



Luxembourg, 11 December 2024

## Environmental and Social Data Sheet

### Overview

Project Name:	Lao Resilience National Road 2 (FL 20190324)
Project Number:	20230148
Country:	Lao People's Democratic Rep.
Project Description:	<p>The project consists of the rehabilitation and improvement of the National Road 2 East (NR2E) and West (NR2W) located in the Northern part of Lao PDR within the Provinces of Oudomxay and Phongsaly. The project includes:</p> <ul style="list-style-type: none"> <li>• Approx. 136km of NR2W financed by the World Bank</li> <li>• Approx. 99km of NR2E financed by the EIB.</li> </ul>
EIA required:	No
Project included in Carbon Footprint Exercise <sup>1</sup> :	Yes

### Environmental and Social Assessment

#### Environmental Assessment

##### Legislation

In Lao PDR, the Environmental Protection Law (EPL), 1999 established a framework for management of environmental resources. The Environment Impact Assessment (EIA) Decree No.1770/STEA issued the first EIA regulation in 2000. This was followed by the Decree on the Implementation of the EPL in 2002 and was revised in 2010 by Decree on EIA No.112/PM, 2010. This prescribed the thematic issues to be covered and the outputs expected at the different stages of the EIA process (pre-construction, construction and operation stages) and identified the following categories of investment projects requiring environmental and social assessments:

- Category 1: Investment projects, which are small or create fewer impacts on the environment and society and require Initial Environmental Examinations (IEE).
- Category 2: Large investment projects which are complicated or create substantial impacts on the environment and society and require EIAs.

The Ministry of Natural Resources and Environment (MoNRE) is the lead ministry responsible for implementation of the EPL and its regulations. The Provincial Department of Natural Resources and Environment (PONRE) is responsible for the IEE appraisal process and conducts an administrative and technical review of the IEE report. Upon approval, PONRE issues an Environmental Compliance Certificate (ECC).

##### Environmental Impact and mitigation

The Project consists of the rehabilitation and improvement of NR2 East and NR2 West sections for approx. 235km within the Provinces of Oudomxay and Phongsaly with approx. 136km of NR2W financed by the World Bank and approx. 99km of NR2E financed by the EIB.

The NR2E is further divided into 3 sections as follows:

- Section 1: 51km between km0 to km51
- Section 2: 27.1km between km51 to km78.10

<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.



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- Section 3: 20.9km between km78.10 to km99.049
- The NR2W is further divided into 3 sections as follows:
- Section 1: 68.40km between km0 to km68.40
  - Section 2: 52.60km between km68.40 to km121.00
  - Section 3: 15.03km between km121.00 to km136.033

The project road also forms part of a section of the Asian Highway No. 13 (AH13), which is one of the east-west corridors in Southeast Asia. It connects with the Thai border at Huai Kone-Nam Ngeun and NR2-East (NR2E) connects with the Vietnamese border at Panghok-Tay Trang, Dien Bien Phu Province.

If the project were in the EU, this kind of road rehabilitation works would fall under Annex II of the EIA directive, or if no significant environmental impacts are expected, would fall outside the scope of the EIA directive. Under the Environmental Protection Law of Laos, road rehabilitation projects are screened by the competent authority. The Article 11 of the EIA Decree No. 21/GOL stipulates that IEE is required for investment projects and activities that are in the Category 1 and the Ministerial Decision No. 8056/MONRE stipulates that Improvement or Rehabilitation of National, Provincial, District and Rural Roads is categorized under Category 1. Therefore, for this project, in accordance with the national requirements, the Promoter has screened out the EIA and has prepared two IEEs as follows:

- IEE covering NR2E in Oudomxay and Phongsaly province.
- IEE covering NR2W in Phongsaly province.

Both the IEEs were submitted to the PONRE of Oudomxay and Phongsaly in October 2023 respectively. The two IEEs were approved by the respective PONRE and required ECC were issued in Feb 2024.

However, both EIB and the WB requested the Promoter to prepare an Environmental and Social Impact Assessment (ESIA) in compliance with the World Bank Environmental and Social Framework (ESF), EIB Environmental and Social Sustainability Framework (ESSF) to better understand the wider impact and the mitigation measures. The ESIA provides a road map to the environmental measures needed to prevent and/or mitigate negative environmental and social effects associated with the Project. The ESIA package is disclosed on the Ministry of Public Works and Transport (MPWT) website.

