



# Concept Environmental and Social Review Summary

## Concept Stage

### **(ESRS Concept Stage)**

Date Prepared/Updated: 05/23/2023 | Report No: ESRSC03570

**BASIC INFORMATION****A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Lao People's Democratic Republic	EAST ASIA AND PACIFIC	P179284	
Project Name	Lao PDR Climate Resilient Road Connectivity Improvement Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Transport	Investment Project Financing	3/20/2024	8/29/2024
Borrower(s)	Implementing Agency(ies)		
	Ministry of Public Works and Transports		

**Proposed Development Objective**

To improve climate resilient road access in targeted provinces, enhance capacity to manage road network, and in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

Financing (in USD Million)	Amount
Total Project Cost	35.00

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The proposed project aims to improve climate resilient road access in targeted provinces, enhance capacity to manage road network, and in case of an Eligible Crisis or Emergency, respond promptly and effectively to it. The project will improve about 300 km of district roads and rural roads in poor districts of Khammouan, Savannakhet, and Saravan provinces. The Ministry of Public Works and Transport (MPWT) in consultation with the Department of Public Works and Transport (DPWT) of these three provinces had identified a long list of proposed roads. About 100 km of roads in each of the provinces will be selected from the roads in this longlist through a prioritization exercise based on aspects which include: (i) passing through a poor district – based on poverty head count, (ii) criticality of the link for



climate resiliency of the network, (iii) connectivity to agricultural areas, (iv) population served by the road, (v) traffic level, (vi) not passing through environmentally sensitive areas, and (vii) no resettlement of more than 200 people (or 40 households) and/or more than 40 households severely affected with 10 percent of productive assets owned by individual household lost in all three target provinces. The proposed project provides connectivity to National Roads and access to the east west economic corridor between Vietnam and Thailand thus increasing market linkages and contribute towards greater economic gains to the local communities.

Due to government's funding constraints, most of available funds are channeled to the National Roads network that limits maintenance of the secondary and tertiary networks which primarily serve the rural population and agricultural areas. The tertiary network of District Roads and Rural roads are extremely vulnerable to climate risks and has (i) most of its cross-drainage structures in dilapidated condition, (ii) very few culverts, (iii) no longitudinal drainage facilities, and (iv) no adequate embankments. Only about 5.6 percent of them is paved, and rest is either gravel surfaced or earthen. 40 percent of these roads are inaccessible for over six months in a year, and during extreme climate events. More than 40 percent of villages are 6 km or more from the main road and nearly half are not accessible during the rainy seasons. High transport and logistic costs constrain agricultural growth and integration into growing urban markets within the country and into the regional export markets.

The proposed project will have the following components as detailed below.

**Component 1: Climate Resilient Road Access (Total: US\$51 million; IDA: US\$50 million, Government of Lao PDR: US\$1million):** The project will support (i) improvement of about 300 km of District Roads and Rural Roads in the provinces of Khammouan, Savannakhet, and Saravan to the standards of Class V/VI roads as per MPWT's Road Design Manual, (ii) construction supervision, (iii) financial audit, (iv) technical, environmental, and social audit, (v) road safety audit, (vi) road user satisfaction surveys, (vii) incremental operating costs, and (viii) land acquisition, resettlement, and rehabilitation which will be fully funded by the Government of Lao PDR.

**Component 2: Institutional Development (Total: US\$2million; IDA: US\$2 million):** This component will support MPWT in (i) capacity building of local contractors in the areas of Output and Performance-based Road Contracts, climate resilience, road safety, and environmental and social risk management, (ii) capacity building of MPWT and DPWTs in climate resilient road network planning and prioritization, and (iii) training of MPWT and DPWT staff.

**Component 3: Contingent Emergency Response Component (Total: US\$0 million; IDA: US\$0 million):** This component will support MPWT in case of an Eligible Crisis or Emergency in responding promptly and effectively to it as per the Contingent Emergency Response Manual.

The proposed project will adopt the design standards specified in MPWT's Road Design Manual and address climate risks. The Road Design Class is V/VI depending upon the traffic volume in the design year i.e., 100 – 300 passenger car units per day roads as Class V and 50 – 100 passenger car units per day roads as Class VI. The project roads are expected to be in flat or rolling terrain and therefore their geometric design will be for a design speed of 60 kmph (flat terrain) or 40 kmph (rolling terrain). The cross-sectional parameters will be 2 lanes of 2.75 m width and 0.75 m wide shoulders on both sides for roads designed for Road Design Class V. For Road Design Class VI, the cross-sectional parameters will be one lane of 3.5 m width and 1.5 m wide unpaved shoulders on both sides. The pavements will mostly have Double Bituminous Surface Treatment surfacing except for few stretches which will be laid with a concrete pavement. Many of the cross-drainage structures may need to be replaced with newly constructed concrete



bridges or box culverts as the existing structures are in dilapidated condition. The project roads will not have major realignments and generally follow the existing alignments.

The risks and impacts of climate change will be identified, and mitigation measures will be incorporated during the project design through infrastructure design and material choices, and through management. These will include use of improved asphalt mixtures, determination of the flood line to account for climate change and to inform the Finished Road Level of the pavement as well as the soffits of the bridge decks to reduce inundation and severe flooding of low-lying infrastructure. The subgrade of the pavement will be at least 0.5 m above the High Flood Level at the location. Pipe culverts and box culverts less than 10 m span will be designed for a 25-year flood frequency and box culverts more than 10 m span and short bridges will be designed for a 50-year flood frequency. The surface drainage system will also include side ditches, cut-off ditches to prevent erosion of embankments, and toe ditches. Bio-engineering measures such as top soiling and grassing will be used to arrest erosion of slopes of high embankments and steep cuts. Specific measures linked to operational changes may include shortening maintenance periods to accommodate changes in precipitation and temperature, increasing monitoring frequencies to ensure structures are enduring climate change pressures, monitoring the deformations of the pavement layers, monitoring the bridge structures, increasing financial and technical resources for more frequent maintenance and repairs.

