verbally or in writing, to Village Mediation Committee/Village Authorities
- **Channel 2** – Alternatively, AP can lodge their complaint, verbally or in writing, to GRM Social Focal Point of PIU/PMU.
- **Channel 3**– AP can submit a complaint to, or seek counselling support from local Lao Women's Union, as they wish, or refer to the national network/ center for women protection and counselling services using hotline number at 1362 and/or seek health care services at Mahosoth hospital (hotline number: 1527)

Under this project, PMU does not tolerate reprisals and retaliation against project stakeholders who share their views about Bank-financed projects.

9. MONITORING AND REPORTING

9.1 MONITORING

Monitoring is the method of ensuring mitigation measures are being implemented in accordance with ESMF and ESCP, and are effective. Monthly, quarterly- and semi-annual monitoring reports will need to be undertaken in order to:

- Improve environmental and social management practices;
- Ensure the efficiency and quality of the environmental and social assessment processes;
- Establish evidence- and results-based environmental and social impact assessment; and
- Provide an opportunity to report the results of the implementation of mitigation measures in future ESMPs and other project related documents.

To ensure effective implementation of the ESMF requirements, the PMU/DOW with TA from PTI and ESFP will put in place the following monitoring and reporting system which includes both internal monitoring and reporting and external monitoring and reporting.

9.1.1 Internal Monitoring

The Ministry of Finance (MOF) serves as the Project Management Unit (PMU) and leads overall project coordination, including responsibility for Components 3, 4, and 5, while Components 1 and 2 are managed by dedicated Component Management Units (CMUs) under MPWT (Component 1) and MAE (Component 2).

The PMU, with technical assistance (TA) from the Senior Environmental and Social Consultant (SESC), is responsible for overall supervision, capacity building, compliance monitoring, and reporting. The Construction Supervision Consultant (CSC) and Project Implementation Unit (PIU) are only deployed for Component 1, supporting site-level supervision, monitoring, and reporting. Contractors conduct daily monitoring of their own works and ensure adherence to the C-ESMP.

Reporting arrangements:

- **Overall PMU ESS monitoring and reporting:** The PMU, with TA from SESC, consolidates information from all CMUs and Component 3 and 4 activities, and prepares bi-annual Environmental and Social Standards Monitoring Reports (ESS Monitoring Report) for submission to the World Bank.
- **CMUs ESS Monitoring and Reporting.** For Components 1 and 2 has its own Environmental and Social Focal Point (ESFP), The ESFP within each CMU is responsible for consolidating and reviewing site-level monitoring data, grievance records, and compliance updates in line with the approved ESF instruments. For Component 1, the CMU1 ESFP incorporates CSC/PIU quarterly reports into its bi-annual ESS monitoring report. CMU1 and CMU2's ESFPs compile

similar reports for their respective components. Each CMU then submits its consolidated report to the PMU, which further consolidates and submits the overall ESS Monitoring Report to the WB, ensuring consistent oversight, accountability, and adherence to ESCP and ESF requirements across all project components.

- **Component 1 (CMU1) ESS monitoring and reporting:**

➢ The CMU1, with TA from the SESC, incorporates the CSC/PIU quarterly reports into the bi-annual CMU1 ESS Monitoring Report and submits it to the PMU for onward submission to the WB

➢ The PIUs, with input from the CSC, must compile and submit a quarterly (every 3 months) monitoring report to the CMU1.

➢ Contractors submit monthly progress and compliance reports to the PIU and CSC, on E&S performance in accordance with performance indicators specified in the respective bidding documents and contracts, and the approved C-ESMPs.

➢ Monitoring will also cover grievance redress, implementation of land acquisition activities in accordance with the RPF/RP and EGEP, and implementation of the SEP consultation and disclosure activities. Monitoring of environmental and other social impacts should focus on ensuring that all environmental and social mitigation measures are implemented as per the ESMP (including the LMP).

➢ Data should be gender-disaggregated as much as possible. How and when monitoring indicators will be measured should be defined in the ESMP and other relevant plans. Table 10-1 presents proposed monitoring measures.

Table 9-1: Proposed Monitoring Measures

Parameter	Location	Means of Monitoring	Schedule	Responsible Agencies
Completion of detailed design and safeguard plans (SS-ESMP, RP, S-RP, EGEP, BMP, CHMP)	All sites	Document review	Prior to subproject approval	PMU, PIUs, PTI
Implementation of mitigation measures in approved documents: ESMP, RP, S-RP, EGEP, BMP, CHMP	All sites	Site visits, consultations, compliance review	Daily Monthly, quarterly, Bi-Annual	Contractors, PIUs, CSC, PTI, ESFP
Implementation of SEP and EGEP	All sites	Stakeholder consultation log, records review	Daily Monthly	PIUs, CSC, ESFP
Land acquisition and resettlement (RP/S-RP)	Affected sites	Field verification, compensation records, interviews	Quarterly	PMU, PIU, ESFP
GRM functioning	All sites	GRM log review, beneficiary feedback	Continuous	PMU, PIU, CSC

The bi-annual monitoring reports shall include information on the Project's environmental, social, health, and safety (ESHS) performance, including but not limited to:

- Prepare and submit to the Association regular Bi-Annual monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project. The reports shall include:
- Status of preparation and implementation of E&S instruments, status of ESCP and agreed action in the Aide-Mémoire (AM) (as required under ESCP).
- Status of preparation, disclosure, and implementation of required E&S management plans (e.g., site-specific ESIA, ESMPs, RAPs, EGEP(s), CHMP, BMP, if any).
- Summary of stakeholder engagement activities, including consultations with ethnic groups and communities – in accordance with guidance in SEP and EGEP.
- Summary of grievances received and resolved (as recorded in project's grievance logbook)
- Environmental and social performance of contractors and third-party monitoring firms, as reflected in Contractor's monthly and quarterly progress reports - as described in C-ESMP (e.g., OHS, labor and working conditions).
- Number and status of reported incidents and accidents, and follow-up actions in accordance with the incident reporting procedure (see Action E below).
- Coordination and compliance updates involving the Cultural Heritage Office and UNESCO (for activities in heritage areas) and the Mekong River Commission (MRC) (for works along international waterways).
- Capacity building activities conducted (as per Capacity Building Plan).
- Any significant issues or deviations from agreed mitigation measures and corrective actions taken.

Incident or Accident Reporting

In the event of any significant incident or accident related to project activities funded through the project implementation including, but not limited to, death or serious injury to workers or the public; acts of violence, discrimination, or protest; allegations of SEA/SH and VAC; forced or child labor; major pollution; displacement without due process; significant community conflict; disease outbreaks; or unforeseen impacts to cultural heritage or biodiversity, the PMU, with support from the SESC and CSC, must notify the World Bank within 48 hours of becoming aware of the incident. Upon request, the PMU shall provide all available information and details regarding the incident.

Following notification, the PMU shall arrange for an appropriate review to identify the immediate, underlying, and root causes of the incident or accident. Based on this review, the PMU shall prepare, agree with the Bank, and implement a Corrective Action Plan outlining the measures and actions to be taken to address the impacts and prevent recurrence, within a timeframe acceptable to the Bank (See template at reporting template in Labor Mangement Procedures (Annex 7).

Incident reporting, analysis, and management shall follow the World Bank's Environmental and Social Incident Reporting Toolkit (ESIRT), which provides guidance on classification, timelines, and reporting protocols for E&S incidents that occur in the project area or are associated with the project. For further details, ESIRT, including its Annex 1: List of Reportable Incidents.

10. COSTS AND BUDGET

The ESMF implementation cost for the SEADRM II Project is estimated at USD 1,051,000, covering both Component 1 and Components 2–5 as summarized in Table 11-1.

Under the PMU budget (USD 50,000), costs include specific training on ESF instruments such as the LMP, CoC, and E-Waste Procedure; SEP and GRM implementation for C2, C3, C4 and C5 (materials, communication, grievance handling); and ESS monitoring and reporting led by the SESC.

For Component 1 (USD 1,001,000), covers a comprehensive range of activities, including:

1) Capacity Building and Training – Delivery of three rounds of training sessions in each project provinces (venue, travel, and refreshments) targeting PIUs, CSCs, contractors, and project committees.
2) Stakeholder Engagement and Communication – Translation, printing, and dissemination of SEP-related materials to support inclusive and culturally appropriate engagement across all project provinces.
3) Implementation of RPs, BMP and CHMP – will be under CMU1 budget.
4) Technical Assistance and Staffing – Recruitment one SESC, one full time Environmental and Social Consultant (ESC), and two Junior Environmental and Social Specialists (JESS) under PTI to ensure ESF oversight and institutional strengthening.
5) GRM, EGEP, and RP Implementation – Field-level implementation, training, and monitoring of GRM, EGEP, and resettlement plans across the Project including DMS, compensation updating, and disbursement.
6) Monitoring and Data Systems – Quarterly environmental and social compliance monitoring by PMU/PTI and provincial PIUs; development of a real-time E&S database for MPWT projects; and adoption of a web-based Right-of-Way (ROW) encroachment management system to support implementation of the 2023 Waterways Law.

Preparation of site-specific ESIA, ESMP, RP, CHIA, CHMP, and BMP for subprojects in the project provinces, in compliance with national regulations and World Bank requirements, will be financed under the consultant firms' budget recruited through CMU1 for the preparation of master plans, feasibility assessments, and detailed designs.

Unexploded Ordnance (UXO) Clearance – costs associated with UXO screening, assessments, permitting, and clearance are incorporated into civil works contractor cost (provisional sum).

Implementation of E&S Plans – Execution of site-specific ESMPs is included as part of contractors' obligations under civil works contracts.

Table 10-1 Estimated Budget for the ESMF Implementation

Activity/Cost Item	Notes/Remarks	Estimated Budget (USD)
I. ESMF budget for C2, 3, 4 and 5	**Under PMU Budget**	**50,000**
1. Specific training on ESF instruments including LMP, COC and EWP	The training shall be carried out by SESC to be hired under C1.	10,000
2. SEP and GRM implementation	Communication materials and grievance redress if any	20,000
3. ESS Monitoring and reporting including incident reporting	Lead by SESC	20,000
II. ESMF Budget for C1:		**1,001,000**
1. Preparation of Site Specific E&S Documents		**Under FS consulting firm budget**
• Prepare SESA for Master Plan and Feasibility Study for LNT and VTE	For WB	Under FS consulting firm budget
• ESIA, ESMP, RP, CHIA, CHMP, BMP for LPB	For WB and MAE requirements	Under FS consulting firm budget
• ESIA and ESMP for ODX	MAE Requirement	Under FS consulting firm budget
• ESIA, ESMP, and RP for BKX	For WB and MAE requirements	Under FS consulting firm budget
• ESIA, ESMP, and S-RP for VTE	For WB and MAE requirements	Under FS consulting firm budget
2. Trainings for staffs (venue, travel, refreshments etc.) for Committees, CSC, and contractors	3 times x 5 provinces	**30,000**
3. Translation, printing and communication materials as per SEP	5 provinces	**30,000**
4. Cost of UXO assessments and clearances or permits		**Contractor cost (provisional sum)**
5. Implementation of site-specific ESMPs		**Contractor cost**
6. Implementation of BMP and CHMP		**100,000**
7. Environmental and social consultants/firm:		**431,000**
• one (1) qualified SESC as a part time - mainly for planning, capacity building, supervision, monitoring and reporting – outputs-based.	300 working days over 5 years	125,000
• one (1) full-time ESC	5 years	270,000
• two (2) JESS to support overall E&S Management and administration	5 years	36,000
8. **Implementation of GRM, EGEP, RPs**		**200,000**

Activity/Cost Item	Notes/Remarks	Estimated Budget (USD)
• Implementation of GRM, and SEP (training and monitoring) and EGEP for ODX	5 provinces	20,0000
• Implementation of RPs for 3 provinces including DMS, updating Compensation and Unit Rate, Carry out compensation payment process: ODX, LPB, BKX and VTE	3 provinces	180,000
9. **Travel and accommodation budget for ESS Compliance Monitoring**		**210,000**
• PMU/PTI Compliance motoring on a quarterly basis for 3 years	5 provinces x 3 times per year x 5 years	75,000
• PIU/SMWGs (5 provinces) on a quarterly basis for 5 years (USD 4,000/prov./year)	5years x 5 provinces	100,000
• Adopt the ROW Web-based database for Waterways Encroachment Management to systematically identify, monitor, and manage encroachments, ensure compliance with Law on Waterways (No. 58/NA, 2023), and support transparent decision-making during project planning and implementation.	Work on both: Offline Online-real-time database	35,000
TOTAL		**1,051,000**

ANNEXES

Annex 1 – Environment & Social Screening Form

This Environmental and Social Screening Form applies to all activities/subprojects to be funded by the project include activity/subproject involving in civil works, technical assistance and feasibility study**, except for** Component 3.1 (Payment of Disaster Risk Insurance Premium)**,** which will be managed under the Lao PDR Contingency Plan (LCP)**.**

In accordance with World Bank ESS1 (Assessment and Management of Environmental and Social Risks and Impacts)**,** environmental and social screening shall be carried out **as soon as** a subproject is proposed**.**

The objective of this Annex 1 is to identify possible environmental and social risks and impacts of each proposed subproject or study and mitigation measures in compliance with relevant ESSs. Based on the results of the environmental and social screening, appropriate E&S management tools will be developed and implemented for each relevant subproject by the responsible agencies. The type and scope of these tools will correspond to the level and nature of identified risks and impacts. Depending on the screening outcomes, the following instruments may be required. A SESA will apply to sector-wide or programmatic activities where downstream impacts cannot yet be defined. An ESIA, including a SS-ESMP will be prepared and applied for new construction civil works subproject, including activities under project's Component 1 riverbank protection and flood risk management works located along the Mekong River and major tributaries. An ESCOP is provided in this ESMF and will apply to renovation civil work activities.

The following E&S Screening Form shall remain a **living document**, to be updated whenever there is a change in subproject scope, site, or activity that could alter the E&S risk profile.