The ESIA and the IEEs along with ESMP (Environmental and Social Management Plan) include expected impacts and the mitigation measures. The table below provides a summary of the key impacts and the mitigation measures during construction and operation:

Expected impact	Mitigation measures
Emission of harmful substances during construction activities	<ul style="list-style-type: none"> <li>• Equipping the emission stationery facilities with relevant air-cleaning.</li> <li>• Dust control measures will be implemented on the main construction zones and haul routes and to 500 m from the camp and plant entrances. The contractor to water the road to protect dust pollution, especially during the dry season.</li> <li>• Construction equipment will be maintained to a good standard and fitted with pollution control devices regularly monitored by the Contractor and Engineer</li> </ul>
Noise pollution during construction	<ul style="list-style-type: none"> <li>• Making noise-protection barriers, if necessary, between the noise sources and the receptors.</li> <li>• Contractors to provide adequate information on the rehabilitation implementation period and a contact person in case local community wants to complain.</li> <li>• Contractor to regular community meetings with locals to provide details of construction activities and temporary crossing facilities where required.</li> </ul>



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Risks of pollution of surface and ground waters and soils	<ul style="list-style-type: none"> <li>• Fuel and chemical storage (if any) to be sited on an impervious base within a bund and secured by fencing. The storage area to be located away from any watercourse or wetlands.</li> <li>• Contractor to prepare a method statement for the disposal of spoil material.</li> <li>• Bridge construction works to ensure that all works are undertaken in periods least likely to affect the fish spawning period.</li> <li>• Drainage channels with stone filters to prevent water contamination.</li> <li>• Treatment systems to prevent the propagation of the pollutants in case of emergency spills.</li> </ul>
Access during construction	<ul style="list-style-type: none"> <li>• Provide safe access at all times through the construction site to people whose residences/shelters and routes are temporarily severed by road construction.</li> </ul>

### **Biodiversity**

One Nationally Protected Area (NPA), Phou HiPhi NPA, is located within the Project Area. The NR2E section borders the northern boundary of the NPA for approximately 22 km but does not cross it. No critical and endangered mammals and other wildlife occur in the Phou HiPhi natural protected area. Only species listed in the IUCN Red List as “vulnerable” are reported to present here but they have been found more abundant in most national protected areas across Laos. The Contractor to carry out routine inspections of work sites along Phou HiPhi to ensure that machinery and workers are not on the other side of the river or dumping waste materials in this area.

### **Cultural Heritage**

One cemetery will be significantly impacted by Project works with graves needing to be removed and relocated. This is a Khmu cemetery in Pangsom village in Beng District, part of NR2W.

### **Internationally Designated Sites**

There are no internationally designated sites, such as Important Bird Areas (IBA), Key Biodiversity Areas (KBA), Alliance for Zero Extinction (AZE) sites or important wetlands (e.g. RAMSAR) located within 10km of the Project Road.

### **Climate change**

The Project is in line with Lao’s PDR first Intended Nationally Determined Contribution (NDC)<sup>2</sup>. This document specifies the need to increase the resilience of infrastructure to climate change (adaptation) and to one Nationally Appropriate Mitigation Action (NAMA) feasibility study.

The Promoter has the intent to implement a design for NRE and NR2W sections which is adapted to the impacts of climate change, and which aims to ensure that the road is open to traffic at all times, including during rainy season, episodes of intense rain and in case of other major climate-related events. According to the Promoters Climate Vulnerability report storm intensity, flooding, runoff, heatwaves, landslide, and slope erosion are the main climate risks to the project. Measures included are adapted designs for bridges, culverts, drains, and ditches, elevating flood prone road sections, embankment protection, proposed asphalt road construction for more stability during floods and adapted riverbank protections in selected locations. After the application of proper mitigation measures, the climate risk of the project is rated as “low”.

<sup>2</sup> [NDC 2020 of Lao PDR \(English\), 09 April 2021 \(1\).pdf \(unfccc.int\)](#)



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### **Project Paris alignment:**

The project has been assessed by the Bank's services for Paris Alignment in accordance with the policies set out in the Climate Bank Roadmap (CBR). Rehabilitation of an existing strategic corridor is supported under EIB's criteria of the CBR's Paris Alignment Framework and is not subject to the adapted economic test in place for capacity expansion projects. The project is consistent with the Lao Strategy on Climate change<sup>3</sup> and the NDC4 of 2021. Vulnerabilities and climate challenges are shown on the resilience map of Lao PDR<sup>5</sup>.