The project will undertake consultations with the key stakeholders including local communities, women, and road users during road design and implementation, and in the planning of other ancillary community infrastructure improvements. The project will explore opportunities to increase women's employment primarily through engagement of women in road construction and maintenance activities. The proposed road improvement activities will have low impact on Green House Gas emissions due to reasons that the proposed project roads have very low traffic volumes, and the proposed roads are also used for non-motorized transport by the rural population.

#### **D. Environmental and Social Overview**

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The central and southern part of Lao PDR where the three project target provinces (Khammouan, Savannakhet and Saravan) are situated is characterized by tropical monsoon climate in the east and tropical savanna climate in west. There are two distinct seasons: the rainy season or monsoon, from May to mid-October and the dry season from mid-October to April.

Lao PDR is highly vulnerable to climate change risks. From 1970 to 2010, 33 natural hazard events (mostly floods and droughts) affected almost the entire population in the country causing economic damages of over US\$400 million. The annual expected losses from climate events range between 3 to 4 percent of GDP. Much of Khammouan and parts of other two provinces are characterized by mountains. The western part of these provinces form catchment of the Mekong River and its tributaries and the road network are highly prone to flooding.

Only about 5.6 percent of the tertiary network of District roads and Rural roads in Lao PDR are paved roads. Forty percent of the unpaved roads are extremely vulnerable to climate risks, and inaccessible for over six months in a year and during extreme climate events. Many villages are far from the main roads and are not accessible during the rainy seasons. In 2019, heavy rains caused floods in the southern provinces (Saravan Province worst affected) and have



impacted 580,000 people and caused damages of about USD50 million including many roads and bridges. Floods in 52 villages of Savannakhet Province in October 2020 affected over 10,000 people, several roads, and bridges.

Laos has 24 national protected areas (Pas) but no complete inventory exists for provincial or district Pas. IUCN-registered Pas cover 3.86 million ha (16.7% of total land area). Khammouan, Savannakhet and Saravan provinces are characterized by Greater Annamite ecosystem and consist of wet evergreen forests, dry Dipterocarp forests, and more open dry forest. Most land areas in these three provinces are categorized either Protection Forest, Production Forest or Conservation Forest. There are 10 National PAs in these provinces that are prioritized for conservation and host most unique and diverse biodiversity within the lower Mekong Ecoregion Complex. There are also Protection Forests and Production Forests along roadsides are generally degraded in many cases with encroachment by agriculture and human settlements. Illegal harvesting of timbers are reported nationwide, and Timber exports (logs and sawn wood) to China and Vietnam in 2013 were reported more than 10 times the officially registered harvest in Lao PDR (WWF, 2015: Assessment of scope of illegal logging in Laos and associated trans-boundary timber trade.).

The three target provinces, particularly the rural areas, are home to multi-ethnic groups belonging to the ethno-linguistic family of Mone-Khmer. Possessing the four characteristics under the ESS7, these ethnic groups and people are defined as Indigenous Peoples. Many of these ethnic groups and ethnic villages are found along both sides of the rural roads and could potentially be affected by the road improvement works to be financed by the proposed project.

The proposed District Roads and Rural Roads on the MPWT's long list in Saravan and Savannakhet are mostly in flat terrain and rolling terrain while those in Khammouan are in rolling terrain. In most cases, the proposed roads pass through agricultural areas and villages/residential areas. There are houses and other infrastructure located along of existing road corridors.

Lao PDR is heavily affected by Unexploded Ordnance (UXO). There were recent UXO accidents in Lao PDR that caused fatalities and injuries to people who turned over soil mainly for farming purpose. UXO clearance is still underway in Provinces including Khammuan, Savannakhet and Saravan. The PMU is currently conducting E&S Screening to inform the level and scale of risks and impacts on the local population including the ethnic groups and pre

#### D. 2. Borrower's Institutional Capacity

The project will be executed by the Ministry of Public Works and Transport (MPWT) through its Department of Roads (DOR). The MPWT has extensive experience in applying and implementing both safeguards policies and Environmental and Social Framework (ESF) under Lao Road Sector Project I (P158504) from 2010 until now, Lao National Road 13 North (NR13N) Improvement and Maintenance (P163730) from 2019-2024, and the Southeast Asia Regional Economic Corridor and Connectivity Project (P176088) from 2022 to 2027. Under these projects, environmental and social risk management requirements were largely complied with by the implementing agency. The overall safeguards and E&S ratings for the projects have been satisfactory. Social performance including social risk management and grievance redress have been also satisfactory with a system and focal points in place to manage the risks and complaints

The MPWT will establish a new Project Management Unit (PMU) in the DOR with its dedicated staff assigned and focal points from provincial DPWT and district OPWT to work on the project implementation including environmental and social compliance. The new PMU is needed because, unlike the original projects (LRSP2 and NR13N) which mainly finance provincial and national roads improvements, the CRRCIP will primarily focus on rural and district roads and is



expected to be approved 16 months before the closure of the ongoing projects. Cross support and knowledge will be transferred from the existing PMUs to the new PMU. The road improvement works under this project will be implemented and supervised through the Provincial and District Departments of Public Works and Transport (PDPWTs/DDPWTs), which have experience with the World Bank's financing projects under safeguards policies and are currently implementing a road improvement project with KfW financing. Even though the capacity of MPWT, DPWT and OPWT has been strengthened and is considered generally solid, knowledge and capacity gaps particularly with regard to the new ESF and ES Standards relevant to the project will be identified, and necessary training will be conducted, especially for provincial and district staff.