1. Subproject Information

Item	Description
Subproject Title	
Subproject Location	
CMU in Charge	
Estimated Cost	
Proposed Start/Completion Date	
Brief Description of Subproject	

2. Environmental and Social Screening Checklist

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
ESS 1 – Assessment and Management of Environmental and Social Risks and Impacts			
1	Does the subproject include civil works (e.g., riverbank protection, drainage, hydromet installation) that may cause E&S risks including		Prepare a SS-ESIA and/or SS-ESMP proportionate to the level of identified risks, detailing site-specific impacts,

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
	but not limited to erosion, sedimentation, noise/dust emissions, traffic hazards, OHS/CHS risks, or UXO exposure?		mitigation and monitoring measures, institutional responsibilities, budget, and implementation schedules, in full compliance with ESS requirements and national regulation
2	Will the activity/subproject supports technical assistance/feasibility study resulting in master plans and/or DRM/urban plans that may shape future investment and downstream E&S impacts?		Prepare SESA integrating alternatives, mitigation hierarchy, and consultation.
3	Is the implementing agency's E&S capacity (DOW/DMH/MOF/PTI/PIU) insufficient to apply ESF tools or supervise contractors?		Prepare and implement capacity-building plan, appoint of ESF Focal Point for each level, establish clear monitoring and reporting of E&S compliance.
4	Is the subproject located in or near an area with potential Unexploded Ordnance (UXO) contamination that could cause fatalities or injuries to workers or communities during construction? • Identify potential UXO-contaminated sites based on consultation with local authorities and communities. • Verify through available UXO risk maps or NRA records.		• Engage a certified UXO agencies to conduct surveys and clearance in accordance with National Regulatory Authority (NRA) procedures. • No construction or site activity shall commence until UXO clearance is completed and certificate is issued by NRA. • Include UXO clearance certificate in ESMP documentation.
5	Will the activity/subproject support minor renovation civil work		Apply ESCOP provided in Annex 7.
ESS 2 – Labor and Working Conditions			
6	Will the activity/subproject engage direct, contracted, community, or primary-supply workers who may face risks of discrimination, unfair treatment, SEA/SH, or lack of grievance access?		Implement LMP and relevant COC as part of ESMP covering terms, equal opportunity, grievance mechanism, and CoC/SEA-SH clauses.
7	Are there OHS hazards (heavy machinery, height/electrical work, excavation, chemicals) related to the activity/subproject?		Include OHS Plan in SS-ESMP and C-ESMP; training, PPE, supervision per WBG EHSG.
8	Will labor influx or non-local workers strain local services or heighten SEA/SH risks in communities?		Apply as part of SS-ESMP/C-ESMP a SEA/SH Action Plan; promote local hiring; worker GRM and supervision.
9	Is there any possibility of child or forced labor in construction or supply chains?		Prohibit in contracts; monitor compliance through supervision.
ESS 3 – Resource Efficiency and Pollution Prevention and Management			

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
10	Will works generate dust, noise, vibration, or air/water pollution affecting nearby residents, schools, or sensitive receptors?		Include mitigation in as part of SS-ESMP/C-ESMP (water spray, timing, covering, equipment maintenance).
11	Will construction require material sourcing (borrow pits, quarries) potentially causing erosion, habitat loss, or safety hazards?		Use only licensed sources and obtain required permits; rehabilitate sites after use. If a new quarry or borrow pit is needed, conduct E&S and UXO screening, obtain approvals from authorities and landowners, and prepare a site-specific extraction and rehabilitation plan as part of the SS-ESMP, with all measures implemented before, during, and after the operation.
12	Will fuels, oils, or chemicals be stored on site, posing spill or fire risks?		Include spill control and fire-safety plan in SS-ESMP/C-ESMP.
13	Will solid, hazardous or electronic waste (e.g., batteries, sensors, old equipment) is generated that may pollute soil or water?		Manage and dispose of solid waste through approved collection, recycling, or disposal facilities. Store, handle, and dispose of hazardous waste in accordance with national regulations using licensed facilities. If relevant, apply the E-Waste Management Procedure include collection, storage, and dispose off in accordance with ESS3 requirement.
14	Will there be significant water or energy demand that may affect community supply or utilities?		Assess efficiency and include conservation measures in design, SS-ESMP/C-ESMP.
15	Could the project cause GHG emissions or persistent pollutant releases?		Include climate adaption or climate resilience measures in design/, SS-ESMP/C-ESMP.
ESS 4 – Community Health and Safety			
16	Will construction traffic, equipment, or machinery increase accident risk to pedestrians, school children, or tourists along access roads or public spaces?		Prepare a Traffic and CHS Management Plan as part of the SS-ESMP/C-ESMP; include traffic signage, access barriers, flag personnel, and speed control measures.
17	Will there be a risk for community to access the construction area for swimming, bathing, fishing, washing, or water collection?		Include specific CHS measures in the SS-ESMP/C-ESMP include install fencing, warning signs, and restricted zones around active sites; provide alternative safe access points where possible; conduct awareness

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
			campaigns on safety near construction areas.
18	Will the presence of project workers increase the risk of transmitting communicable diseases including sexually transmitted infections, or waterborne diseases to nearby communities		Include specific measures in the SS-ESMP/C-ESMP including health protocols, testing, awareness and hygiene campaigns; coordinate with local health authorities.
19	Will natural hazards (such as floods, landslides, or fires) or accidental spills/incidents endanger the community, workers, or project assets?		Prepare an Emergency Preparedness and Response Plan as part of SS-ESMP/C-ESMP; train workers and coordinate with local authorities and first responders.
20	Will UXO poses risk to local communities near the construction area include access roads, camps, material storage?		The subproject cannot be proceeded until UXO survey and clearance are completed by an authorized agencies and certification is obtained from NRA.
21	Will security personnel are employed who may interact with the public and pose potential human-rights or safety risks to communities?		Provide training on proportionate response, ethics, and human-rights conduct; monitor and record any incidents.
ESS 5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement			
22	Will land acquisition or access restrictions lead to physical or economic displacement, loss of assets, or livelihoods?		Prepare RP/S-RP per RPF; compensate at replacement cost; include livelihood restoration measures.
23	Are informal or customary users (without formal land titles) affected by loss of structures, crops, or access to natural resources?		Provide assistance and compensation for non-land assets and document all affected parties.
24	Will temporary land use for worker camps, storage, or access roads cause disturbance or damage?		Sign temporary land use agreements; rehabilitate and return land post-use; record in SS-ESMP.
25	Will vulnerable groups (women-headed, elderly, poor, or ethnic households) experience disproportionate impacts from land acquisition or restriction?		Include targeted livelihood and assistance measures in RP/ESMP; ensure inclusion in consultations and compensation processes.
26	Will land be voluntarily donated by individuals or communities for project activities?		Apply Voluntary Land Donation (VLD) Protocol consistent with donation criteria provided in RPF, ESS5 and national regulations: • Ensure donation is informed, voluntary, and documented with written consent. • Confirm that donation will not cause significant livelihood impact or

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
			physical displacement. • Disclose information and confirm right to refuse without coercion. • Record donation agreement (signed or thumbprint) witnessed by village authority and PIU. • Maintain documentation in project files for audit and monitoring.
ESS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources			
17	Will the activity/subproject affect Kay Biodiversity Area, other aquatic habitats, wetlands, vegetation, or wildlife, leading to potential loss of critical habitat, biodiversity or ecosystem functions?		Conduct assessment on critical habitat, if confirm prepare and implement BMP as required under ESS6.
28	Will activity/subproject poses risks related to the hunting, trading, or consuming of wildlife and other NTFPs?		Apply and provide mandatory training on the Project's Biodiversity Do's and Don'ts; ensure regular monitoring and enforcement by the PIU/CSC; and report any violations immediately as non-compliance incidents.
29	Will the subproject involve extraction of sand, gravel, or other construction aggregates from riverbeds, riverbanks, streams, wetlands, or floodplains?		**If YES → the source of material is NOT eligible for project financing subproject.** • Riverbed mining for aggregate sourcing is prohibited under SEADRM II. • The sourcing of material should be revised use licensed source only, off-site quarries or borrow pits must be approved by the relevant authority. **If NO → Proceed with material sourcing, subject to:** • Verification that all aggregates are sourced from legally permitted facilities; • Inclusion of aggregate sourcing controls and verification measures in the SS-ESMP/C-ESMP; • Routine supervision and monitoring during construction is a must.
30	Will the project introduce invasive species, affect fisheries, or alter aquatic ecosystems?		No activity/subproject.

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
31	Will construction alter natural flow, drainage, or hydrology, affecting wetlands, ecosystem services, or community water use?		Conduct a hydrological assessment and integrate adaptive design to prevent flow disruption, maintain ecological flows as part of FS and ESIA studies, and include these measures in the SS-ESMP/C-ESMP for implementation and monitoring.
ESS 7 – Indigenous Peoples (Ethnic Groups)			
32	Are Ethnic Groups (e.g., Khmu, Hmong) present or attached to the area who may be socially, economically, or culturally affected?		Prepare and implement EGEP as required under ESS7.
33	Could they face barriers to participation or benefit-sharing due to language or customs?		Prepare/disclose EGEP with interpreters and culturally appropriate consultation.
34	Will activities affect customary lands or resources central to their livelihood or identity?		Apply FPIC; compensate or share benefits per ESS7.
35	Could the project impact traditional practices or sacred sites of Ethnic Groups?		Mitigate through EGEP and participatory consultation.
ESS 8 – Cultural Heritage			
36	Is the project located in or near tangible cultural heritage or UNESCO World Heritage zone, temples, monasteries, stupas, monuments, or sacred natural sites that could be physically, visually, or structurally affected by project activities?		Conduct CHIA and prepare a CHMP in coordination with the Department of Heritage (DOH) and UNESCO; integrate design and construction mitigation measures to preserve authenticity and setting.
37	Will project activities (e.g., excavation, piling, dredging, and embankment work) risk disturbing buried archaeological objects, ancient foundations, or historical artifacts?		Include a Chance Find Procedure (CFP) in all construction contracts; train workers and supervisors to halt work and notify authorities immediately upon discovery.
38	Will project works, vehicle movement, or vibration visually or physically alter heritage landscapes, cause vibration damage to historic structures, or impair traditional view sheds?		Prepare and implement CHMP and SS-ESMP to avoid or minimize impacts on cultural heritage; and monitor compliance throughout construction.
39	Does the project area contain or influence intangible cultural heritage (e.g., rituals, festivals, spiritual ceremonies, craftsmanship, oral traditions, or community practices) that may be disturbed, relocated, or commercialized?		Prepare and implement a CHMP or EGEP, as applicable, to ensure culturally appropriate consultations with community leaders, monks, elders, and relevant groups; and incorporate agreed avoidance, protection, or benefit-sharing measures into the CHMP and SS-ESMP; and monitor implementation throughout the subproject..

#	Screening Question (including indicative risks/impacts)	Yes/No/NA	Required Action if "Yes"
40	Will the project's information, visuals, or tourism-related outputs misuse, commercialize, or disclose confidential traditional knowledge or sacred information?		Prepare and implement a CHMP and SS-ESMP with consent from cultural custodians through culturally appropriate consultations; ensure confidentiality and fair benefit-sharing in line with ESS8; and incorporate all agreed measures into both the CHMP and SS-ESMP.
41	Are there religious or sacred features (e.g., shrines, cemeteries, spirit forests, ritual trees) within the impact area that might be temporarily or permanently affected?		Prepare and implement a CHMP and SS-ESMP with field verification by local and religious authorities; adjust alignment or design as needed; and incorporate agreed mitigation measures into the CHMP and ESMP for implementation and monitoring.
ESS 10 – Stakeholder Engagement and Information Disclosure			
42	Are there stakeholders (local communities, ethnic groups, women, vulnerable HHs, businesses) who may be affected or benefit from the project?		Prepare/implement SEP with inclusive engagement and feedback mechanisms.
43	Do vulnerable or ethnic groups require special consultation methods (translation, timing, venues)?		Use interpreters, accessible materials, gender/culturally sensitive approaches.
44	Is the GRM established, accessible (including SEA/SH channel) to all stakeholders?		Operationalize and disseminate GRM contacts and procedures widely.
45	Were consultation results and responses documented and disclosed publicly in Lao and local languages?		Record feedback and integrate into design and ESMP; publish locally and online.
46	Does the risk classification or sensitivity require public disclosure and early consultation?		Disclose E&S instruments prior to appraisal; conduct meaningful consultation and record feedback.

Annex 2 – Terms of Reference for Strategic Environmental and Social Assessment (SESA)

Annex 2.1 – Generic Terms of Reference for Strategic Environmental and Social Assessment

1. Introduction

The Government of Lao PDR, with assistance from the World Bank, is preparing the Southeast Asia Disaster Risk Management Project Phase II (SEADRM II), which includes flood risk and urban resilience support in the Master Planning (MP) and Feasibility Studies (FS). While these planning activities do not directly result in physical investments, they play a decisive role in shaping future investment priorities, site selection, and design options, and may lead to potential environmental and social risks and impacts.

This Strategic Environmental and Social Assessment (SESA) is a proactive decision-support tool intended to guide the selection, siting, sequencing, and design of investment options under the MP and FS, ensuring that environmental and social risks are avoided or minimized at source and that positive outcomes are maximized. The SESA is undertaken in accordance with Lao PDR regulations and World Bank Environmental and Social Standard 1 (ESS1).

2. Objectives

The objectives of the SESA conducted as part of the preparation of the Master Plans and Feasibility Studies for flood resilience, respectively, are two–fold:

At the strategic planning level (covering the full scope of the MP and FS):

- Systematically examine environmental and social risks and opportunities associated with all investment options proposed under the Master Plan and Feasibility Studies, covering ESS1–ESS10, as applicable.
- Assess direct, indirect, and cumulative impacts, including climate change–related risks and long-term sustainability considerations.
- Provide early guidance on avoidance, alternatives, and mitigation measures to inform planning and design decisions before investments are locked in.

At the policy and institutional level (national and subnational):

- Revisit the adequacy of relevant laws, regulations, policies, and institutional arrangements related to flood risk management, urban planning, and disaster resilience.
- Propose strategic policy, institutional, and capacity-building actions to strengthen environmental and social risk management over the medium to long term (e.g., 10 years and beyond), supporting inclusive, climate-resilient, and environmentally sustainable development.

3. Approach

The SESA will be implemented as a two-stage process, aligned with the development of the Master Plan and Feasibility Studies:

- Stage 1 – Interim SESA (Upstream / MP-supporting stage):
    - Consolidate and analyze baseline environmental and social data;
    - Identify "no-go" areas, sensitive zones, and key environmental and social constraints;
    - Support the development of alternative growth and investment scenarios (e.g., no-action, business-as-usual, climate-resilient options);
    - Embed environmental and social safeguards into spatial planning, zoning, and strategic design principles;
    - Prepare a high-level mitigation and monitoring framework to guide MP preparation.
- Stage 2 – Final SESA (MP/FS-validation stage):
    - Conduct a deeper assessment of environmental and social risks and impacts of the draft Master Plan and Feasibility Studies, using IAIA-aligned SESA methodologies;
    - Evaluate whether proposed plans adequately address identified risks and opportunities;
    - Identify additional mitigation, institutional strengthening, and monitoring measures as required;
    - Provide updated guidance on governance, enforcement capacity, and implementation arrangements.

4. Scope of Work

(a) Situation Analysis

(i) Strategic Sectoral and Spatial Analysis

The consultant shall gather and analyze biophysical, social, and climate risk data using secondary sources and targeted field inputs. The baseline shall be spatially explicit. All datasets and metadata must be provided as georeferenced files (e.g., shapefiles or GeoJSON), accompanied by a Data Management Plan covering data sources, quality control, assumptions, and update protocols.