National Key Strategic Priorities / Adaptation and Mitigation Options (of the Transport sector) include:

1. Incorporating a range of possible climate change effects into the transportation investment decisions and management strategies.
2. Developing long-range transportation plans and investment strategies that are sufficiently robust to accommodate unanticipated future events.
3. Identification of the at-risk critical infrastructure, monitoring of conditions (both climate and infrastructure), changes in operation and maintenance practices, changes in infrastructure design and redesign and relocation of vulnerable infrastructure.

The project is therefore Paris aligned.

### **EIB Carbon Footprint Exercise**

The project is included in the Carbon Footprint exercise on the following basis:

- Estimated annual emissions of project in a standard year of operation:
  - Forecast absolute (gross) emissions are 39,800 tonnes of CO<sub>2</sub> equivalent per year.
  - Forecast emission created are 1,600 tonnes of CO<sub>2</sub> equivalent per year.
- The project boundaries are the road sections being rehabilitated (235km) that connect the localities of Muang Khua to the east and Pak Beng to the west of Laos.

The baseline is the forecast third party emission, in the absence of the project, from the existing network, only within the boundary defined above. The forecasts reflect the Services' assumptions on traffic, traffic growth, speed/flow, infrastructure capacity and fuel consumption. For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost. The project is expected to decrease emissions of particulate matter (PM) by 5.23 tonnes that corresponds to EUR 0.26 million in monetised terms.

### **Social Assessment, where applicable**

Two Resettlement Action Plans (RAP) were prepared for the Project – section NR2 East and NR2 West – in compliance with the World Bank Environmental and Social Framework (ESF), EIB Environmental and Social Sustainability Framework (ESSF), Decree 84 of the Lao Government, and the Ministry of Natural Resources and Environment's (MONRE) 2016 Ministerial Instruction No. 8030/MONRE on Environmental and Social Impact Assessment Process of the investment projects and activities. These RAPs were published in MPWT's website.

The NR2 runs through two provinces, Phongsaly and Oudomxay. The section of NR2E in Oudomxay Province passes through the districts of Xay and Lah while the section in Phongsaly Province passes through Khua District. For NR2E the RAP indicates that land acquisition is

<sup>3</sup> <https://policy.asiapacificenergy.org/node/2820> or [https://data.laos.opendevlopmentmekong.net/library\\_record/strategy-on-climate-change-of-the-lao-pdr/resource/e4d5c148-b370-4e1a-96af-b14047ee055d](https://data.laos.opendevlopmentmekong.net/library_record/strategy-on-climate-change-of-the-lao-pdr/resource/e4d5c148-b370-4e1a-96af-b14047ee055d)

<sup>4</sup> <https://unfccc.int/sites/default/files/NDC/2022-06/NDC%202020%20of%20Lao%20PDR%20%28English%29%2C%2009%20April%202021%20%281%29.pdf>

<sup>5</sup> <https://www.wfp.org/publications/lao-pdr-report>



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required with 1 affected plot in Xay district along the bypass road and 5 affected plots in Khua district. Table below provides the actual affected households and affected people in NR2E:

Description	Xay District	Lah District	Khua District
No. of AHs	10	59	120
No. of APs	53	306	618
No. of Female APs	22	155	321

In 17 villages along the NR2E approx. 65 primary structures or houses and approx. 186 secondary structures are expected to be affected by the civil works. It is also expected that 65 shops will be affected.

For NR2W the RAP indicates that there will be 1 permanently affected AH who will lose land (owner of a fishpond).

Description	Xay District	Beng District	Houn District	Pakbeng District
No. of AHs	12	24	19	16
No. of APs	81	126	86	89
No. of Female APs	32	63	49	42

Approximately 71 houses and 171 small scale businesses will be affected by the Project.

The RAP implementation is expected to start in Q4 2024. MPWT is the implementing agency with the overall responsibility of RAP implementation for all four sections. The RAP implementation will be subject to internal and external monitoring. The PMU will carry out internal monitoring of the implementation. The works supervision consultant will carry out the external monitoring of the RAP implementation. Contractors shall ensure occupational and community health & safety as part of their works contracts. In addition, Road Safety Audits were carried out for the conceptual design in accordance with the Road Infrastructure Safety Management Directive (2008/96/EC).

An Ethnic Groups Engagement Plan (EGEP) has been prepared for the project to address potential issues regarding vulnerable groups and ethnic minorities. The study has not identified any specific impacts above and beyond what are already assessed in this impact assessment, apart from impacts to a cemetery in Beng District. The EGEP sets out guidelines for the establishment of the Grievance Redress Mechanism (GRM) with ethnic group (EG) inclusion, continued consultations with EGs, nomination of EG focal point within the PMU, and participatory monitoring.