To cope with a growing number of road and infrastructure projects in the country and ensure adequate in-house capacity to comply the ESF requirements under the proposed project, the MPWT is proposed to hire a team of E&S consultants including young graduates as junior consultants with the right technical background to support PMU in ESF documents preparation, implementation and monitoring on the ground. Due to the current shortage of qualified national E&S consultants in Laos, the junior consultants with required technical background will be recruited and guided by a small number of senior or more experienced consultants during the course of project implementation. MPWT has also established a partnership with the National University of Laos (NUOL), Faculty of Social Sciences (FSS) to carry out social impact assessment, consultation and monitor resettlement plans and stakeholder engagement plans applied under the above listed road projects.

## II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

Moderate

#### Environmental Risk Rating

Moderate

The environmental risk is rated as Moderate. The project will mainly finance improvement works for existing District Roads and Rural Roads of about 300 km in the provinces of Khammouan, Savannakhet, and Saravan. The total financing of project is 53 mill USD. The project roads will follow the existing alignments except those segments where some small adjustments may be needed to improve road safety and climate resilience. Cross-drainage structures may need to be repaired or replaced with newly constructed concrete bridges or box culverts where the existing structures are in dilapidated condition. Potential direct impacts associated with the road improvement may include sourcing of material for earthworks, noise, dust, sedimentation, erosion, wastes generated from civil works, management of storm water, community safety related to traffic during construction and operation, occupational health and safety of the workers, worker camps, forests/land clearing beyond road corridors, encounter of unexploded ordnance (UXO), and intentional or accidental introduction of non-native flora species for stabilization of embankment. Based the scale and nature of proposed project activities, potential environmental risks and impacts associated with road improvement activities are considered insignificant, site specific, temporary, and manageable if relevant mitigation measures are properly conducted. Potential indirect impacts may be associated with improved road condition that may encourage additional encroachment of agricultural farms and infrastructure to the road-side forests which are already in degraded condition and cause further degradation of such forests or changes to other land use types. Road upgrade and the increased connectivity of road network may amplify illegal trades of timber and wildlife products from nearby Conservation Forests/Protected Areas and Protection Forests. Following risk mitigation hierarchy as per ESS 6, the project will not finance road sections within Protected Areas with international or



nationally significant biodiversity value that may cover Conservation Forests and Protection Forests so to ensure avoidance of adverse impacts on key biodiversity, critical and natural habitats, and ecological functions as well as local population.

### Social Risk Rating

Moderate

Social risk is currently considered Moderate based on the project information available and initial discussion with the PMU so far. Social risks and impacts are expected to be site specific and manageable since the project aims to finance improvement works for existing District Roads and Rural Roads within the pre-identified road alignments except those segments where some small adjustments may be needed to improve road safety and climate resilience. Moreover, the density of population in the three target provinces is relatively low ranging from 27 to 50 persons per square kilometer and the traffic volume, as well as number of road commuters, along the rural roads is small. Land acquisition and resettlement are expected to be minor as all main house structures and assets are located outside the road alignments and Corridor of Impact (COIs). Risks of Occupational Health and Safety (OHS) and Community Health and Safety (CHS) including risks of communicable diseases transmission, and Sexual Exploitation and Abuse and Sexual Harassments (SEA/SH), Gender-Based Violence (GBV) and Violence Against Children (VAC) will be likely low to moderate and manageable due to limited influx of workers anticipated from outside local community, and from neighboring countries if foreign contractors are selected. Given the nature and scale of the works proposed, the MPWT will opt for national competitive bidding method to encourage local contractors to undertake the road works and the contractors will be encouraged to hire local labors and workers from local communities to the extent possible. These approaches will help minimize risks associated with external labor influx and provide a paid job opportunity for local people. Workers camps may be installed along rural road sections. Labor Management Procedures, OHS and CHS plans will be developed and provided in the ESMF to manage such risks, and a social Code of Conduct will be also included in the ESMF to prevent and address potential SEA/SH, GBV, and VAC issues. . During the project implementation, subsequent site specific-ESMPs will be prepared and applied for each road section selected to manage the above discussed risks. There are some ethnic groups that may be defined as Indigenous Peoples (IPs) among the potential project affected people along the proposed road sections in the three provinces. These groups are observed to possess the four characteristics of IPs defined under the scope of application of the World Bank's ESS7. E&S Screening is underway to inform the nature and scale of risks and impacts on the local population including the ethnic groups and preparation of risk management instruments. Consultation with concerned stakeholders particularly with the project affected persons (PAPs) of the ethnic groups will be carried out to discuss potential risks and impacts from the project activities and obtain feedback on design options and risk mitigation measures. An Ethnic Group Development Framework will be prepared as part of a Stakeholder Engagement Plan required under ESS7 and ESS10 respectively to ensure meaningful consultation, effective information dissemination, active engagement of ethnic groups in project implementation, benefits from project investment, e.g., through employment, in a culturally sensitive manner.

## B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

### B.1. General Assessment

#### ESS1 Assessment and Management of Environmental and Social Risks and Impacts

##### *Overview of the relevance of the Standard for the Project:*





The longlisted roads were initially screened for potential environmental and social risks based on the available documentation. Overall the Environmental and Social (E&S) risk of the project is currently considered Moderate. On the basis of the project information available so far, nine out of ten Environmental and Social Standards (ESSs) of the World Bank will be likely relevant under the project. These are ESS1: Assessment and Management of Environmental and 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 People, ESS8: Cultural Heritage, and ESS10: Stakeholder Engagement and Information Disclosure.