As a minimum, baseline datasets shall include:

- Protected areas, Key Biodiversity Areas (KBAs), and critical habitats;
- Floodplains, erosion-prone and landslide-prone zones;
- Riparian buffers and river basin hydrology;

- Cultural heritage features (tangible and intangible);
- Ethnic group territories and community land use;
- Existing and planned land use/zoning;
- Ecosystem services (provisioning and regulating);
- Socio-economic data disaggregated by gender and ethnicity.

Strategic development scenarios will be used to assess cumulative and long-term impacts.

(ii) Institutional and Legal Framework Analysis

The consultant shall assess national and subnational institutional arrangements relevant to flood risk management, urban planning, environmental management, and social safeguards. This shall include an explicit assessment of enforcement capacity, covering:

- Institutional mandates and inter-agency coordination (e.g., MAE, MPWT, provincial authorities);
- Budgeting and staffing constraints;
- Permitting and approval processes;
- Monitoring, reporting, and compliance mechanisms.

Institutional mandates shall be mapped against SESA recommendations to identify gaps in responsibility for screening, mitigation, enforcement, and monitoring.

(iii) Stakeholder Assessment and Engagement

Key stakeholders—including government agencies, communities, civil society, women, ethnic groups, and persons with disabilities—shall be identified and analyzed.

A SESA-specific Stakeholder Engagement Plan (SEP) shall be prepared, building on the Project SEP and including:

- Differentiated engagement strategies for women, ethnic groups, and persons with disabilities;
- Use of local languages and culturally appropriate consultation methods;
- Engagement approaches tailored to both Stage 1 and Stage 2 of the SESA.

(b) Identification and Evaluation of Environmental and Social Risks and Opportunities

Priority environmental and social risks and opportunities shall be identified and evaluated in consultation with stakeholders. The assessment shall:

- Apply ESS1 risk categorization;
- Address cumulative and climate-related risks;
- Identify key constraints and opportunities for MP and FS design.

The consultant shall prepare two sets of practical E&S integration guidelines:

- One for Master Plan development (e.g., zoning, buffers, green infrastructure, exclusion areas);

- One for Feasibility Studies (e.g., alternatives analysis, safeguards integration, thresholds for downstream ESIA)

5. SESA Recommendations

Recommendations shall focus on:

- Strategic avoidance and risk reduction;
- Climate-resilient and inclusive design principles;
- Institutional reform and capacity building;
- Strengthened enforcement and monitoring mechanisms.

All recommendations shall be costed, time-bound, and aligned with MP/FS implementation roadmaps.

6. Public Participation and Disclosure

The SESA shall apply a participatory and inclusive consultation process throughout both stages. Draft outputs shall be validated through multi-stakeholder workshops. Final SESA reports and guidelines shall be disclosed in Lao and English and submitted to the World Bank and relevant national authorities for review and clearance.

7. Deliverables

The key deliverables for the SESA under SEADRM II will include:

- **Inception Report** (Month 1): Including methodology, proposed analytical framework, preliminary stakeholder map, consultation plan, and a detailed outline of the final SESA.
- **Interim Analytical Report** (Month 3): Consolidating findings from baseline analysis, legal/institutional review, and preliminary risk assessment.
- **Draft SESA Report with E&S Guidelines** (Month 4): Incorporating stakeholder feedback, trend and scenario analysis, and draft integration guidelines for the Master Plan and FS.
- **Final SESA Report** (Month 5): Reflecting final stakeholder validation, World Bank and government feedback, and including finalized Environmental and Social Integration Guidelines.

8. Key Staff and Required Skills

The assignment will be carried out by a qualified consulting firm with experience in environmental and social assessments, urban resilience, and disaster risk management. The team should comprise both international and national experts. The team leader must be a senior international specialist with at least a Master's degree in environmental planning or a related field and a minimum of 10 years of relevant experience in strategic E&S assessments and urban infrastructure planning. Familiarity with Lao PDR's regulatory framework and World Bank ESF (especially ESS1) is essential.

The proposed team should include:

Core SESA Team (E&S Focus):

1. Team Leader / Senior Environmental and Social Specialist **–** leads overall SESA, ensures integration of environmental and social dimensions into FS and MP, and aligns with ESF (ESS1–ESS10).
2. Environmental Specialist **–** assesses biophysical impacts, biodiversity, ecosystem sensitivity, pollution risks, and environmental management measures.
3. Social Development Specialist **– covers** land, livelihoods, ethnic groups, inclusion, and stakeholder engagement, ensuring ESS5, ESS7, and ESS10 compliance.
4. Gender and Inclusion Specialist **–** integrates gender, vulnerable group, and ethnic considerations into planning, consultation, and mitigation measures.

To Be Covered by FS / MP Team:

- GIS and Spatial Mapping Specialist – supports spatial baseline, sensitivity mapping, and overlay analysis for environmental and social risk zoning.
- Climate and Disaster Risk Management Specialist – can be under FS (hazard modeling, design standards).
- Institutional and Policy Analyst **–** can be part of FS/MP policy and institutional strengthening team.

8. Proposed Schedule

The SESA is expected to be completed within a five (5) month period, aligned with the timeline for the Master Plan and Feasibility Study preparation. The assignment is expected to begin during the first year of SEADRM II implementation (anticipated start date: TBD).

Timeline	Activity
Month 1	Contract signing and inception; submission of Inception Report
Months 2–3	Data gathering, site visits, consultations, and preparation of interim outputs
Early Month 4	Stakeholder consultation workshops; presentation of Draft Report
Mid Month 5	Submission of Final Draft incorporating feedback
End Month 5	Final Report submission and public disclosure

9. Reporting Arrangements

The SESA consultant team will report to the Project Management Unit (PMU) within DOW. Technical oversight will be provided by a multi-sectoral steering group including representatives from concerned government authorities, and the World Bank task team. Regular coordination will be maintained with the MP/FS planning teams.

10. Recommended Background Documents

As a minimum, the following documents are recommended for review by the SESA consultant team:

- Law on Environmental Protection No. 53/NA (2024)
- Decree on Environmental Impact Assessment No. 389/GoL (2022)
- Ministerial Instruction on Strategic Environmental Assessment No. 0483/MONRE (2017)
- World Bank's Environmental and Social Framework (2018) and most updated Guidance Notes for Environmental and Social Standards applicable to the project
- Project Appraisal Document
- Environmental and Social Management Framework (ESMF)
- Stakeholder Engagement Plan (SEP)
- Environmental and Social Commitment Plan (ESCP)
- Relevant previous Master Plans and Feasibility Studies
- Lao PDR National Disaster Risk Reduction Strategy and Urban Development Plans

Please see other relevant legal documents in Chapter 2 of this ESMF.

Annex 2.2 Illustrative Table of Contents for SESA

ACRONYMS
ACKNOWLEDGEMENTS
EXECUTIVE SUMMARY

- Decision-support role of the SESA in guiding investment prioritization, siting, and design under the MP and FS
- Key findings from Stage 1 (Interim SESA) and Stage 2 (Final SESA)
- Priority strategic recommendations and next steps

1. INTRODUCTION

Sets the context for the SESA as a proactive decision-support tool under SEADRM II. Explains why strategic environmental and social analysis is required to inform upstream Master Planning (MP) and Feasibility Studies (FS), describes the two-stage SESA approach, analytical framework, and SESA-specific stakeholder engagement strategy.

1.1 Background on SEADRM II and Scope of Master Planning and Feasibility Studies
1.2 Objectives and Decision-Support Role of the SESA
1.3 Two-Stage SESA Methodology and Analytical Framework

- Stage 1: Interim SESA to guide MP development
- Stage 2: Final SESA to assess draft MP/FS using IAIA-aligned methodology

1.4 Structure of the Report
1.5 SESA-Specific Stakeholder Engagement Plan and Participatory Approach (Updated)

2. STRATEGIC CONTEXT: FLOOD RISK, URBAN DEVELOPMENT, AND CLIMATE RESILIENCE

Describes and analyzes the flood risk, urbanization, and climate resilience context in Lao PDR, with focus on project provinces. Integrates cross-sectoral linkages with land use, natural resources, biodiversity, cultural heritage, and vulnerable communities.

2.1 Spatially Explicit Baseline and Development Trends

- GIS-based baseline of floodplains, KBAs, critical habitats, riparian buffers, heritage sites, ethnic group territories, and land use/zoning
- Climate risk and hazard overlays (flood, erosion, landslide)

2.2 Strategic Development Scenarios and Growth Pathways

- No-action, business-as-usual, and climate-resilient scenarios

3. INSTITUTIONAL, LEGAL, AND ENFORCEMENT CAPACITY ASSESSMENT

Assesses the policy, legal, and institutional framework governing disaster risk management, flood protection, urban planning, and social safeguards.

3.1 Policy, Legal, and Regulatory Framework

(including Law No. 53/NA (2024), Decree No. 389/GoL (2022), SEA Instruction No. 0483/MONRE (2017), and WB ESF)

3.2 Institutional Roles, Mandates, and Coordination Mechanisms
3.3 Enforcement Capacity and Budgetary Assessment

- Permitting, compliance monitoring, staffing, and financing

3.4 Institutional Mapping Against SESA Recommendations

- Who screens, who enforces mitigation, who monitors

3.5 Public Participation and Consultation Mechanisms
3.6 Political Economy of Flood and Urban Resilience Planning

4. STRATEGIC ENVIRONMENTAL AND SOCIAL RISK AND OPPORTUNITY ASSESSMENT

Identifies and evaluates environmental and social risks and opportunities associated with MP and FS directions.

4.1 Key Environmental and Social Constraints and Opportunities

- Identification of “no-go” areas and sensitive zones

4.2 Cumulative and Long-Term Impacts of Planning and Investment Decisions

- Climate change and cumulative impact pathways

4.3 Analysis of Alternatives and Scenario Comparison
4.4 Stakeholder Priorities and Validation of Findings

5. STRATEGIC FINDINGS AND RECOMMENDATIONS

Presents prioritized, actionable recommendations to strengthen sustainability, inclusion, and resilience in MP, FS, and future investments.

5.1 Summary of Key Strategic Findings
5.2 Recommendations for MP and FS Integration

- Zoning, buffers, green-blue infrastructure, and safeguards integration

5.3 Institutional Strengthening and Capacity-Building Measures
5.4 Implementation Risks, Political Economy Constraints, and Mitigation Measures

6. IMPLEMENTATION, MONITORING, AND GOVERNANCE FRAMEWORK

- High-level mitigation and monitoring framework emerging from Stage 1 and Stage 2 SESA
- Roles and responsibilities for implementation and oversight

7. COMMUNICATIONS, DISCLOSURE, AND UPTAKE STRATEGY

Outlines dissemination and uptake of SESA findings, including:

- SESA-specific disclosure plan
- Local-language summaries and stakeholder feedback loops
- Integration of SESA outputs into MP/FS decision-making

8. ENVIRONMENTAL AND SOCIAL INTEGRATION GUIDELINES

8.1 Guidelines for Integration of E&S Considerations into Master Planning

(e.g., land use zoning, exclusion areas, natural buffers, climate resilience)

8.2 Guidelines for Integration into Feasibility Studies and Downstream ESIA/ESMPs

(e.g., alternatives analysis, thresholds for site-specific assessment)

REFERENCES

ANNEXES

- SESA-Specific Stakeholder Engagement Plan (SEP)
- Spatial Baseline Data Inventory and GIS Metadata
- Matrix of Environmental and Social Issues, Risks, Gaps, and Recommendations
- Summary Reports from Consultation and Validation Workshops
- List of Persons Met and Interviewed
- Scenario Comparison Matrices and No-Go Area Maps
- SEA Screening and Scoping Tools

Annex 3 – Guidance and Template for Preparation of Subproject ESIA, ESMP and C-ESMP

In accordance with the World Bank's Environmental and Social Framework (ESF), particularly Environmental and Social Standard 1 (ESS1) on the Assessment and Management of Environmental and Social Risks and Impacts, as well as the Lao PDR national legal framework—namely, the Law on Environmental Protection No. 53/NA (2024), the Decree on Environmental Impact Assessment No. 389/GoL (2022), and the Ministerial Instruction on the List of Projects Requiring IEE or EIA (2023) subprojects under SEADRM II must undergo a structured process for environmental and social risk management. This includes the preparation, review, approval, and implementation of Site-Specific Environmental and Social Impact Assessments (SS-ESIAs) or Environmental and Social Management Plans (ESMPs), guided by the project's Environmental and Social Management Framework (ESMF). The following paragraphs outline the key procedural steps to ensure that risks are properly assessed and managed in full compliance with both World Bank ESSs and Lao regulatory requirements.

1. Screening

The process begins with the CMUs supported by the E&S Consultants, PIU and PTI conducting environmental and social screening for each proposed subproject using the template provided in the ESMF. This screening step determines the level of assessment required and the E&S instruments that are likely needed to be prepared. In addition to the ESF, the screening must comply with national requirements based on the Ministerial Instruction on the List of Projects Requiring IEE or EIA (2023), which classifies subprojects according to thresholds for Initial Environmental Examination (IEE) or full Environmental Impact Assessment (EIA). The E&S Screening (Annex 1) is used to systematically evaluate potential risks and sensitivities. Sensitive receptors such as villages, schools, hospitals, temples, markets, and cemeteries must be mapped and assessed for proximity to proposed construction or physical interventions. Initial stakeholder consultations are carried out to inform scoping, risk prioritization, and tailoring of assessment needs, in alignment with ESS1, ESS7 (Indigenous Peoples), and ESS10 (Stakeholder Engagement).

2. Scoping Report and Terms of Reference (ToR) for ESIA Study

Following the environmental and social screening results, the implementing agency supported by national consultants or CMU E&S risk management specialists—prepares a Scoping Report and associated Terms of Reference (ToR) for the ESIA, commensurate with the nature, scale, and risk of the proposed subproject.

This ESMF applies exclusively to World Bank–financed activities under the SEADRM II Project. Accordingly, for subprojects financed under SEADRM II, the Scoping Report and ESIA ToR shall be prepared in accordance with this ESMF, the Project ESCP, and the World Bank Environmental and Social Framework (ESS1–ESS10).

The Scoping Report and ESIA ToR define the scope of assessment, key environmental and social issues, methodology, alternatives analysis, stakeholder engagement requirements, and indicative deliverables for the ESIA study. They are standalone pre-assessment documents and are not part of the consultant's Inception Report. Following procurement and contract award, the selected consultant will prepare an Inception Report to confirm the detailed work plan and methodology, consistent with the approved Scoping Report and ToR.

For World Bank–financed subprojects under SEADRM II, the draft Scoping Report and ESIA ToR shall be submitted to the Association for review and No Objection prior to commencement of the ESIA study.

For subprojects subject to national environmental assessment requirements, the Scoping Report and ESIA ToR will also be submitted to the Ministry of Agriculture and Environment (MAE) or other relevant authorities for review and clearance, in line with the Environmental Protection Law (2024) and Decree on Environmental Impact Assessment No. 003/GoL (2022).