The Project is expected to provide safer living conditions in the settlements along the NR2E and NR2W by improving the road conditions on safety and climate adaptation. The project will also facilitate temporary and permanent job creation and some local business opportunities in the region. The project ESMP incorporates mitigation measures regarding occupational and community health safety as well as provisions to ensure workers' rights are handled in accordance with national law on labour standards and obligations deriving from International Labour Organisation (ILO) conventions ratified by Lao.

### **Gender**

A Gender Action Plan (GAP) was developed for the NR2 Project outlining specific objectives. The following lines of actions are expected to guide Project implementation in the context of pursuing gender equality objectives:

- Capacity building for gender mainstreaming and protection of violence against women and children
- Promotion of the participation and employment of women in the construction work



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- Generation of information and indicators disaggregated by gender on the environmental and social impacts including road safety monitoring and reporting.

### **Public Consultation and Stakeholder Engagement**

Stakeholder engagement has been undertaken throughout the development of the Project, with the aim of determining and responding to the views of interested parties and those potentially affected by the Project throughout its lifecycle, and ensure open and transparent, two-way communication between the MPWT and stakeholders. Specifically, a Project Stakeholder Engagement Plan, in line with EIB standards, has been prepared for the Project which outlines the proposed consultation procedures, as well as the proposed grievance redress mechanism, for all phases of the Project.

To date over 100 consultation sessions have been held within the Project area involving 921 different stakeholders. A range of comments relating to environmental and social issues have been made during the consultation sessions with the key comments raised recorded and addressed within the ESIA.

### **Conclusions and Recommendations**

The main objective of the Project is to improve access to social services and markets (leading to improved livelihoods and poverty alleviation), enhance the efficiency of the road network, and transport in the project area and southern part of Lao PDR, including by adapting the design of the road to impacts from climate change. The project implementation is within the existing right of way and is expected to have limited negative environmental impacts during construction and operation. Improvements to the road condition is expected to have positive impacts in the settlement areas by reducing the amount of dust gathering on the road. The project is also expected to decrease emissions. The residual impact after mitigating measures is expected to be limited and is adequately addressed in the project's management plans included in the IEE, EGEP, ESMP and RAP. This project is the second allocation under the Lao resilient Framework Loan approved in Dec 2019 (FL 20190324). Prior to disbursement against this allocation, the promoter shall be required to meet the disbursement conditions agreed under the Lao Resilient Framework Loan ESDS. In addition, the following specific conditions will apply for NR2E sections of the Project:

Prior to the first disbursement the Promoter shall provide to the Bank the following:

- a) Evidence that the implementation of the RAP is advancing satisfactorily in relation to the project calendar, such that sufficient right of way is available for construction.
- b) Satisfactory evidence of implementation of the RAP and all relevant E&S safeguards documents.
- c) Satisfactory evidence that all impact management measures identified in the ESMP and measures on occupational and community health & safety have been incorporated into the construction and supervision contracts.
- d) Evidence that monitoring of RAP and all relevant E&S safeguards documents is part of the supervision consultants' terms of reference.
- e) Evidence that the Grievance Mechanism for the Project is operational.
- f) Confirmation that the Project Management Unit (PMU) and supervision teams includes environmental and social experts.
- g) Evidence that provisions and requirements for the respect of ILO conventions and applicable national legislation on labour standards and obligations have been included in the construction and supervision contracts.

Prior to the subsequent disbursement the Promoter shall provide to the Bank the following:

- a) Evidence that the implementation of the RAP is advancing satisfactorily in relation to the project calendar, such that sufficient right of way is available for construction.

The Promoter shall undertake to submit to the Bank the following Environment and Social monitoring documents:



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1. Satisfactory evidence that the implementation of the project is in accordance with the E&S safeguard documents and aligned with the EIB Environmental and Social Standards.
2. Report on the status of the RAP implementation, including any unexpected events and any updates of the RAP.
3. Satisfactory evidence of the implementation of the project gender action plan recommendations.
4. Satisfactory evidence that the Grievance Mechanism for the Project is operational.
5. Confirmation that the PMU and supervision teams includes environmental and social experts.
6. Present end of term evaluation of RAP(s) implementation prepared by a third party.
7. During the construction works the Promoter should monitor and give regular updates on the respect of the fulfilment of ILO conventions and applicable national legislation on labour standards and obligations by main contractors and subcontractors.

The Promoter shall submit the documents corresponding to Undertakings, points 1) to 7) above on, at least, a 6-monthly basis.

Under the conditions indicated above, the project is acceptable for EIB financing from an environmental and social perspective.