Potential environmental risks and impacts are considered including:

- 1) Potential direct impacts and risks related to improvement of roads and cross-drainage structures as part of roads: earthworks, sourcing of materials, soil erosion, impacts on water flow and river biology, sedimentation, noise, dust, hazardous and non-hazardous wastes generated from civil works, exhaust from engines and fuel leak of earth moving vehicles, management of storm water, traffic disturbance during construction, community safety related to traffic during construction and operation, occupational health and safety of the contracted workers, clearing of production forests and land beyond road corridors for worker camps, encounter of unexploded ordnance (UXO), and intentional or accidental introduction of non-native flora species for stabilization of embankment.
- 2) Potential indirect impacts may be associated with improved road condition that may induce additional encroachment of agricultural farms and infrastructure to the road-side forests which are already in degraded condition and cause further degradation of such forests or changes to other land use types.
- 3) Indirect impacts that may be potentially amplified following road upgrading and the increased connectivity of road network: illegal trades of timber and wildlife products from nearby Conservation Forests/Protected Areas and Protection Forests.

Potential social risks and impacts are considered including:

- 1) Risks of the exclusion and discrimination, particularly of ethnic minorities, women and vulnerable groups from project planning, consultation, implementation and benefit, e.g., income earning or employment opportunities. Risks related to the labor and working conditions of project workers: i) workers health and safety resulting from unsafe working conditions and travel, (ii) employment discrimination, and (iv) Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) and child labor.
- 2) Risks related to community health and safety including road safety during and after road construction, transmission of communicable and respiratory diseases, Sexual Transmitted Diseases (STDs, HIV/AIDS), COVID-19 from contractor's workers and migrant workers and other risks associated with potential labor influx which are expected to be limited such as SEA/SH incidents during the road construction phase.
- 3) Temporary economic displacement, small-scale land acquisition and relocation of minor structures and/or access restrictions during the construction period.

While shortlisting roads based on selection criteria, consultations with Ministry of Agriculture and Forestry, and its respective Provincial and District Offices, and other key stakeholders must be undertaken to ensure that the





proposed road sections for project financing do not fall within Protected Areas with internally and nationally significant biodiversity value. Roads that are either (i) located close to protected areas or (ii) sub-sections of the roads entering protected area may be shortlisted if other selection criteria are met and gone through the feasibility study. The site-specific assessment for such roads will further determine potential risks to key biodiversity and critical or natural habitats. If any significant biodiversity risks are identified for roads close to/entering protected areas, a Biodiversity Management Plan will be prepared to manage these risks. Currently there is no planned financing from the government or other partner agencies to the long-listed roads, and hence no possibility of associated adjacent roads is identified. This will be further explored and confirmed during the project preparation.

The following project's risk management instruments will be prepared and applied under the project to manage the above E&S risks. These include but should not be limited to: (i) Environmental and Social Commitment Plan (ESCP), (ii) Environmental and Social Management Framework (ESMF) covering occupational health and safety requirements for road improvement works, UXO Protocol, Labor Management Procedures, Community Health and Safety Plan (CHSP), and a template for Biodiversity Management Plan, (iii) Resettlement Policy Framework (RPF) with sample outline of Abbreviated Resettlement Action Plan (ARAP) provided; and (iv) a Stakeholder Engagement Plan (SEP), which may include an Ethnic Group Development Framework (EGDF). These ESF instruments are required to be prepared, disclosed, consulted with key stakeholders, and submitted to the Bank for review and clearance before appraisal.

During project implementation, and after the list and scope of roads sections to be financed by the project is confirmed, site-specific assessments would be carried out and required site-specific management plans (SS-ESMPs) will be developed following the screening procedures to be outlined in the project's ESMF. Site-specific assessments and SS-ESMPs will identify sensitive areas and receptors along each section of a selected road (including but not limited to road-side forests, production forests, private owned or community-managed forests, schools, hospitals/healthcare centers, residential areas, cultural heritage sites, cemeteries); identify and summarize all anticipated adverse E&S risks and impacts; describe with technical details each mitigation measures as relevant to the type of impact; institutional arrangement for implementation of mitigation measures, monitoring and reporting; capacity building of contractors, implementation schedule and cost estimates; stakeholder engagement; and grievance redress mechanism. SS-ESMPs will include required site-specific tools and measures to be applied to manage the risks identified in each road section. key measures and requirements from the SS-SMP will be included in a bidding document and Contractor ESMP (C-ESMP) which forms part of work contract to be complied with by the contractor and will be closely monitored by the PMU with technical support from a firm of supervision consultant to be hired.

#### **Areas where "Use of Borrower Framework" is being considered:**

None

#### **ESS10 Stakeholder Engagement and Information Disclosure**

ESS10 Stakeholder Engagement and Information Disclosure



ESS10 requirements will be applied to ensure and enhance stakeholder awareness and participation in the project planning and implementation. The MPWT will prepare a Stakeholder Engagement Plan (SEP), including a Grievance Redress Mechanism (GRM) incorporating the inclusive approach and program for engagement, consultation and information dissemination. The SEP will also include outcomes from the E&S assessment to be carried out during project preparation. The SEP will be implemented, updated, and disclosed throughout the project life cycle. It will be developed early in the project preparation process to inform engagement to address key risks and develop communication and engagement strategies and materials to effectively reach out to affected and interested stakeholders to ensure accessibility and culturally appropriateness. Stakeholder identification, analysis, and engagement will also inform the E&S assessment process described in the ESMF. The approach to engagement activities will take into account the needs and challenges encountered by ethnic and vulnerable groups, both as part of engagement and also as part of the E&S assessment process. The engagement will ensure not only that risks are managed but that benefits from the project are accessible to all. Furthermore, the PMU is expected to establish a Grievance Redress Mechanism (GRM) at various levels and for all groups of project stakeholders particularly project affected people building on the existing formal and nonformal mechanism of the Government of Laos. The PMU, ES specialists and contractors will inform the project- affected parties about the grievance process and procedure, handle the grievance in cultural appropriate manner and maintain records documenting the actions taken on grievances. Thus, the functioning of the GRM can be monitored, and particular problem areas identified for improvement.