Where both World Bank and national requirements apply, the Project will harmonize procedures and prepare a single Scoping Report and ESIA ToR to satisfy both systems, to the extent feasible, and avoid duplication.

3. Preparation of SS-ESMP

Qualified safeguards consultants or technical staff prepare the SS- ESMP following the approved ToR. The assessment involves field visits, public consultations, impact analysis, and the development of appropriate mitigation and monitoring measures. Both instruments must fully address applicable ESSs and national requirements, and include sections on baseline conditions, risk analysis, mitigation measures, monitoring plans, grievance mechanisms, implementation responsibilities, and cost estimates.

4. Public Consultation and Disclosure

The draft SS-ESIA and ESMP is disclosed locally and online in Lao and relevant ethnic languages, in accordance with ESS10 and national disclosure requirements. The implementing agency organizes meaningful public consultations to ensure community understanding and feedback, with special attention to vulnerable groups, including women, ethnic minorities (ESS7), persons with disabilities, elder persons and Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) group. All stakeholder feedback is documented and integrated into the final version of the document to strengthen responsiveness and inclusivity.

5. Internal Review and Clearance

After consultations, the ESMP undergoes internal review by the implementing agency and relevant technical units (e.g., PTI, DOP). This review ensures technical quality, compliance with the ESMF, alignment with World Bank ESSs, and integration of public input. Written comments may be issued for revision if necessary. Upon satisfaction, the agency issues internal clearance, indicating that the instrument is ready for World Bank and/or government review.

6. Review and Approval

The final site–specific ESIAs, ESMPs, RPs, and EGEP(s) will be submitted to the World Bank for review and No–Objection before implementation.

For subprojects that meet the thresholds outlined in the Ministerial Instruction on Projects Requiring IEE or EIA (2023), the ESMP must be submitted to MAE or Department of Agriculture and Environment (DAE) for review and approval in line with Decree No. 389/GoL. The implementing agency coordinates closely with the relevant authorities to address any technical comments and secure formal clearance, which is required before physical works can begin.

7. Public Disclosure

Once approved by the World Bank and/or national concerned authorities, the final ESMPs, RPs, EGEP will be disclosed through project websites, local administrative offices at district level, and notice boards of villages the the subproject covers. Copies are made available in accessible formats and appropriate languages to ensure transparency and community ownership. This step reinforces accountability and allows continued community feedback throughout implementation.

9. Integration into Procurement and Implementation

The approved environmental and social instruments are then incorporated into procurement processes. Mitigation measures, monitoring responsibilities, GRM procedures, and contractor obligations are embedded in bidding documents and contracts. Contractors are also required to prepare and submit Contractor-ESMPs (C-ESMPs) aligned with the ESMP. These are reviewed and approved by the implementing agency before works commence.

10. Supervision and Monitoring

During implementation, the executing agency, together with supervision consultants, PTI, and the World Bank, conducts regular site monitoring to ensure the effective application of the mitigation and management measures in the ESMP. Regular environmental and social monitoring reports, including incident and grievance tracking, are submitted to the World Bank. Where necessary, the plans may be updated to reflect changing site conditions or lessons learned, ensuring continued compliance with ESS1 and national law throughout the project lifecycle.

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WB's ESS	E&S Risks and Impacts	Extent of risks/impacts	Duration	Risks without mitigation measures in place	Mitigation measures (MM) and E&S Sub-plans Ref.	Residual risks after MM
ESS1: Assessment and Management of Environmental and Social Risks and Impacts						
	Start with **subproject activities and followed by E&S risks and impacts**					
ESS2: Labor and Working Conditions						
ESS3: Resource Efficiency and Pollution Prevention and Management						
ESS4: Community Health and Safety						
ESS5: Land Acquisition, Restrictions on Land Use And Involuntary Resettlement						

WB's ESS	E&S Risks and Impacts	Extent of risks/impacts	Duration	Risks without mitigation measures in place	Mitigation measures (MM) and E&S Sub-plans Ref.	Residual risks after MM
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources						
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.						
ESS8: ESS8: Cultural Heritage						
ESS10: Stakeholder Engagement and Information Disclosure.						

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ESS2: Labor and Working Conditions				
ESS3: Resource Efficiency and Pollution Prevention and Management				
ESS4: Community Health and Safety				
ESS5: Land Acquisition, Restrictions on Land Use And Involuntary Resettlement				
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources				
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.				
ESS8: ESS8: Cultural Heritage				
ESS10: Stakeholder Engagement and				

Subproject Activities	Activities and E&S Risks and Impacts	Mitigation measures	Responsibility	Notes
Information Disclosure.				

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7.1.3 Project Implementation Unit (PIU)

7.1.4 Construction Supervision Consultant

7.1.5 Contractor

7.1.6 Communities

7.2 Monitoring and Reporting

WB's ESS	Monitoring Activities	Means of verification	Monitoring Frequency	Responsibility
ESS1: Assessment and Management of Environmental and Social Risks and Impacts				
ESS2: Labor and Working Conditions				

WB's ESS	Monitoring Activities	Means of verification	Monitoring Frequency	Responsibility
ESS3: Resource Efficiency and Pollution Prevention and Management				
ESS4: Community Health and Safety				
ESS5: Land Acquisition, Restrictions on Land Use And Involuntary Resettlement				
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources				
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.				
ESS8: ESS8: Cultural Heritage				
ESS10: Stakeholder Engagement and Information Disclosure.				

7.3 ESMP Budget

ANNEX 1 – E&S MANAGEMENT SUB-PLANS

- Occupational Health and Safety covering LMP
- Pollution Management Plan (Waste, Air, noise, water, waste)
- Quarry, Borrow Pits and Spoil Disposal Management Plan
- Traffic and Transport Management Plan
- Community Health and Safety Management Plan
- Emergency Response Plan – ESS4
- Biodiversity Management Plan (BMP) based on the E&S screening and/or COC
- Cultural Heritage Management Plan (CHMP) for LPB subproject and Chance Find Procedures (CFP) for others

Illustrative Table of Contents for Subproject C-ESMP

The Contractor shall prepare a **Contractor Environmental and Social Management Plan (C-ESMP)** based on the approved **Site-Specific ESMP (SS-ESMP)** within **60 days of contract award**. The preparation and approval process includes the following steps:

1. **Preparation by Contractor**
   - The Contractor prepares the C-ESMP incorporating all mitigation measures, monitoring requirements, and E&S management arrangements specified in the SS-ESMP.
   - The plan should include detailed roles, responsibilities, timelines, and resources for implementation.
   - The C-ESMP must cover all relevant Environmental and Social Sub-Plans (e.g., OHSP, Waste Management, Traffic Management, Community Health and Safety, Biodiversity Management, etc.).

2. **Technical Review by CSC**
   - The Contractor submits the draft C-ESMP to the **Construction Supervision Consultant (CSC)** for technical review.
   - The CSC verifies that the plan meets the requirements of the SS-ESMP, World Bank ESSs, and national regulations.
   - Any comments or recommendations from CSC are incorporated into the plan by the Contractor.

3. **Submission to PMU for Approval**
   - The CSC forwards the reviewed C-ESMP to the **Project Management Unit (PMU)** for formal approval.
   - The PMU ensures that the C-ESMP aligns with the Project's Environmental and Social Commitment Plan (ESCP), safeguards instruments, and contractual requirements.

4. **Implementation**
   - Once approved, the C-ESMP serves as the **primary guiding document for construction stage E&S management**.
   - The Contractor is responsible for daily implementation and monitoring, while the PIU and CSC oversee compliance and reporting.

5. **Updates and Revisions**
   - The C-ESMP may be updated as needed to address unforeseen risks, changes in design, or corrective actions identified during construction.
   - All updates require CSC review and PMU approval before implementation.

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1.1 Subproject Locations and Area of Influence (Maps, Coordinates)
1.2 Detailed Design of Subproject Activities

- Civil works design and layout
- Temporary facilities, borrow pits, storage areas
- Drainage, embankments, riverbank modifications

Table 2-1 Subproject Design Details

Design Component	Description / Technical Specs	Notes
Civil Works		
River/Drainage Works		
Temporary Sites (Quarry, Borrow Pit, Disposal)		
Worker Camps		
Access Roads		
Utilities / Other Infrastructure		

1.3 Tentative Construction Schedule / Sequence of Activities

2. LEGAL AND REGULATORY FRAMEWORK
2.1 National Laws, Regulations, and Permits
2.2 World Bank Environmental and Social Standards (ESS1–ESS10)

3. SITE SPECIFIC ENVIRONMENTAL AND SOCIAL BASELINE

Aspect	Key Baseline Information	Source / Reference
Environment		**ESIA, Field Survey**
Land use		
Waterbodies		
floodplains,		
soil type		
vegetation		
air quality		

Aspect	Key Baseline Information	Source / Reference
Noise emission		
….		
Biodiversity		**ESIA, Field Survey**
Presence of protected species,		
habitats,		
breeding/migrating patterns		
….		
Social	**,**	**Census, Field Survey**
Population		
ethnic groups,		
vulnerable communities		
….		
Cultural Heritage		**Cultural Heritage Assessment**
Heritage sites		
archaeological areas		
…		
Health & Safety	**,**	**Field Survey, PIU Reports**
Local hazards,		
access		
previous incidents		
UXO		
…		
Disaster Risk	**,**	**Historical data, MoNRE**
Floods,		
storms		
landslide risks		
..		

4. ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

4.1 Positive Impacts

4.2 Site Specific Risks and Impacts and Mitigation Measures

Table 4-1. Summary of E&S Risks and Impacts and Mitigation Measures

Subproject Activities	E&S Risks and Impacts	Mitigation Measures
ESS1: Assessment and Management of Environmental and		

Subproject Activities	E&S Risks and Impacts	Mitigation Measures
Social Risks and Impacts		
ESS2: Labor and Working Conditions		
ESS3: Resource Efficiency and Pollution Prevention and Management		
ESS4: Community Health and Safety		
ESS5: Land Acquisition, Restrictions on Land Use And Involuntary Resettlement		
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources		
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.		
ESS8: ESS8: Cultural Heritage		
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5.4 Environmental & Social Management Sub-Plans (Annex 1)

5.5 Management of Contractor
5.6 UXO Risk Management
5.7 Climate Change Adaptation
5.8 Gender Integration
7.9. Capacity Building and Training Plan
It is noted that risks and mitigation measures (and SOP) for operation phase will be prepared as part of the Project Operation Manual (POM) before project effectiveness, or before commencement of project implementation – as the latest).

6. STAKEHOLDER ENGAGEMENT & GRIEVANCE REDRESS
6.1 Stakeholder Consultation Requirements
6.2 Consultations During Subproject Preparation
6.3 Future Consultations During Implementation
6.4 Information Disclosure
6.5 Grievance Redress Mechanism
6.5.1 Steps for Grievance Resolution
6.5.2 GRM Logbook Management

7. ESMP IMPLEMENTATION, MONITORING & REPORTING, AND BUDGET

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7.1.1. Project Management Unit (PMU)
7.1.2 Component1 Management Unit (CMU1)
7.1.3 Project Implementation Unit (PIU)
7.1.4 Construction Supervision Consultant
7.1.5 Contractor
7.1.6 Communities
7.2 Monitoring and Reporting

WB's ESS	Monitoring Activities	Means of verification	Monitoring Frequency	Responsibility
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ESS3: Resource Efficiency and Pollution Prevention and Management				
ESS4: Community Health and Safety				

WB's ESS	Monitoring Activities	Means of verification	Monitoring Frequency	Responsibility
ESS5: Land Acquisition, Restrictions on Land Use And Involuntary Resettlement				
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ESS8: ESS8: Cultural Heritage				
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7.3 ESMP Budget

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- Community Health and Safety Management Plan
- Emergency Response Plan
- Biodiversity Management Plan (BMP) based on E&S screening and/or COC
- Cultural Heritage Management Plan (CHMP) for LPB subproject and/or Chance Find Procedures (CFP) for others

Annex 4 – Guidance for Biodiversity Management Plan

Annex 4.1 – Biodiversity Management Plan

This template provides guidance for the preparation of a Biodiversity Management Plan (BMP) under SEADRM II where biodiversity significance is identified, including in high-value aquatic and riparian systems such as the Mekong River and its associated corridors. The BMP is prepared in accordance with World Bank ESS6 and its Guidance Note (Appendix A), applicable Lao PDR national laws, and biodiversity safeguard practices applied in national infrastructure projects.

Where screening or ESIA findings indicate the presence of critical habitat or high biodiversity values such as those associated with the Mekong River, Key Biodiversity Areas (KBAs), or other sensitive ecosystems a Critical Habitat Assessment (CHA) shall be undertaken in accordance with the approved CHA Terms of Reference provided in Appendix 1. The outcomes of the CHA will directly inform the biodiversity objectives, mitigation measures, monitoring indicators, institutional responsibilities, and implementation priorities of the BMP. Indicative content for the Biodiversity Management Plan (BMP) is provided in Appendix A of the World Bank ESS6 Guidance Note. Accordingly, the BMP shall include, at a minimum, the following elements:

A. **Biodiversity Objectives:**
   Clearly defined objectives based on the findings of the biodiversity baseline and the recommendations of the ESIA, CHA, or other relevant environmental and social assessment documents. Objectives may include, as appropriate, commitments to *No Net Loss* for natural habitats or *Net Gain* for critical habitats, consistent with ESS6 requirements.

B. **Activities to Achieve BMP Objectives:**
   A description of the activities to be implemented to achieve the stated biodiversity objectives, together with any project-specific requirements. These activities may include, as relevant:

   - Establishment or support of new or expanded protected or conservation areas;
   - Site-specific habitat restoration, rehabilitation, enhancement, or improved habitat management;
   - Community benefit-sharing and livelihood restoration activities to address any negative socioeconomic impacts arising from biodiversity-related access restrictions, in accordance with ESS5;
   - Species-specific conservation or management interventions;
   - Monitoring of project implementation and biodiversity outcomes; and
   - Support for the long-term financial sustainability of conservation actions.

C. **Project Requirements and Biodiversity-Related Restrictions:**
Explicit requirements that implementing entities, contractors, and project workers must follow to achieve BMP objectives. These may include biodiversity-related prohibitions or restrictions, such as:

- Clearing or burning of natural vegetation outside approved areas;
- Off-road driving;
- Hunting, fishing, wildlife capture, or plant collection;
- Purchase or consumption of bushmeat or wildlife products;
- Free-roaming pets that may harm wildlife;
- Possession or use of firearms.

Where necessary, seasonal or time-of-day restrictions shall be applied to minimize adverse impacts, such as:

- Limiting blasting or noisy activities to periods when wildlife are least active;
- Timing construction to avoid bird nesting or breeding seasons;
- Scheduling river works or reservoir flushing to avoid key fish spawning periods;
- Restricting certain activities during sensitive migration or breeding periods.