The project is expected to involve different groups of stakeholders from national to village levels, including local communities, government line agencies, mass organizations (Lao Women Union, Lao People's Revolutionary Youth Union, Lao Front for National Development with local presence), Civil Society Organizations (CSOs), development partners and the private sector. The project's stakeholders and the level of their engagement will be identified and analyzed by the PMU during project preparation. Stakeholder groups include: (a) those directly affected: people living along the both side of the selected road sections, government staff of MPWT and its Provincial and District Departments of Public Works and Transport (PDPWTs/DDPWTs) benefitting from the capacity building, (b) local administrations: provincial and district authorities and village chiefs, (d) interested individuals and groups including: communities located nearby the project areas, civil society organizations, women's organizations, ethnic group leaders and organizations; (e) private sector: road construction companies and road transport companies, (f) academics, non-governmental organizations (NGOs) working with children and women and human trafficking (g) and development partners at the central level.

Consultations with local communities will help identify E&S risks and mitigation measures and preparation of ESF instruments to manage the risks including risks of worker health and safety and community health and safety, risk of biodiversity conservation, wildlife consumption and smuggling and risk of cultural heritage (both tangible and intangible). Consultations with local communities especially those of ethnic groups will be used to identify cultural norms and practices and spiritual spaces, and understand the values and significance attached to these by different stakeholders.

Success of this project in delivering socially inclusive benefits and achieving planned project outcomes will depend on meaningful and culturally appropriate stakeholder engagement, including with vulnerable households, women, ethnic groups, children and people with disability. It will be important that child protection measures are also in place for road safety during and after construction, as well as to address risks of SEA/SH, and human trafficking. The SEP



will seek to ensure that beneficiaries and affected communities will be engaged, especially regarding project design options. Specific public communications campaign and consultations about the risks, impacts and project benefits will be undertaken.

As part of the information disclosure arrangements, the drafts of ESMF (including initial assessment results), SEP including EGDF, RPF, and ESCP will be disclosed publicly on the websites of the implementing agency and hard copies made available at participating PDPWTs and DDPWTs, with directly affected households meaningfully consulted. These ESF documents will be finalized with feedback from the consulted stakeholders incorporated before submission to the Bank for review and clearance. The cleared documents are required to be re-disclosed before appraisal. During the project implementation, the same requirements and process will follow for subsequent site-specific ESF instruments (ARAPs, SS-ESMPs) required to be prepared and applied in accordance with the ESMF, RPF and SEP. Meetings will be consistent with applicable government guidance on COVID-19 measures for public gatherings.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

Road improvement works to be financed under the project will likely involve a limited influx of workers from outside communities within the country, and from neighboring countries if foreign contractors are selected. Given the scale of the works, the Client will aim for national competitive bidding for local contractors to undertake the road works, reducing the likelihood for laborers from neighboring counties. This will minimize risks associated external labor influx expected to be limited including transmission of communicable diseases, Sexual Harassment (SEA/SH), Gender-Based Violence (GBV) and Violence Against Children (VAC). Workers camps may be installed along rural road sections. Work contractors will be encouraged to hire local labors or workers from within the community including female workers, to extent possible in order to minimize the potential risks and provide an income earning opportunity for local people. The project will involve civil servants (government staff appointed and employed by the implementing and concerned agencies at all levels) as direct workers, contracted workers (project consultants, employees of civil works contractors and subcontractors, service providers), and potentially primary supply workers (workers from providers of essential goods and materials).

Labor Management Procedures (LMP) will be prepared as part of the ESMF to be applied under the project to manage risks related to labor and working conditions. Site-specific ESMPs to be prepared for each of road sections in accordance with the ESMF will include the following provisions for managing potential impacts and risks of OHS: (i) The contractors are to comply with all national regulations and ESS2 requirements of which almost all aspects are consistent regarding workers' rights, working conditions and their health and safety; (ii) The contractors are to provide required training on occupational safety regulations and use of PPE; (iii) The contractors are to provide safety measures as appropriate during works such as first aid kits etc.; (iv) The PMU, contractors, and supervision consultants will comply with documentation and reporting procedures of occupational and community health and safety accidents, incidents, including instances of disease contamination as described in ESMF and provide remedies for adverse impacts such as occupational injuries and disease; (v) the PMU, contractors, and supervision consultants will prepare follow emergency prevention and preparedness and response arrangements to emergency situations



consistent with guidance provided in the ESMF; and (vii) No child labor and forced labor will be allowed under the project. Contractor management and preparation of contractor requirements particularly for the OHS aspects will be specified in the bidding documents and Contractor-ESMP (consistent with ESMF and Employer's ESMP), in the Project's Operations Manual, and more specifically in the qualifications, bidding criteria and contracts to be issued by the PMU.

The project management and implementation unit will ensure that all tender documents for civil works include the site-specific risk management plan, and budget provisions for all relevant aspects of the OHS and CHS. The PMU will also regularly monitor the contractor's performance in implementing OHS measures. Regular reports from the PMU to the World Bank will include project's performance on the OHS implementation. The PMU will also ensure that all direct worker and contracted worker have access to a grievance mechanism to address working concerns promptly. The workers' grievance mechanism will be described in the Project LMPs.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

The ESS3 on Resource Efficiency and Pollution Prevention and Management is relevant. The project investment on road improvement and cross-drainage structures for climate resilience needs to be technically and financially feasible to ensure efficient use of energy, water and raw materials.

The potential risks and impacts associated with road construction activities may include waste generation (including hazardous and nonhazardous waste) during earth movement and construction. Pollution may arise from mis-handling or improper disposal of oils, cement, plastic waste, and other types of solid waste. The disposal of construction waste to nearby water ways may cause blockage of water flows, affect water quality and aquatic animals' biological cycles (e.g. migration, spawning). Improper disposal of construction waste along the roads and lubricants or fuels leakage from project vehicles and equipment in use may pose health and safety risks to the project workers. The storages of petroleum-based products may potentially be sources of fire outbreak to the project sites and nearby communities.

Dust emission is a very common issue in road construction resulting from onsite excavation and movement of earth materials, vehicle movement, and transport of construction materials. Another source of emission may include exhaust from diesel engines of project vehicles and earth moving equipment as well as from open burning of solid waste on project site. These impacts and risks will be managed by the following measures: avoiding or minimizing air, water, and land pollution through the application of good engineering designs and good practices for construction by incorporating environmental mitigation measures (e.g. dust prevention measures, proper management of hazardous and non-hazardous site wastes and surplus materials, etc.) in the technical design and tender documents. The project will ensure that pollution prevention and management as well as spill prevention and response measures are included in the site-specific management plan.

The site-specific Environmental and Social Management Plans (ESMPs) may include an Environmental Code of Practices (ECOP) that reflects good practices/Good International Industrial Practices (GIIP) for road construction works, and the environmental mitigation measures (e.g. solid waste management, quarry management plan etc.), and Social Code of Practice (COC) to prevent and address potential risks of community health and safety and Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH). This provision will be clearly mentioned in the Environmental and Social Commitment Plan (ESCP), to be prepared prior to project appraisal.



#### **ESS4 Community Health and Safety**

The traffic volume of District Roads and Rural Roads after improvement are expected to be 100 – 300 passenger car units per day roads as Class V, and 50 – 100 passenger car units per day roads as Class VI. The potential impacts and risks anticipated during and after road construction periods may include (i) incremental risk of exposure to operational and traffic accidents; and (ii) exposure to hazardous materials and substances that might be released from the construction activities such as air pollution due to emission from dust, vehicles exhausts and burning of wastes at the project sites. Although the traffic volume is comparatively small, the project activities may cause traffic disturbance during construction, and road safety risks during construction and operation. Road accidents usually occur when vehicles (cars and motorbikes) tend to drive faster when the road condition is better. Houses and other sensitive receptors including schools, hospitals/healthcare centers, religious structures, among others, are located along the road. Rural people often use the right of way for agricultural and business activities. Road construction and operation will need to pay special attention to safety of pedestrians paying special attention to the safety risks to children elderly, persons with disabilities, and other vulnerable populations. Community health and safety risks including transmission communicable diseases, COVID-19, Sexual Transmitted Diseases (STDs and HIV/AIDS), and SEA/SH, GBV and VAC issues will be considered in contractor management, qualifications and bidding criteria and contracts for contractors. Given the small scale of work to be carried in road sections and limited external labor influx, security personnel are not expected to be engaged under the project.

The project will manage these impacts and risks by: (i) ensuring that technical/engineering road design to include solutions to mitigate risks of natural disasters such as integrate flood control and climate resilience with road design, integrate slope stability with erosion control plan, and structural design to incorporate earthquake resilience; (ii) addressing pollution prevention and management throughout the project life-cycle, implementing ambient air quality and noise management plan, and implement plant/equipment maintenance and management plan, and (iii) traffic regulation and road safety measures during and after the construction. The site-specific assessments will be carried out to identify CHS risks after road sections and locations are confirmed and Site-Specific ESMPs will be prepared and applied to address the impacts and manage risks identified in accordance with the ESMF. The SS-ESMPs will include measures and tools including CHS measures and traffic management and road safety plans and Social Code of Practice (COC) to prevent and address potential risks of community health and safety and SEA/SH. Key CHS measures including the COC as well as other environmental, social, health and safety requirements will be included in bidding documents and Contractor-ESMPs which forms part of work contracts to be adopted and complied with by the contractors. The project will develop a monitoring and reporting system to identify the issues and establish solutions.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

Improvement works for existing District Roads and Rural Roads to be financed under the project are expected to mainly follow the existing road alignments. However, there are some spots or segments of the road which may require insignificant changes to road alignments and width, and readjustment of road profile for the purposes of improving road safety and climate resilience. In these road segments, land acquisition and resettlement may be required including housing, commercial and agricultural land, and cultural and spiritual places. Economic displacement, local livelihood disturbance and restriction of access to local villages and households are also anticipated during the construction period. However, these risks and impacts are expected to be temporary,



insignificant, and manageable as all main house structures and assets are located outside the road corridors and the population density in rural areas of these three target provinces is relatively low.

Given that the detailed technical design and exact road sections, on which land acquisition and resettlement may be required, will not be known prior to appraisal, a Resettlement Policy Framework (RPF) will be prepared and applied under the project. The RPF will provide the principles and process of assessing impacts, magnitude, or scope of land acquisition and resettlement, livelihood disruption and economic displacement and for preparing Abbreviated Resettlement Action Plans (ARAPs) for impact mitigations and compensation for assets and land lost. ARAPs will include provisions and entitlements for compensation and necessary support for PAPs during resettlement transition and livelihood restoration, costs, implementation, and monitoring arrangement. Special attention will be paid to the vulnerable and ethnic groups of PAPs including women, female heads of households, elder people and people with disability who may need additional support for relocation and livelihood restoration. The RPF will be submitted to the Bank for review and clearance prior to appraisal. Following identification of specific sites and corridor of impacts (COIs), ARAPs for each road sections will be prepared as required in accordance with the RPF. Draft ARAPs will be disclosed locally and in local language at minimum of two weeks prior to consultations. With outcomes of the consultation incorporated, ARAPs will be finalized and submitted to the World Bank for review and approval and re-disclosed by the PMU before implementation. ARAPs will be fully implemented, with compensation and resettlement process completed before beginning of the road works.

#### ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The ESS6 on biodiversity conservation and sustainable management of living natural resources is relevant. Lao PDR designated areas with internationally or nationally significant biodiversity values as Protected Areas which may be either National Protected Area (NPA) or Provincial Protected Area (PPA). NPAs which are prioritized for sustainable management and financing under the Master Plan for the National Protected Areas of Lao PDR (2020-2025) include wet evergreen ecosystem: (i) Nakai-Nam Theun NPA, Khammouan Province, (ii) Laving-Laverne NPA, Savannakhet Province, (iii) Xe Sap NPA, Saravan Province; Indochina limestone karsts ecosystem: (iv) Phou Hin Poun NPA, Khammouan Province, (v) Hin Ham No PA, Khammouan Province; dry evergreen, mixed deciduous and dry dipterocarp forest ecosystem: (vi) Phou Xang He NPA, Savannakhet Province, (vii) Dong Phou Vieng NPA, Savannakhet Province, (viii) Xe Bang Nouan NPA, Saravan Province, and (ix) Phou Xieng Thong NPA, Saravan Province, and (x) National Eld's Deer Sanctuary, Savannakhet Province. Protected Areas may cover both Conservation Forests and Protection Forests depending on their presence of significant flora and fauna, and important ecosystem functions.

The PAs in the project target provinces have most significant representation of this Greater Annamite ecosystems within the lower Mekong Ecoregion Complex. Some areas of these provinces are classified as Protection Forests for watershed protection, erosion control, national security, and prevention of natural disasters. Some are Production Forests designated for supply of wood and non-timber forest products (NTFPs) which may be allocated and managed or used by the local communities as per the District Forest Management Plans. Production forests passed through by some proposed roads have been largely degraded with presence of agricultural farming and housings and small other infrastructure.

To minimize the potential E&S risks at the project level, it was agreed that (i) the proposed project will not finance road sections within PAs with internally or nationally significant biodiversity value, to avoid risks and impacts on





biodiversity of significant value, critical and natural habitats, and ecological functions. While shortlisting roads based on selection criteria, consultations with Ministry of Agriculture and Forestry, and its respective Provincial and District Offices, and other key stakeholders must be undertaken to ensure that the road sections for project financing do not fall within PAs which are prioritized for conserving internally or nationally significant biodiversity. Roads that are either (i) located close to PAs or (ii) sub-sections of the roads entering PAs may be shortlisted if other selection criteria are met and gone through the feasibility study. The site-specific assessment for such roads will further determine potential risks to key biodiversity and critical or natural habitats. When any significant biodiversity risks are identified for roads close to/entering PAs, a BMP will be prepared to manage these risks.

The potential risks may include but are not limited to noise, dust, waste generation, and increased traffic volume associated with the road improvement during road construction and operation stages and these may affect integrity of nearby PAs, breeding habits, animal crossing and migration patterns of wildlife. Any potential for indirect impacts will be further assessed including amplifying illegal trade of timber and wildlife from the nearby PAs. Mitigation measures to manage significant potential biodiversity risks if any, will be integrated into the site-specific Biodiversity Management Plan which may include ways to engage with local authorities and other stakeholders on post-construction protection of illegal timber and wildlife trade.

Civil works for road improvement will be mainly carried out within the existing road alignments except at places where some adjustments are required for widening and climate resilience. Land clearing beyond the road corridors may be necessary in such cases and for workers accommodation and laydown areas. Road alignment may go through some Protection Forests and Production Forests and noise and frequent movement of traffic during construction and operation might affect biodiversity and their habitats. While the site-specific ESMP will include mitigation measures to limit direct impacts on forests and biodiversity during construction phase, improved access and better road condition during operation stage and after project completion may bring additional pressure on the remaining forests along road sides including further encroachment of agricultural activities, and new settlements. These will be accepted as residual risks as the project benefits relate to transport improvement, facilitation of trade and potential livelihood improvement of communities outweigh the risks.

As part of the road improvement for climate resilience, cross-drainage structures will be rehabilitated or newly replaced at many places. There is a possibility of constructing new bridges across streams and small rivers which are tributaries flowing into the Mekong River. There is a potential of short-term impacts on aquatic flora and fauna of these tributaries due to increased turbidity during the construction phase. This is predicted to be minor and a very short duration, returning to normal again once the works are completed and not expected to have significant impacts on aquatic ecology of the Mekong River. These short-term impacts will be reduced and kept to a minimum through mitigation measures controlling release of sediments and erosion control and by timing the works in the dry season. While new bridges are expected to be small, the design of bridges will ensure that they do not obstruct the flow of water and the structure do not cause significant changes to the hydrodynamic environment.

The construction works for road improvement may temporarily restrict movement of nearby communities to access to resources such as timbers, fibers, medicinal plants, food and freshwater. Potential risks and impacts on ecosystem services (i.e. provisioning, regulating, cultural, and supporting services) will be considered and addressed in the site specific ESMPs. Due to the scale and nature of project activities, the road upgrading is not likely to severely affect ecosystem services.





### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

In Laos, there are 50 distinct ethnic groups classified into four ethno-linguistic families namely Hmong Iew Mien, Mone-Khmer, Chine-Tibetan and Lao-Tai. The term “Ethnic Groups” is often used for ethnic minority groups belonging to the first three ethno-linguistic families (Hmong Iew Mien, Mone-Khmer and Chine-Tibetan) who meet the four characteristics and definition of Indigenous Peoples under ESS7. Some ethnic groups under Mone-Khmer family are reportedly present along the proposed road sections in the three target provinces to be covered by the project.