D. **Implementation Schedule:**
A time-bound implementation schedule for key BMP activities, aligned with construction phases and other project activities, and clearly indicating milestones and sequencing.

E. **Institutional Responsibilities:**
Clear allocation of institutional roles and responsibilities for BMP implementation, supervision, monitoring, and enforcement, including PMU, CMUs, PIUs, CSCs, contractors, relevant government agencies, and—where applicable—community organizations.

F. **Cost Estimates and Financing:**
Detailed cost estimates for BMP implementation, including both upfront capital investments and long-term recurrent costs. The BMP shall identify funding sources for implementation and operation, including responsibilities for financing recurrent biodiversity management and monitoring activities.

Appendix 1. Terms of Reference (ToR) for Critical Habitat Assessment (CHA)

1. Background and Rationale

The SEADRM II Project may involve subprojects located in or adjacent to areas of high biodiversity value, including natural habitats, Key Biodiversity Areas (KBAs), and ecologically sensitive aquatic and riparian systems. In accordance with World Bank Environmental and Social Standard 6 (ESS6): Biodiversity Conservation and Sustainable Management of Living Natural Resources, a Critical Habitat Assessment (CHA) is required where screening or ESIA findings indicate the potential presence of critical habitat or impacts on globally, nationally, or regionally significant biodiversity values.

The CHA is a specialized assessment that determines whether critical habitat is present and evaluates potential project impacts on critical habitat values, in order to inform avoidance, mitigation, monitoring, and—where applicable—biodiversity enhancement measures.

2. Objectives of the CHA

The objectives of the Critical Habitat Assessment are to:

- Determine if the area in which project is located includes critical habitat, as defined under ESS6;
- To obtain an understanding of the set of "biodiversity values", if any, that qualify the area as Critical Habitat;
- Assess the potential direct, indirect, and cumulative impacts of proposed project activities on critical habitat values;
- Apply the mitigation hierarchy (avoid–minimize–restore–offset) to critical habitat risks;
- Provide clear, evidence-based recommendations to inform project design, decision-making, and environmental and social management;
- Directly inform the objectives, mitigation measures, monitoring framework, and cost estimates of the Biodiversity Management Plan (BMP), consistent with Appendix A of the ESS6 Guidance Note.

3. Scope of Work

The CHA shall be proportionate to project risk and scale and shall include, at a minimum, the following tasks:

Task 1: Scoping and Definition of the study area

- Define the spatial and temporal boundaries of the assessment, including upstream/downstream and indirect impact zones.
- Identify project components and activities with potential biodiversity interaction (e.g., riverbank works, flood gates, drainage, access roads).

- Provide maps of the Study Area, including overlap with project boundaries and major landscape and hydrological features.

Task 2: Baseline Assessment

- Compile and review available secondary data from government agencies, conservation organizations, and published sources.
- Conduct targeted field surveys, as required, to verify the presence and condition of:
    - Critical habitat features;
    - Threatened, endemic, or restricted-range species;
    - Ecologically important aquatic and riparian habitats;
- Based on the secondary sources and the targeted surveys, provide a full listing of all candidate biodiversity values, in table format, with potential to qualify as Critical Habitat. This listing must include each candidate biodiversity value (table rows) with minimum details (table columns) on:
    - Key information sources (e.g. IUCN Red List, expert sources)
    - Rationale for inclusion or exclusion from further assessment
    - Rationale on potential to qualify as Critical Habitat values, where rationale exists for inclusion in further assessment.
    - Key information needs for biodiversity values where rationale exists for inclusion and potential to qualify as Critical Habitat exist. Information needs must focus on necessary data required to confirm status as Critical Habitat if this is not possible with existing data.
- Apply precautionary principle while determining the critical habitat qualification for candidate biodiversity values of information deficient species.
- Prepare spatially explicit baseline mapping of habitats and biodiversity values.

Task 3: Mapping of Critical Habitat area of analysis

- Describe and provide justification for a sensible boundary for the areas to be considered for confirmation of Critical Habitat. This area will be based on the characteristics of biodiversity values likely to qualify as Critical Habitat, as identified in Task 2. This shall consider ecologically determined spatial scope – i.e. wider distributions of the potentially affected species or ecosystems and the ecological patterns, processes, and functions needed to maintain them (e.g., connectivity, hydrology)
- Provide maps of the proposed area of analysis, including overlap with project boundaries and major landscape and hydrological features.

Task 4: Critical Habitat Determination

- Screen biodiversity values identified in Task 2 against Critical Habitat criteria (defined below) and thresholds to assess Critical Habitat status for the area of analysis identified in Task 3. ESS6 critical habitat criteria to determine whether critical habitat is present, including:
    - Habitat of significant importance to Critically Endangered or Endangered species;
    - Habitat of significant importance to endemic or restricted-range species;
    - Unique or highly threatened ecosystems;
    - Areas supporting key evolutionary processes or ecosystem services of global or national importance.
- Provide a final listing of biodiversity values, in table format, that qualify as Critical Habitat. This listing must include each biodiversity value (table rows) with minimum details (table columns) on:
    - Key information sources (e.g. IUCN Red List, expert sources, targeted surbey)
    - Criteria and/or thresholds under which the values qualify as Critical Habitat
    - Rationale for qualifying Critical Habitat criteria

Task 5: Impact Assessment

- Assess potential direct, indirect, and cumulative impacts of the project on identified critical habitat values.
- Evaluate impact significance in relation to ESS6 thresholds and conservation objectives.

Task 6: Mitigation and Management Measures

- Identify measures to avoid impacts on critical habitat wherever feasible.

- Where avoidance is not possible, propose minimization and restoration measures, consistent with ESS6.
- Identify conditions under which biodiversity offsets or enhancement measures may be required, if applicable.

Task 7: Linkage to Biodiversity Management Plan (BMP)

- Translate CHA findings into clear inputs for the BMP, including:
    - Biodiversity objectives (e.g., No Net Loss or Net Gain);
    - Priority mitigation and enhancement actions;
    - Monitoring indicators and thresholds;
    - Institutional responsibilities and implementation arrangements;
    - Cost estimates and resourcing requirements.

4. Methodology

The CHA shall be conducted using internationally recognized scientific methods and in line with Good International Industry Practice (GIIP), including:

- Habitat mapping and classification;
- Species surveys appropriate to habitat type;
- Use of IUCN Red List, national conservation listings, and KBA data;
- Stakeholder consultation with relevant authorities, conservation organizations, and local communities where biodiversity-linked livelihoods are present.

5. Stakeholder Engagement

The CHA shall include targeted consultations with:

- Relevant national and local authorities (e.g., forestry, environment, fisheries);
- Conservation organizations and subject-matter experts;
- Local communities, particularly where ecosystem services support livelihoods (e.g., fisheries, river gardening).

Consultation findings shall be documented and reflected in the assessment conclusions.

6. Deliverables

The consultant shall submit the following deliverables:

1. Draft Critical Habitat Assessment Report
2. Final Critical Habitat Assessment Report, incorporating comments from the implementing agency and the Association
3. Spatial data files (maps, GIS layers) supporting the assessment findings

7. Reporting and Review

- The draft CHA report shall be submitted to the PMU/CMUs for review.
- The final CHA report shall be submitted to the Association for review and clearance, as required under the ESCP.
- CHA findings shall be disclosed and integrated into downstream E&S instruments, as appropriate.

8. Qualification of the Consultant

The CHA shall be carried out by qualified biodiversity specialists with:

- Demonstrated experience in critical habitat assessment under World Bank ESS6 or IFC PS6;
- Expertise in aquatic and/or terrestrial ecology relevant to the project context;
- Proven experience in biodiversity surveys, impact assessment, and mitigation planning.

9. Application of CHA Outcomes

The outcomes of the CHA shall directly inform the Biodiversity Management Plan (BMP) objectives, activities, monitoring framework, institutional responsibilities, and cost estimates, in accordance with Appendix A of the World Bank ESS6 Guidance Note. No civil works affecting critical habitat shall proceed without incorporation of CHA recommendations into the BMP and site-specific ESMP.

Annex 4.2 – Do and Don't Practices for Biodiversity Management

1. Purpose

To guide all personnel on responsible behavior to minimize impacts on local biodiversity during project activities.

2. General Principles

- Respect local ecosystems, habitats, and species.
- Follow legal and regulatory requirements for environmental protection.
- Prevent the introduction of invasive species and avoid disturbance of native flora and fauna.
- Report any observed environmental incidents or breaches immediately.

3. Do's

1) **Protect Habitat**
    - Stay within designated construction areas; avoid unnecessary clearing or trampling of vegetation.
    - Follow site-specific boundaries, especially near wetlands, rivers, and forest patches.
    - Maintain natural water flow and avoid altering wetlands or watercourses unless approved mitigation measures are in place.

2) **Wildlife Safety**

- Observe wildlife from a distance; do not feed or attempt to handle animals.
- Avoid disturbing breeding or nesting sites; schedule work to avoid sensitive periods if known.
- Report sightings of endangered or protected species to the PIU/CSC immediately.

3) **Waste Management**
   - Collect, store, and dispose of construction waste as per the Waste Management Plan.
   - Ensure no litter, chemical spills, or hazardous material enters rivers, wetlands, or forested areas.
4) **Plant Conservation**
   - Avoid cutting or removing trees unless specifically approved in the SS-ESMP or C-ESMP.
   - Where vegetation must be removed, follow replanting or compensation measures.
5) **Monitoring & Reporting**
   - Conduct routine inspections of biodiversity mitigation measures.
   - Report any incidents such as wildlife injury, accidental habitat damage, or non-compliance with mitigation measures.
6) **Training & Awareness**
   - Participate in biodiversity and environmental training provided by the Contractor or CSC.
   - Understand local species of concern and habitat importance.

4. Don'ts

1) **Habitat Destruction**
   - Do not clear vegetation, wetlands, or riverbanks outside approved areas.
   - Avoid creating unauthorized access roads or temporary sites in sensitive areas.
2) **Wildlife Disturbance**
   - Do not hunt, capture, trade, or harm wildlife under any circumstances.
   - Avoid loud noise, flashlights, or machinery near sensitive habitats during breeding/migration periods.
3) **Invasive Species**
   - Do not introduce plants, soil, or water from other sites without approval.
   - Clean machinery and vehicles before entering sensitive areas to prevent seed or pest transport.
4) **Pollution**
   - Do not dump chemicals, oils, or construction debris in natural habitats.
   - Avoid contaminating water bodies with concrete, fuels, or other materials.
5) **Unauthorized Actions**
   - Do not ignore mitigation measures outlined in the C-ESMP.

- Do not remove, relocate, or damage signage or barriers meant to protect biodiversity zones.

5. Responsibilities

- **Contractor:** Ensure all staff and subcontractors follow this CoC; implement mitigation measures.
- **Workers:** Follow the Do's and Don'ts; report any incidents.
- **CSC / PIU:** Monitor compliance, provide training, and address violations.
- **PMU:** Enforce accountability, integrate CoC into contracts, and report significant non-compliance to the World Bank.

6. Acknowledgment

All personnel working in biodiversity-sensitive areas must **sign this Code of Conduct prior to commencement of works**. Non-compliance may lead to corrective measures, retraining, or disciplinary action.

Company Name:_____

Project Manager (name and Signature:_____

Date_____

List of Project Staffs and Workers

No.	Name and Surname	Position	Age	Date of Start Working	Date of Acknowledged COC	Remarks
						Finished contract
						Resigned

Annex 5 – Guidance and Template for preparing Cultural Heritage Impact Assessment (CHIA) and Cultural Heritage Management Plan (CHMP)

1. Screening and Justification

The CMU1 (Department of Waterways, DOW), with support from the TA consultant or E&S firm and in coordination with the Department of Heritage (DOH) will screen subprojects to determine if activities may affect the Outstanding Universal Value (OUV) or attributes of the World Heritage Site.

2. Terms of Reference (ToR) Preparation

The TA consultant assists the CMUs in preparing the ToR for the CHIA and CHMP, incorporating requirements from the **UNESCO/ICOMOS 2021 HIA Guidelines**, **World Bank ESS8**, and the **Law on National Heritage No. 11/NA (2021)**. The ToR must cover baseline studies, assessment of impacts on OUV, alternatives analysis, stakeholder engagement, and alignment with the PSMV. The draft ToR is submitted to the World Bank, DPLB, and Department of Heritage for review and clearance.

3. CHIA Preparation and Baseline Assessment

With support from the TA consultant, a qualified heritage team conducts the CHIA following the UNESCO Toolkit's structured steps: understanding context and heritage attributes, identifying and evaluating impacts (direct, indirect, visual, and cumulative), and assessing potential change to OUV. Field surveys, visual simulations, and mapping are used to inform analysis. Alternatives are explored to avoid or minimize negative impacts on tangible and intangible heritage.

4. Preparation of CHMP

The TA consultant assists in developing a CHMP based on the CHIA findings. The CHMP outlines specific mitigation, conservation, monitoring, and management measures to be implemented before, during, and after construction. It includes chance-find procedures, heritage-sensitive construction guidelines, stakeholder responsibilities, and supervision arrangements, fully aligned with the PSMV and national legal requirements.

5. Consultation and Disclosure

The PMU and CMUs, supported by the TA consultant, organizes public consultations with local communities, monks, business owners, and cultural authorities. Draft CHIA and CHMP documents are disclosed in Lao and appropriate local formats. Feedback is documented and addressed in the final versions of the documents, in compliance with ESS8 and national consultation norms.

6. Review and Approval

Final CHIA and CHMP documents are submitted to the World Bank for ESS8 review and to the Department of Heritage and DPLB for national approval. The UNESCO World Heritage Office in Luang Prabang, in coordination with the Department of Heritage, shall be formally consulted, and UNESCO/ICOMOS clearance and monitoring will be required for works located within or affecting the World Heritage property or its buffer zone, in accordance with national regulations and World Heritage procedures.. Once feedback is addressed, written approval from MoICT and a "No Objection" from the World Bank are obtained prior to implementation.

7. Integration into Design and Contracts

The TA consultant supports the CMU1 in incorporating CHMP requirements into engineering designs, bidding documents, and construction contracts. This includes clauses for heritage protection, visual impact minimization, material specifications, work timing, and contractor obligations to follow heritage-sensitive methods.

8. Implementation and Supervision

The PMU, with supervision by the TA consultant and DPLB, ensures that contractors implement all CHMP measures. Regular inspections and compliance checks are carried out. The TA consultant also supports environmental and heritage monitoring and assists in documenting any unexpected finds or incidents affecting cultural assets.

9. Reporting and Adaptive Management

Monitoring results and compliance reports are submitted regularly to the World Bank, MoICT, and DPLB. If unforeseen impacts arise, the CHMP is updated in consultation with stakeholders. Adaptive management measures are implemented as needed to safeguard heritage values.

10. Capacity Building and Sustainability

The TA consultant provides training for contractors, engineers, staff, and local officials on heritage protection and ESS8 requirements. Awareness-raising among the public and affected communities helps promote long-term cultural heritage stewardship beyond the project lifecycle.

Cultural Heritage Impact Assessment (CHIA) and Cultural Heritage Management Plan (CHMP) Template

CULTERAL HERITAGE IMPACT ASSESSMENT (CHIA) TEMPLATE

1. Executive Summary

Guideline: Provide a concise summary of the proposed subproject, its location, potential impacts on cultural heritage (including Outstanding Universal Value), and key recommended mitigation measures. Include a statement on whether the project is likely to adversely affect heritage significance or the World Heritage status. The summary should allow non-technical readers to quickly understand the purpose and findings of the CHIA.

2. Introduction

Guideline: Describe the background and purpose of the CHIA, the context of the subproject within SEADRM II, and the rationale for undertaking the assessment under World Bank ESS8 and Lao national heritage law. Highlight how the subproject relates to national heritage priorities and World Heritage designation.

3. Methodology

Guideline: Outline the methodology used for conducting the CHIA, including site visits, visual and spatial assessments, participatory mapping, heritage attribute analysis, stakeholder consultations, and desk review. Explain how significance and impact were assessed using criteria from the UNESCO CHIA Toolkit and how OUV was integrated into the analysis.

4. Legal and Policy Framework

Guideline: Describe applicable Lao legislation (Law on National Heritage, EIA Decree, PSMV), World Bank ESS8, and relevant UNESCO instruments (Operational Guidelines, CHIA Toolkit). Include any local or customary laws relevant to heritage protection. Describe institutional roles and approval processes.

5. Heritage Context and Baseline

Guideline: Present a detailed description of the heritage values in and around the project area. Include mapping and photographs of physical structures, sacred areas, traditional practices, and visual corridors relevant to OUV. Reference the PSMV zoning plan. Explain the site's historical significance, ongoing use, and community value.

6. Description of the Proposed Subproject

Guideline: Provide technical details of the proposed intervention, including location, design, materials, methods, and construction phasing. Include architectural drawings, 3D simulations,

or profiles if available. Illustrate how the project intersects with or may affect heritage features directly or indirectly.

7. Impact Assessment

Guideline: Identify potential impacts on tangible and intangible heritage, categorized by type (e.g., physical, visual, functional, cultural). Assess their magnitude, likelihood, and potential effect on OUV. Include both adverse and beneficial impacts. Use heritage-specific impact significance criteria and consult the PSMV when evaluating compatibility.

Risk Assessment Matrix Template:

Impact Type	Description of Impact	Likelihood (Low/Med/High)	Magnitude (Low/Med/High)	Significance (Low/Med/High)	Affected Attribute (e.g., OUV, visual, access)	Proposed Mitigation

8. Alternatives Analysis

Guideline: Summarize design or site alternatives considered to avoid or reduce heritage impacts. Discuss why certain options were selected or dismissed. Include heritage-led design adaptations and alignment with UNESCO's avoid-minimize-mitigate approach.

9. Mitigation Measures

Guideline: Recommend specific, actionable mitigation measures to address identified impacts. Measures should be proportionate, technically feasible, culturally appropriate, and coordinated with the CHMP. Include structural, procedural, and institutional mitigation.

10. Stakeholder Engagement

Guideline: Summarize stakeholder engagement activities, including dates, participants, and feedback from consultations with local communities, monks, traditional authorities, and cultural organizations. Identify how concerns were addressed and how culturally inclusive engagement was ensured.

11. Conclusion

Guideline: Provide a reasoned conclusion on whether the proposed project, with mitigation, is compatible with the protection of cultural heritage and does not compromise the World Heritage status. Highlight residual risks and monitoring needs.

References and Annexes

Guideline: List documents, laws, plans, and guidelines referenced. Include maps, drawings, consultation records, and photos in annexes. Provide GIS shapefiles or CAD models if used.

CULTURAL HERITAGE MANAGEMENT PLAN (CHMP) TEMPLATE

1. Introduction

Guideline: Describe the purpose of the CHMP as a safeguard instrument derived from the CHIA. Define the scope, objectives, implementation responsibilities, and link to ESS8 and national law. Clarify how the CHMP fits into the broader ESMP.

2. Heritage Protection Objectives

Guideline: State clear objectives related to the protection of OUV, preservation of heritage integrity, minimization of construction impacts, and community participation. Ensure alignment with PSMV policies and ESS8 outcomes.

3. Mitigation and Management Measures Table

Guideline: Present mitigation actions in a table format. Identify the impact, specific measure, responsible entity, implementation timing, and monitoring indicator. Link each mitigation to a specific risk and impact.

CHMP Mitigation Measures Table Template:

Project-related impacts	Avoidance measures	Minimization	Rehabilitation
Preconstruction Phase			

4. Chance Find Procedure

Guideline: Define step-by-step procedures to follow if unknown cultural objects or sites are discovered during construction. Include stop-work protocols, notification steps to DPLB and MoICT, documentation procedures, and response timelines. Include a flow diagram if useful.

5. Contractor Obligations and Training

Guideline: Specify contractor responsibilities for heritage protection. Include worker induction modules, site orientation sessions, cultural sensitivity briefings, and codes of conduct. Training should be tailored for heritage sensitivity.

6. Monitoring and Supervision Plan

Guideline: Outline how implementation of CHMP will be monitored. Define roles and responsibilities of DOW, supervision consultants, and DPLB. Describe use of checklists, photographic evidence, community monitoring, and audit schedules.

Monitoring Activities	Indicator	Method	Frequency	Responsible Party

7. Reporting Requirements

Guideline: Define schedule and content of monitoring reports. Include requirements for incident reporting, documentation of non-compliance, corrective actions, and disclosure of results to stakeholders. Templates can be annexed.

8. Capacity Building and Awareness

Guideline: Plan for training and awareness sessions for contractors, workers, and local stakeholders. Include frequency, content, target audiences, and collaborating institutions. Encourage youth and local cultural institutions' involvement.

9. Budget and Resources

Guideline: Estimate the cost of CHMP implementation, monitoring, training, and contingency measures. Identify sources of funding and cost-sharing arrangements. Provide line-item breakdowns if feasible

Chance Find Procedures

The proposed sub-projects flood protection measures are not expected to yield archaeological, paleontological or cultural findings of any significance. However, there remains a possibility for (as yet undiscovered) sites of local cultural significance (i.e., sacred sites, cemeteries) and archaeological sites to exist within sub-project areas.

The purpose of the Chance Finds Procedure is to assist in the detection, reporting of, and prevention of disturbance and damage to objects and sites of physical cultural resources, specifically those physical cultural resources unknown prior to the commencement of construction activities. As there remains a possibility for (as yet undiscovered) sites of local cultural significance (i.e., sacred sites, cemeteries) and archaeological sites to exist within the sub-project areas, the DOW will ensure that the bidding and contract documentation will include a clause on chance find procedures and includes the following measures:

i. stop construction activities in the area of the chance find;
ii. delineate the discovered site or area; secure the site to prevent any damage or loss of removable objects;
iii. notify the supervisory Engineer who, in turn, will notify the responsible local authorities;
iv. responsible local authorities would conduct a preliminary evaluation of the findings to be performed by archaeologists who will assess the significance and importance of the findings according to various criteria, including aesthetic, historic, scientific or research, social and economic values;
v. decisions on how to handle the finding shall be taken by the responsible authorities which could result in changes in layout, conservation, preservation, restoration and salvage;
vi. implementation for the management of the finding communicated in writing; and
vii. construction work could resume only after permission is given from the responsible local authority concerning safeguard of the heritage.

The Chance Finds Procedure is applied by the construction contractor consistent with the WB ESS8 and regulatory requirements of Lao PDR. The PMU with support from PIU and CSC will monitor the process of design, implementation, and post project implementation with respect to this chance finds procedure.

The construction contractor will be responsible for ensuring that the construction workforce is watchful in the detection and reporting of, and the prevention of disturbance and damage to, objects and sites of physical cultural resources. This should include stopping work and securing the areas adjacent to the physical cultural resources to prevent damage and notifying the MPWT DOW of the find.

All physical cultural resources items found in the construction areas shall be placed under PMU responsibility and authority in coordination with the Ministry of Information, Culture and Tourism (MoICT). Ownership of any physical cultural resources discovered will be determined by the MoICT.

Annex 6 – Guidance for preparation of Ethnic Group Engagement Plan

Once a subproject has confirmed that there are EGs present in the subproject's area of influence (as confirmed by the screening results obtained from following the screening procedure described in Annex 1. for Presnce of Ethnic Groups in subproject's are), the respective CMUs will do the following:

1) **Make field visit.** The respective CMUs s (through technical support of PTI) will visit the subproject area/study area. In addition to field observation, the respective CMUs will meet with local authorities and interview local people, particularly those who are knowledgeable about EG in the area, such as local leaders at village, commune levels, women's union, farmers' association, to explore if there are EG living in or adjacent to subproject or study area.
2) **Conduct assessment of EG(s).** This would involve examination of all information collected above to confirm if the EGs (as per WB's ESS7) are present in the subproject. The EG(s) under examination should meet all four criteria below to be considered EG as per WB's ESS7:
    a) Self-identification as members of a distinct indigenous social and cultural group and recognition of this identity by others; and
    b) Collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas;
    c) Customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; and
    d) A distinct language or dialect, often different from the official language or languages of the country or region in which they reside.

It is important to note that an EGEP will be prepared regardless of

a) whether the EGs in the subproject area are positively or negatively affected by the subproject;
b) significance of any such impacts, and
c) presence or absence of discernible economic, political or social vulnerabilities of the EGs.

During EG screening process, when in doubt, the respective CMUs should consult with the World Bank's team for advice or guidance.

In Laos, there are 50 ethnic groups categorized into four ethno-linguistic families: Lao-Tai, Mon-Khmer, Hmong-Iew Mien, and Sino-Tibetan. Of these, 32 groups belonging to the last three families (Mon-Khmer, Hmong-Iu Mien, and Sino-Tibetan) are considered Indigenous Peoples under the ESS7, as they meet the above four defined characteristics.

Conducting a targeted Social Assessment

If EGs are present in the subproject area, the respective CMUs will conduct a targeted Social Assessment (SA) with technical assistance from an EG specialized qualified consultant. The breadth, depth, and type of analysis in the targeted SA will be proportional to the nature and scale of the subprojects' potential effects on the EG community. The consultation results, mitigation measures, proposed actions. from targeted SA report will be integrated into site-specific ESMP to inform mitigation measures for affected EG.

The targeted SA will include the following elements as needed:

a) Baseline data collection on the demographic, economic, social, cultural and political characteristics of the affected EG groups, habitats, ancestral territories, or areas of seasonal use and occupation that they have traditionally owned or customarily used or occupied, as well as the land in the project area and the natural resources in these areas on which they depend;

b) Assessment, based on meaningful consultations tailored to the EGs, of the potential adverse and positive effects of the subproject. Special attention is given to analysis of the relative vulnerability of, and risks to, the affected EGs given their distinct circumstances (such as small population which may increase their vulnerability due to limited social network), and their level of dependence on land and natural resources, as well as their potential lack of access to opportunities relative to other social groups in the communities and regions in which they live. The assessment should consider differentiated gender impacts of subproject activities and impacts on potentially disadvantaged or vulnerable groups within the EG community, as well as the preferred grievance redress mechanism that may be preferred as a cultural practice of the affected EG(s);

c) The identification and evaluation of measures necessary to avoid adverse effects, or if such measures are not feasible, the identification of measures to minimize, mitigate, or compensate for such effects, and to ensure that EGs receive project benefits;

d) A description and assessment of the legal and institutional framework applicable to EG communities. Besides describing the legal status of EGs in the country's constitution, legislation (laws, regulations, administrative orders) and customary law, this section should also include an assessment of the ability of the communities to obtain access to and effectively use the country's legal system to defend their rights;

e) A summary of the Stakeholder Engagement Plan, which would include stakeholder analysis and engagement planning, disclosure of information, and meaningful consultations, in a culturally appropriate and gender and inter-generationally inclusive manner. The project's existing SEP would be expected to guide this[7].

f) A summary of meaning consultation results. The consultations should: (i) involve representative bodies and organizations and, where appropriate, other community

members; (ii) provide sufficient time for EGs' decision-making processes; and (iii) allow for the effective participation by EGs in the design of project activities or mitigation measures that could potentially affect them either positively or negatively. Feedback on the project would be gathered through separate group meetings with EGs, vulnerable groups, including their traditional leaders, NGOs, community-based organizations, CSOs and other affected persons. The consultations would also help inform the Social Assessment with regard to demographic data, such as the social and economic situation and impacts (See Annex 4 for suggestive questions that can be used for a targeted Social Assessment).

It is also noted that the targeted SA, among other things, will explore to understand a) how EG currently use water for their crop, b) how they will use water after subproject completion to improve their crop production (e.g. increase from one to two crops per year), increase income and secure their livelihood options. The SA will also explore how EGs coordinate water use among themselves (as an EG community), and coordinate their water use with other ethnic group (e.g. Khmer mainstream group). The SA will also explore potential constraints of the EG as to intended crop intensification, and explore opportunities to engage EG in crop value chain (e.g. rice, select cash crop) to facilitate their interest and plan to enhance crop production and secure stable and better prices for improved crops. These will involve how individual EG farming households organize themselves (with the respective CMUs's support) to improve crop yield and quality and enter to value chain to secure their investment of time, effort, and cost for enhanced crop production. As part of project plan, EGs will be supported in organizing themselves into water user groups to enhance not only water coordination to reliable water access, but also for effective maintenance of irrigation system − through collection of water tariff which will be coordinated by local water user groups. The SA will also screen to know if subproject activities would create any potential adverse impact on the cultural properties of the EG (including tangible and intangible). The targeted SA will be conducted based on the meaningful consultation with affected EG which is grounded on the principle of free, prior and informed consultation. Sufficient information will be provided to potentially affected EG to ensure meaningful consultation. Details about scope, scale, nature of subproject activities, subproject location, and identified E&S risks and impacts associated with proposed investment will be provided to affected EG to ensure their feedback are meaningful.