The MPWT is currently conducting E&S screening including screening for the presence of ethnic groups in the Project’s area of influence and impact corridors along the road sections. It will also assess the nature and degree of the expected direct and indirect economic, social, cultural, and environmental impacts on ethnic groups who are present in or have collective attachment to the project area. Findings from the screening will inform the preparation of an Ethnic Group Development Framework (EGDF), to be included in SEP. The EGDF aims to ensure the active participation of the different ethnic groups and their representatives in the project’s stakeholder engagement activities, meaningful consultation, and that any information shared is sensitive to their cultural needs as required under the ESS7. Where impacts relate to one or more of the circumstances requiring Free Prior and Informed Consent (FPIC), then FPIC will be used for engagement, in the undertaking of assessments, and informing frameworks and plans. Circumstances requiring FPIC include those where the project is expected to (i) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation; (ii) cause relocation of from land and natural resources subject to traditional ownership or under customary use or occupation; or (iii) have significant impacts on cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the lives of affected communities.

The EGDF is expected to be prepared as part of the broader Project SEP to be prepared in accordance with ESS7 and ESS10. The SEP will include main findings and outcomes from the E&S screening and stakeholder consultations to be carried out including minutes of consultation meetings as an annex. There is a need to ensure that ethnic groups are not excluded from any benefits and that there is equity in the benefits including those from employment and income earning opportunities from the road works, operation, and maintenance. The SEP will include a Grievance Redress Mechanism for the project required to be established taking into consideration the needs and challenges faced by ethnic groups to access and lodge feedback or grievances. Whenever feasible, locally appropriate GRMs should be built upon, such as traditional grievance or conflict resolution systems which involve ethnic group leaders as the chair or advisor of Village Mediation Committee. Such Committees are established in all villages nationwide and representatives of ethnic groups in multi-ethnic villages.

Special attention will be paid to the needs of the ethnic groups (IPs) in engagement including ensuring translation into relevant languages during consultations on key issues and measures. MPWT will hire social consultants with facilitation skills to help carry out meaningful consultation with the ethnic villages and ethnic groups in collaboration with the National University of Laos. The consultants will also support and facilitate participation of the different ethnic groups and representatives in the project’s stakeholder engagement activities and ensure that any information shared is sensitive to their culture. Special attention will be given to the road safety action plan under Component 3



prepared under Technical Assistance by the Global Road Safety Facility. The project includes support to implement the action plan.

### **ESS8 Cultural Heritage**

ESS8 on cultural heritage is currently considered relevant as parts of road sections may pass through areas and places (or receptors) where spiritual and cultural value are believed significant for local communities and households particularly those of ethnic groups (IPs). Attention and measures would be required to manage potential risk of harm to, failure and/or reluctance to pay respect and observe such cultural heritage. Cultural heritage takes various forms in Laos. Some of it may be visible, and many others may not be identifiable without consultation with ethnic leaders and Lao Front for National Development Office, a government mass organization in charge of ethnic affairs with local presence nationwide. A list of Dos and Don'ts will be prepared and provided in the ESMF to be applied to prevent and manage risks of misbehaviors towards both tangible and intangible cultural heritage.

After the exact locations and corridors of impact are determined during project implementation, site-specific assessments will be carried out to determine the baseline conditions of proposed roads and further assess any potential risks and impacts on and restriction of access to cultural heritage (tangible and intangible). The assessment will be informed by the local communities, who are best placed to identify the cultural and spiritual places of value and significance to them.

### **ESS9 Financial Intermediaries**

Not relevant. The project will not involve financial intermediaries.

## **C. Legal Operational Policies that Apply**

<b>OP 7.50 Projects on International Waterways</b>	No
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<b>OP 7.60 Projects in Disputed Areas</b>	No
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## **III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

<b>A. Is a common approach being considered?</b>	No
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### **Financing Partners**

None

### **B. Proposed Measures, Actions and Timing (Borrower's commitments)**

#### **Actions to be completed prior to Bank Board Approval:**

- Environmental and Social Commitment Plan (ESCP)



- Stakeholder Engagement Plan (SEP) which includes Ethnic Group Engagement Framework (EGEF) into one document
- Environmental and Social Management Framework (ESMF) covering generic Biodiversity Management Plan, health and safety requirements, Procedures for UXO encounter, Labor Management Procedures, Community Health and Safety Plan, List of Dos and Don'ts to prevent risks of Wildlife consumption and trafficking, Code of Conduct to prevent and address SEA/SH, GBV and VAC risks, Cultural Heritage Framework
- Resettlement Policy Framework (RPF)

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

- Organizational structure and implementation arrangement with adequate number of qualified E&S staff and consultants
- Preparation and effective implementation of the project's E&S instruments
- Meaningful engagement throughout project implementation
- Monitoring and reporting of E&S performance
- Accident/incident reporting
- ESF capacity building for the implementing agency and contractors
- Allocation of adequate resources (human, including consultants and financial resources) for the implementation of risk management measures, monitoring, and capacity building.
- Establishment and Operationalization of project level Grievance Redress Mechanism (GRM)

**C. Timing**

**Tentative target date for preparing the Appraisal Stage ESRS**

29-Feb-2024

**IV. CONTACT POINTS**

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**Borrower/Client/Recipient**

**Implementing Agency(ies)**

Implementing Agency: Ministry of Public Works and Transports



## V. FOR MORE INFORMATION CONTACT

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## VI. APPROVAL

Task Team Leader(s):	Pratap Tvgssshkr, Sombath Southivong
Practice Manager (ENR/Social)	Ingo Wiederhofer Recommended on 17-May-2023 at 05:48:28 EDT
Safeguards Advisor ESSA	Nina Chee (SAESSA) Cleared on 23-May-2023 at 13:49:26 EDT