Prepare an Ethnic Group Engagement Plan

Based on the results of the targeted SA, an Ethnic Group Engagement Plan (EGEP) will be prepared. The EGEP will have the following elements, as needed:

a) A summary of the targeted Social Assessment report, including the applicable legal and institutional framework and baseline data;

b) A summary of sub-project description and its impacts on EGs

c) A summary of results of meaningful consultation tailored to EGs. If the subproject involves any of the three circumstances requiring Free, Prior and Informed Consent (FPIC) under

ESS7 namely: (i) impacts on land and natural resources subject to traditional ownership or customary use; (ii) relocation of ethnic groups from lands or territories they traditionally own, use, or occupy; or (iii) significant impacts on critical cultural heritage essential to the identity or cultural, ceremonial, or spiritual life of the ethnic group the process and outcomes of FPIC consultations will be documented in the EGEP; FPIC is likely required for the work sub-project in Luang Phabang as the World Heritage where there are cultural heritage (segments near Buddhist temples, cultural sensitive areas along the Namkhan river and riverbank). Another meaningful consultation resulting in FPIC will be carried out after project effectiveness when detailed design and scope or corridors of impacts are determined and confirmed. FPIC will be established before the work begins.

d) A framework for meaningful consultation tailored to EGs during subproject implementation;

e) A detailed description of measures to ensure that any potential adverse impacts on the consulted EGs are avoided/minimized and mitigated and that the EGs receive socioeconomic benefits during project implementation that are culturally appropriate to them. Measures will be gender sensitive and include steps for implementation.

f) Arrangements for EGEP implementation with a clear description of roles and responsibilities of relevant stakeholders. This should include measures to strengthen the capacity of local authorities, as needed, as well as the involvement of NGOs or CSOs as necessary;

g) A project's Grievance Redress Mechanism is adapted to ensure it is culturally appropriate and accessible to the affected EGs, taking into account the availability of judicial recourse and customary dispute settlement mechanisms among the EGs. This should be done in consultation with the EG groups present in the subproject area;

h) The cost estimates and financing plan for the EGEP implementation;

i) Mechanisms and benchmarks appropriate for monitoring, evaluation, and reporting on the implementation of the EGEP. Monitoring arrangements should include the following: (i) administrative monitoring to ensure that implementation is on schedule and problems are solved timely; (ii) monitoring of EGEP implementation utilizing the socioeconomic baseline established in the targeted SA report, including ways to consider inputs from the affected EGs in such mechanisms.

Review and Approval of an Ethnic Group Engagement Plan

- Once an EGEP for a subproject is completed by the respective CMUs, the EGEP needs to be submitted to the World Bank (as part of a) subproject ESMP or Feasibility Study/Master Plan/ Technical Studies) for prior review and approval prior to implementation. The respective CMUs will disclose the approved EGEP locally at the village halls located in the subproject area and/or study area. The same version will be disclosed on the respective CMUs' website.

Annex 7 – Environmental and Social Code of Practices (ESCOP)

(For small renovation civil works: minor office renovations, Hydromet station/equipment installation and etc.)

Subproject Information

Item	Description
Subproject Title	
Subproject Location	
CMU in Charge	
Estimated Cost	
Proposed Start/Completion Date	
Brief Description of Subproject	

A. Purpose and Applicability

This ESCOP sets out standard measures to manage Environmental and Social (E&S) risks and impacts from **small-scale renovation civil works** financed under SEADRM II, including:

- Office renovation, facility repair, or installation of Hydromet stations, sensors, ICT, and solar power systems.

It consider requirements under the **World Bank Environmental and Social Framework (ESS1–ESS10)**, **Lao environmental regulations** (EPL 2024, EIA Decree No. 003/GoL 2022), the **Heritage Law (2011)**, **UXO safety procedures (NRA)**, and other applicable **requirements** where relevant. It serves as a **simplified ESMP** to be included in all bidding and contract documents and applied by **Contractors and service providers.**

B. Environmental and Social Code of Practices

1. ***ESCOP 1 – ESS1: Assessment and Management of Environmental and Social Risks and Impacts***

Objective: Ensure that E&S risks and impacts are well considered and mitigated for the proposed renovation civil work.

Measures

- Conduct environmental and social due diligence for the proposed subproject/activity.
- Integrate E&S standard mitigation measures into the work's design and contractor's contracts.
- Assign E&S focal points and provide training at PIU and contractor levels on E&S risk management requirement.
- Monitor and document implementation through regular supervision and reporting.

2. ***ESCOP 2 – ESS2: Labor and Working Conditions***

Objective: Protect workers' rights, health, and safety.

Measures

- All workers receive written contracts under Lao Labor Law.
- Prohibit child labor (<18 years) and forced labor.
- Provide PPE (helmets, gloves, boots, masks, lifejackets if near water).
- Conduct daily toolbox meetings and safety induction.
- Provide safe drinking water, sanitation, and first-aid kits.
- Ensure compliance with CoC (Appendix 1), all project policies, and national laws.
- Maintain accident logbook and report severe incidents immediately.
- Operate Worker GRM; handle SEA/SH and VAC complaints confidentially.
- Include gender equality and non-discrimination in hiring.

Appendix 1: Worker's Code of Conduct (CoC)

1. Code of Conduct (COC) related to Environmental, Social, Health and Safety (ESHS), Sexual Exploitation and Abuse (SEA) / Sexual Harassment (SH) and Violence Against Children (VAC)

2. Code of Conduct for working respectfully with local Ethnic Communities.

This Code of Conduct shall be included in all Bidding Documents (BD) and Contract Documents (CD) for works, service, and consultancy contracts under the project. Compliance with this CoC is mandatory for all contractors or service providers' staffs and workers engaged under the project.

A1.1 Code of Conduct related to ESHS, SEA/SH, and VAC

This CoC must be read, acknowledged, and signed by all individuals working under the project.

We, _____(company name)_and all our staffs and workers engaged under _____(contract name)_____, acknowledge that compliance with Environmental, Social, Health and Safety (ESHS) standards, Occupational Health and Safety (OHS) requirements, and prevention of Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), and Violence Against Children (VAC) is mandatory.

We understand that any breach constitutes gross misconduct and may result in sanctions, including dismissal, referral to law enforcement, and legal prosecution under national law.

While working on the project, We will:

- Carry out my duties competently, diligently, and respectfully.
- Comply with this CoC, all project policies, and national laws.
- Maintain a safe workplace, use PPE, and follow emergency procedures.

- Refrain from any act of SEA/SH or VAC, including verbal, physical, digital, or exploitative behavior.
- Respect women, men, children, elders, and people with disabilities regardless of ethnicity, religion, language, or socioeconomic status.
- Not engage in prostitution, transactional sex, or relationships involving work-related favors.
- Not engage in sexual activity with children under 18 years of age (mistaken belief of age or consent is not a defense).
- Not use abusive, inappropriate, or discriminatory language or gestures towards colleagues or community members.
- Refrain from alcohol or drug abuse during work and project-related activities.
- Report immediately through the Grievance Redress Mechanism (GRM) or supervisor any suspected or actual SEA/SH or VAC incidents, whether by PMU/PIU staff, consultants, contractors, or other workers.
- Attend mandatory training on ESHS, OHS, SEA/SH, VAC prevention, and cultural sensitivity.

With respect to children, We will:

- Never hire children (under 18) for project activities.
- Prevent children from entering construction sites or hazardous work areas.
- Not photograph, film, or share images of children without informed consent of parents/guardians and approval by project management.
- Present children in media respectfully and never in ways that are sexually suggestive or degrading.
- Not use digital tools or devices to exploit or harass children.
- Avoid any form of corporal punishment or discipline of children.
- Sanctions for Non-Compliance:
- Informal or formal warning.
- Additional training.
- Suspension or termination of employment/contract.
- Referral to Police and prosecution under national law.

1.2 Code of Conduct for Working with Local Ethnic Communities

This CoC applies to all PMU staff, PIU staff, consultants, contractors, and workers who interact with ethnic communities.

We agree to:

- Respect the identity, dignity, culture, language, and traditions of ethnic groups.
- Avoid any action that undermines cultural practices, livelihoods, or natural resource use.

- Communicate in ways that are culturally appropriate, inclusive, and respectful.
- Ensure participation of ethnic groups in project consultations and activities is free of coercion or intimidation.
- Not discriminate against ethnic groups in hiring, work allocation, or project benefits.
- Promote equitable access for ethnic women, youth, elders, and vulnerable households to project benefits (training, services, facilities).
- Report any incident of disrespect, discrimination, or abuse towards ethnic community members by any project staff or workers.
- Implementation and Enforcement
- This CoC is a mandatory part of all BD and CD, and must be signed by all workers before commencing work.
- PMU and PIU shall ensure contractors, consultants, and sub-contractors incorporate this CoC into contracts and enforce compliance.
- Breaches of this CoC shall be addressed through disciplinary action, termination of contracts, and, where applicable, referral to law enforcement authorities.
- Training on CoC obligations, SEA/SH and VAC prevention, OHS, and ethnic group sensitivity shall be provided regularly to all project staff and workers.

List of Project Staffs and Workers

No.	Name and Surname	Position	Age	Date of Start Working	Date of Acknowledged	Remarks
						Finished contract
						Resigned

3. ESCOP 3 – ESS3: Resource Efficiency and Pollution Prevention and Management

Objective: To prevent pollution, use resources efficiently, and manage all types of waste—including construction debris, wastewater, air emissions, noise, and electronic waste (e-waste)—in line also with Lao PDR environmental laws, the EIA Decree No. 003/GoL (2022), the Environmental Protection Law (2024).

❖ **General Resource Efficiency and Pollution Control**

➢ **Solid Waste Management**

- Apply the 3R principle (Reduce, Reuse, Recycle).
- Provide labeled bins for general, recyclable, and hazardous waste.
- Collect and store waste daily in covered containers; no open dumping or burning.
- Dispose of waste only at approved municipal sites or through licensed operators.
- Segregate renovation debris (cement, bricks, tiles, wood) and reuse where feasible.
- Maintain housekeeping and remove litter around worksites, offices, and storage areas.

➢ **Water Pollution and Wastewater Management**

- Prevent discharge of cement slurry, paint, oil, or chemicals into drains, canals, or rivers.
- Provide temporary silt traps or sedimentation pits where runoff occurs.
- Store fuels and lubricants ≥ 30 m from water bodies; provide secondary containment.
- Wash equipment only in designated areas with sediment capture.
- For offices and staff areas, ensure sanitation and septic systems are functional and non-leaking.

➢ **Air Quality and Dust Control**

- Wet down dusty surfaces and material piles during excavation or repair.
- Cover trucks and stockpiles during transport or storage.
- Maintain vehicles and machinery regularly to prevent black smoke; avoid idling.
- Provide masks to workers and restrict public access during dusty work.

➢ **Noise and Vibration Control**

- Use quiet, well-maintained equipment; lubricate and service regularly.
- Limit noisy work to daytime hours (07:00–17:00); avoid night works near houses, schools, or hospitals.
- Install temporary barriers or partitions where needed.
- Notify neighbors in advance of any unavoidable high-noise activity.
- Provide hearing protection to exposed workers.

❖ **Electronic Waste Management Procedure**

The **E-Waste Management Procedure (EWP)** applies to all ICT and Hydromet devices, including laptops, servers, routers, sensors, batteries, UPS, cameras, and solar controllers.
Improper handling may cause contamination, fires, GHG emissions, or data breaches.

Step 1 – Awareness & Training

- Train PMU, CMU, PIU, CSC, and contractor staff on e-waste handling, PPE, and data security.
- Conduct community awareness if local residents are exposed to e-waste storage or transport.

Step 2 – Procurement & Contracting

- Include eco-design, energy-efficiency, and take-back clauses in all ICT/Hydromet supply contracts.

- Require suppliers to demonstrate compliance with hazardous-substance restrictions and safe disposal plans.

Step 3 – Inventory & Tracking

- PMU maintains a Project e-waste registry**;** PIUs/CMUs maintain local inventories.
- Record equipment ID, serial number, usage, and end-of-life status; cross-check annually.

Step 4 – Secure Data Removal

- Permanently erase or destroy data on devices before disposal.
- Data wiping carried out by authorized IT staff or certified recyclers with written certification.

Step 5 – Collection & Temporary Storage

- Designate clean, dry, ventilated, and locked storage rooms.
- Separate e-waste from general waste; use fireproof containers for lithium batteries.
- No informal dismantling or scavenging permitted.

Step 6 – Transport & Recycling/Disposal

- Only licensed hazardous-waste operators (e.g., **Savan EMC Company Limited – SEMC**) may collect or transport.
- Transport under valid permits following **Basel Convention** standards.
- Contractors are strictly prohibited from resale or informal disposal.

Step 7 – Final Disposal

- Prioritize recycling and recovery of usable components.
- Non-recyclable waste disposed through SEMC's cement-kiln co-processing or secure landfill**.**
- PIUs and PMU retain official disposal certificates.

Step 8 – Monitoring & Reporting

- Contractors record monthly e-waste handling and storage conditions.
- PIUs submit quarterly summaries; PMU consolidates and reports bi-annually to the World Bank.
- External audits verify compliance and propose improvements.

Appendix 1 - Inventory Register and Tracking Use of the ICT Equipment

Based on the above guidelines, develop and maintain Inventory Register and Tracking Use of the ICT Equipment with the following general content:

Name ICT Equipment (below example)	**Model**	**Serial Number**	**Ownership or Leasing?**	**Assigned User**	**Location**	**Maintenance History**	**Warranty**
Laptops / Desktops							
Tablets							
Printers / Scanners / Copiers							
Projectors / Monitors / Screens							
Hydromet Sensors & ICT Devices (e.g., early warning equipment, communication radios)							
UPS / Power Supply Units / Transformers							
Audio-Visual Equipment (Speakers, Video Conferencing Units, etc.)							
Others							

Appendix 2 - Inventory List and Description of E-Waste

E-Waste Description (below example)	Anticipated Quantity	Potential Hazards	Temporary Storage	Transport	Reuse	Recycling Company	Final Waste Destination
Laptops / Desktops							
Tablets							
Printers / Scanners / Copiers							
Projectors / Monitors / Screens							
Hydromet Sensors & ICT Devices (e.g., early warning equipment, communication radios)							
UPS / Power Supply Units / Transformers							
Audio-Visual Equipment (Speakers, Video Conferencing Units, etc.)							
Others							

4. ESCOP 4 – ESS4: Community Health and Safety & Traffic Management

Objective: Prevent accidents and health risks to communities and road users near the work's areas include the Hydromet sites.

Do's

- Follow Lao Traffic Law; use licensed, trained drivers.
- Limit speed to 20 km/h near schools, markets, and villages.
- Provide warning signs, cones, barriers, and flaggers at active zones.
- Schedule deliveries off-peak; maintain access to houses, schools, temples.
- Keep safe walkways; fence open trenches and equipment areas.
- Maintain clean sites and hygiene facilities.
- Keep first-aid kits, extinguishers, and emergency contacts visible.
- Inform communities of schedules and restrictions; post GRM contacts.

Don'ts

- Don't block roads or school entrances.
- Don't allow children or villagers inside work zones.
- Don't drive fast or use mobile phones while driving.
- Don't leave pits open or waste scattered.
- Don't work at night near houses or temples without permission.

5. ESCOP 5 – ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Objective: Avoid or minimize land impacts; ensure fair, voluntary, and documented land use.

Measures

- Avoid involuntary land acquisition where possible.
- If land needed temporarily, sign consent agreements; restore land after use.
- If permanent land acquisition, prepare RAP/ARAP under RPF; compensate at replacement cost.
- Apply **Voluntary Land Donation (VLD)** only when:
    - Fully informed and voluntary (written consent, right to refuse).
    - No displacement or livelihood loss.
    - Benefits accrue to donor communities.
    - Donation recorded and witnessed by local authority and PIU.

6. ESCOP 6 – ESS6: Biodiversity and Wildlife Protection

Objective: Protect habitats, plants, and animals during small civil works.

Do's

- Stay within approved boundaries; avoid unnecessary clearing.
- Maintain natural water flow; don't block streams or wetlands.
- Observe wildlife from a distance; report sightings of protected species.
- Dispose of waste properly; prevent fuel/chemical runoff.
- Cut trees only if approved and replant after works.
- Join biodiversity awareness training and follow site rules.

Don'ts

- Don't hunt, trap, buy, sell, or eat wildlife.
- Don't collect timber, firewood, or plants from nearby forests.
- Don't clear vegetation or create new access roads outside approved areas.
- Don't dump soil, concrete, or oil into rivers/wetlands.
- Don't remove signs/barriers protecting sensitive zones.

7. ESCOP 7 – ESS7: Ethnic Groups

Objective: Respect and engage Ethnic Groups meaningfully and ensure culturally appropriate benefits.

Measures

- Conduct Ethnic Group screening during subproject identification.
- If EGs present, prepare EGEP; apply FPIC for activities affecting their land/resources.
- Use interpreters and culturally suitable methods during consultations.
- Respect customs, ceremonies, and decision-making structures.
- Employ local EG members where feasible.
- Include women, elders, and youth in consultations.
- Follow CoC for working respectfully with ethnic communities.

8. ESCOP 8 – ESS8: Cultural Heritage and Natural Resource Protection

Objective: Protect tangible and intangible heritage and prevent illegal resource use.

Measures

- Stop work and notify authorities for any Chance Finds.
- Respect rituals and local festivals; coordinate work timing.
- **Zero tolerance** for wildlife trade/consumption and illegal timber use.

- Source all wood or bamboo legally; keep invoices/proof of origin.
- Display signs prohibiting hunting, logging, and wildlife purchase/consumption.
- Train workers on cultural respect and resource protection.
- Violations lead to removal and legal reporting.

9. ***ESCOP 9 – ESS10: Stakeholder Engagement and Grievance Redress Mechanism***

Objective: Ensure information disclosure, participation, and transparent complaint handling.

Measures

- Inform nearby communities of work schedule, risks, and mitigation.
- Display contact information for PIU and PMU at all sites.
- Provide multiple GRM channels (in-person, phone, box, hotline).
- Ensure SEA/SH-sensitive referral via Lao Women's Union (1362) or Mahosot Hospital (1527).
- Log and resolve grievances within 15 days; escalate unresolved cases to PMU.
- Include women, EGs, and vulnerable groups in engagement activities.

D. Roles and Responsibilities

- **Contractors:** implement ESCOP, maintain OHS, waste, and incident logs.
- **CSC/Supervision Consultant:** verify field compliance and report to PIU.
- **PIUs/CMUs:** maintain records (UXO, waste, E&S incidents), integrate ESCOP into site supervision.
- **PMU:** consolidate and report implementation to the World Bank; ensure ESCP capacity actions (recruiting E&S consultants if required).
- **NRA:** certify UXO clearance before works begin.
- **Licensed Recycler (SEMC):** collect, transport, and dispose e-waste per Annex 6.2.

E. Monitoring and Reporting

Field compliance is monitored monthly by SESSC/ESSC using the ESCOP Monitoring Form.
Key focus areas: UXO clearance, waste and e-waste handling, OHS, CHS, biodiversity, heritage protection, SEA/SH prevention, and GRM operation.
Findings are summarized quarterly to the PMU and reported bi-annually to the World Bank.

Quarterly ESCOP Monitoring Form

Monitored by: SESC / ESC
Date: _____
Subproject: _____**Component:** _____

ESCOP Monitoring Activities and Parameters

Subproject Issue	Parameter to be Monitored	Key Measures / Management Actions	Result / Status	Remarks / Corrective Action
ESS1 – E&S Management	Availability of site-specific ESMP/ESCOP; E&S focal points assigned	• Due diligence conducted; ESCOP updated and implemented. • ESS Coordinator and contractor ESHS staff appointed and trained. • Monitoring reports submitted monthly/quarterly.		
ESS2 – Labor & Working Conditions	Worker contracts, PPE use, OHS training, GRM records	• All workers have written contracts; no child/forced labor. • PPE (helmet, boots, gloves, lifejackets if near water). • Daily toolbox meetings; first-aid kits and logs maintained. • Worker GRM active; incidents reported within 48 h.		
ESS3 – Resource Efficiency & Pollution Control	Waste segregation, fuel/chemical storage, e-waste handling	• 3R principle implemented (Reduce, Reuse, Recycle). • Waste bins labeled (general/recyclable/hazardous/e-waste). • No open burning or discharge to water bodies. • E-waste managed as per E-waste management procedure.		
ESS4 – Community Health & Safety (CHS) & Traffic Management	Traffic control, fencing, signage, community access	• Speed ≤ 20 km/h near villages/schools/markets. • Warning signs, cones, and barriers installed. • Safe pedestrian routes and detours provided. • Access to water for bathing/fishing maintained or alternative provided. • First-aid and fire kits on site; accidents reported within 48h.		
ESS5 – Land Use / Voluntary Donation	Land access and agreements	• No involuntary land acquisition. • If VLD applied → written consent and record with local authority.		

Subproject Issue	Parameter to be Monitored	Key Measures / Management Actions	Result / Status	Remarks / Corrective Action
		• Temporary land use agreements signed; land restored post-use.		
ESS6 – Biodiversity & Wildlife Protection	Vegetation clearance, wildlife observation, pollution prevention	• No work in critical habitats. • Stay within approved boundaries; avoid unnecessary clearing. • No hunting, logging, or wildlife consumption. • Waste/fuel not discharged near rivers or wetlands. • Replant vegetation where removed.		
ESS7 – Ethnic Group Engagement	Presence of EGs, culturally appropriate consultation	• EG screening completed; EGEP implemented if applicable. • Interpreters used where needed; meetings in local language. • Respect traditional customs and cultural spaces. • Include women, youth, and elders in consultations.		
ESS8 – Cultural Heritage & Natural Resource Protection	Chance finds, heritage proximity, illegal resource use	• Workers trained on Chance-Find Procedure; stop-work logs kept. • Coordination with DOH/UNESCO where required. • Zero tolerance for wildlife trade and illegal timber.		
ESS10 – Stakeholder Engagement & GRM	Community awareness, signage, grievance handling	• Communities informed of work schedule and access changes. • GRM posters displayed at site (PIU/PMU contacts). • SEA/SH referral pathways visible (LWU 1362 / Mahosot 1527). • Complaints logged and resolved within 15 days.		
UXO Safety	Consultation and clearance certificate	• Consultation with local authority/NRA. • UXO risk verified; clearance certificate on file. • No work until site declared safe.		

SESC / ESC Signature: _____Date:_____

Contractor / Site Representative: _____Date:_____

Annex 8 – Labor Management Procedures

(See stand–alone file)

Annex 9 – Resettlement Policy Framework

(See stand–alone file)

Annex 10– Report Templates

Annex 10A – Bi-Annual Report Template

TABLE OF CONTENT

ABBREVIATIONS AND ACRONYMS

EXECUTIVE SUMMARY

- Brief summary of key project activities during the period
- Overall environmental and social (E&S) compliance status

Subproject/ESS	1	2	3	4	5	6	7	8	10	Key comments
1. LNT										For Orange and red
2. ODX										
3. LPB										
4. VTE										
5. BKX										

- Summary of major risks/issues, corrective actions taken
- Summary of stakeholder engagement and grievance redress performance
- Key lessons learned and next steps

1. Project Overview

- **Project Objectives**: Improve grid efficiency, reduce power losses, and enhance financial systems
- **Scope during this period**: Works conducted in 5 province
- **Civil Works Progress Summary (5 provinces). This table presents the status of key construction activities across all subprojects as of the reporting period.**

Province	Progress (%)	Description	Comments
LNT			
ODX			
LPB			
VTE			
BKX			

- **E&S Instruments Applied**: SS-ESMPs, LMP, SEP, and ESCP
- **Implementation Arrangements**: PMU (lead), CMU, PIU and CSC (daily supervision), Contractors
- **Monitoring Methodology**: Daily (Contractor), Weekly (CSC/PIU), Quarterly and Bi-Annual (PMU)

2. Status of Agreed Actions

- **Update the status of WB or external monitoring's agreed actions.**

3. ESCP Implementation Status

ESCP Actions/Measures	Responsible	Status	Remarks
Implementation Arrangement and capacity support: • PMU Established, E&S Staff appointed, E&S consultant recruited • Training on ESCP, ESMP, LMP…	**PMU**	Completed	76 staff trained
Monitoring and Reporting: • Bi-Annual Report	PMU	This report	To be submitted to WB
ESS1:…. •			
ESS2:….. •			

4. Implementation of E&S Risk Management Measures (Across 5 provinces)

Table 4-1 Implementation of E&S Measures

ESS	Key Risks / Impacts	Mitigation Actions	Compliance Status	Province
ESS1: Assessment and Management of Environmental and Social Risks and Impacts			✅ Compliance	
ESS2: Labor and Working Conditions			☒ Need Improvement	
ESS3: Resource Efficiency and Pollution Prevention and Management			❌ Non-Compliance	
ESS4: Community Health and Safety			✅ Compliance	
ESS5: Land Acquisition, Restrictions on Land Use And Involuntary Resettlement				
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources				
ESS7: Indigenous Peoples / Ethnic Groups			✅ Compliance	
ESS8: ESS8: Cultural Heritage				
ESS10: Stakeholder Engagement and Information Disclosure			✅ Compliance	

5. Compliance Monitoring Summary

- **Frequency**: Daily (Contractor), Weekly (CSC/PIU), Quarterly/Bi-Annual (PMU)
- **Tools Used**: Site checklists, supervision logs, consultation minutes, photo documentation

- **Findings**:
    - 3 provinces fully compliant
    - 2Provinces had minor non-compliance (waste, signage, PPE)
- **Corrective Actions Taken**: Spot training, material delivery, supervisor warnings

6. Stakeholder Engagement and Information Disclosure

Table 6-1 of Stakeholder Engagement Summary (All Subprojects)

Province	Consultation Date(s)	Participants(Total / % Female / Ethnic)	Key Issues Raised	Response / Action Taken	Information Disclosure	GRM Availability
LNT						☑
ODX						☑
LPB						☑
VTE						☑
BKX						☑

Legend:

- **GRM Availability**: ☑ = GRM box installed and functional
- **Ethnic** = Presence of ethnic group representation
- All consultations were documented with minutes and photos (refer to Annex ….)

7. Grievance Redress Mechanism (GRM) Monitoring

Province	GRM Cases	Resolved	Pending	SEA/SH	Summary of Feedback
LNT					
ODX					
LPB					
VTE					
BKX					

- **SEA/SH Handling**: No cases reported. All workers signed COC.
- **Confidentiality Maintained**: No identifying data stored
- All GRM Logs are Annex ….

8. Accidents and Incidents Reporting

Subproject	Emergency Training/Drill?	Total	Injury	Fatal	Corrective Actions
LNT	**Yes/No (when?)**				
ODX					
LPB					

Subproject	Emergency Training/Drill?	Total	Injury	Fatal	Corrective Actions
VTE					
BKX					

9. Capacity Building and Training

Table 6-1. List of Training/Capacity Building

Province	Date	Topic	Participants		Trainer
			Total	Female	
LNT		What and to who?			
ODX					
LPB					
VTE					
BKX					

10. Recommendations and Next Steps

Recommendations:

Next Six Months Work Plan

No.	Actions	ESS Ref.	Timeline	Remarks

Annexes

- Annex 1: ESCP Action Tracking Table
- Annex 2: Training Attendance Sheets and Photos
- Annex 3: GRM Logbooks (Summary and Detail)
- Annex 4: Site Monitoring Photos and Checklists
- Annex 5: Consultation Records and Feedback Summaries
- Annex 6: Incident Report Forms
- Annex 7: Environmental Monitoring Checklists per Subproject

Annex 10B – Monthly Progress Report – SEADRM II (Subproject-Level)

Subproject Name:

Reporting Month:

Report Date:

1. **Introduction**
   - **Report Period:** [Insert Month/Year]
   - **Project Background:** Brief description of the subproject objectives, scope, and key components

2. **Subproject Overview**
   - Overview of key activities carried out during the reporting period

Works	Progress (%)	Key Achievements	Key E&S Observations / Issues
…	…	…	…

3. **E&S Instruments Applied**
   - SS-ESMP, C-ESMP, LMP, SEP, ESCP, (as applicable)
   - Status of preparation, disclosure, and implementation
   - Roles and responsibilities:
     - **PMU:** Overall supervision, consolidation, and reporting to WB
     - **PIU:** Subproject-level implementation support, quarterly monitoring reports
     - **CSC:** Site supervision, technical support, weekly monitoring, verification of contractor compliance
     - **Contractors:** Daily monitoring of works, adherence to C-ESMP, reporting of incidents, GRM handling

4. **Status of Agreed Actions**
   - **Update the status of WB or external monitoring's agreed actions.**

5. **Implementation of E&S Risk Management Measures**
   - Overall E&S compliance status (summary of ESS compliance: compliant / partially compliant / non-compliant)
   - Major risks/issues and corrective actions

ESS	Key Risks / Impacts	Mitigation Measures	Compliance Status	Responsible Party
ESS1	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS2	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS3	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS4	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS5	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS6	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS7	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor

ESS8	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor
ESS10	…	…	✅ / ☒ / ❌	PIU / CSC / Contractor

Compliance ratings are based on combined monitoring by Contractor, CSC, and PIU; PMU consolidates monthly reports for WB

6. Stakeholder Engagement Summary

- Number of consultations: …
- Participants: total … / female … / ethnic groups …
- Key issues raised and actions taken
- GRM functioning (summary of cases received, resolved, pending, SEA/SH if any)

7. Accidents and Incidents

- Summary of incidents or accidents reported this month
- Number of injuries, fatalities (if any)
- Corrective actions taken
- Reference to **ESIRT forms** for full details
- **Responsibility:**
    - **Contractors:** Immediate reporting and initial investigation
    - **CSC / PIU:** Verification and technical review
    - **PMU:** Consolidation and reporting to WB

8. Capacity Building / Training

- Trainings conducted (type, participants, key topics)
- Lessons learned / follow-up actions

9. Recommendations and Next Steps

- Short summary of actions to be taken in the next month
- Key follow-ups for E&S compliance, GRM, or stakeholder engagement

10. Annexes (as relevant)

1. Training attendance sheets and photos
2. GRM log summary
3. Site monitoring photos and checklists
4. Consultation records and feedback summaries
5. Incident report forms