



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 28-Jun-2021 | Report No: PIDC31930

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

Country Lao People's Democratic Republic	Project ID P175996	Parent Project ID (if any)	Project Name Lao Environmental and Waste Management Project (P175996)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date Jul 01, 2022	Estimated Board Date Sep 30, 2022	Practice Area (Lead) Environment, Natural Resources & the Blue Economy
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance, Lao People's Democratic Republic	Implementing Agency Environment Protection Fund, Lao People's Democratic Republic, Ministry of Public Works and Transport, Lao People's Democratic Republic	

Proposed Development Objective(s)

To improve environmental, waste and pollution management in Lao PDR.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	43.00
Total Financing	43.00
of which IBRD/IDA	43.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	43.00
IDA Credit	43.00



Environmental and Social Risk Classification

High

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. The Lao People’s Democratic Republic achieved rapid growth and significant poverty reduction between 2005 and 2015, though inequality widened.** Gross domestic product (GDP) has averaged around 8 percent growth per year since 2000. The poverty rate declined from 34 percent in 2003 to 23 percent in 2013, reaching 18 percent in 2019. Yet the Gini coefficient increased from 32.5 to 38.8 during the same period, reflecting lower gains for the bottom 40 percent. COVID-19 is placing an added economic burden on the country. Economic growth declined to 0.4 percent in 2020, the lowest level in three decades.¹
- 2. Key economic activities underpinning Lao PDR’s economic dynamism include mining, logging, hydropower sector expansion, and agriculture.** While these activities provide important economic gains, they have also resulted in high rates of natural resource depletion and environmental degradation, with estimated annual costs at 4.8 percent of GDP.² Climate change hazards such as drought and floods are predicted to increase, altering the landscape, fauna, flora and vegetation, but also destroying public infrastructure, property, productive land, agricultural assets and harvests and subsequently further degrading natural resources.³
- 3. The most important environmental problems are associated with environmental health, representing an annual cost equivalent to 14.6 percent of GDP⁴.** Most costly are those related to air pollution, as well as inadequate disposal and widespread burning of solid waste, water pollution and inadequate wastewater treatment and lead exposure. As elsewhere in the world, the distribution of pollution impacts falls primarily on the vulnerable.
- 4. Due to the increasing urbanization in Vientiane and secondary cities and despite improvements, cities and districts suffer from lack of infrastructure and municipal services.** City limits have been expanded but often in the absence of spatial planning and urban development planning. The continued growth of the cities will require higher levels of infrastructure and municipal service levels, which are currently facing underinvestment together with weak institutional capacity in policy, planning implementation and enforcement.
- 5. Lao PDR has been shifting its development trajectory to a green growth path that is more resilient, inclusive and sustainable.** Key policies have been put in place that aim to reduce pollution and the high cost it places on human health and economic growth. The National Green Growth Strategy 2030 prioritizes policy and investment action on

¹ WB (2021). The World Bank in Laos Overview. <https://www.worldbank.org/en/country/lao/overview>

² WB (2021). Environmental Challenges for Green Growth and Poverty Reduction: A Country Environmental Analysis for the Lao PDR.. Under development.

³ <https://climateknowledgeportal.worldbank.org/country/laos>

⁴ WB (2020): Lao People’s Democratic Republic State of Environment Report. Under development.



renewable natural resources; pollution and waste management; environmental fiscal instruments; and others that can drive the circular economy. The proposed project would build upon these achievements and support the GoL by increasing its implementation capacity to address a range of environmental issues, including pollution and waste management.

Sectoral and Institutional Context

6. **Pollution levels in Lao PDR have severe public health and economic impacts and need improved monitoring and regulatory oversight.** Recent WB assessments attribute some 10,000 deaths annually (21% of all deaths) to environmental health risk factors, and health impacts from pollution are equivalent to 15 percent of GDP.⁵ Improved monitoring and regulation of key pollution sources such as household and ambient air pollution, lead exposure, drinking water including biological and arsenic contamination are needed to reduce the severe health and economic impacts on the country. Climate change hazards are expected to exacerbate current human health issues and degradation of natural resources and should be addressed alongside such measures.
7. **Solid waste generation has increased substantially over the years.** Sound waste data is missing in the country and is often inconsistent and unverifiable. Waste generation is rapidly increasing in cities and towns due to urbanization, economic growth and changing lifestyles, as well as in tourism hotspots which have seen rapidly increasing numbers over the last decade⁶. During the last decade, household waste generation is estimated to have almost doubled in Vientiane (around 0.80 kg per person per day)⁷, same as in the previous decade⁸. As in many other developing countries, the major portion of municipal waste generated in Lao PDR is composed of organic materials. Food, garden, wood and green waste makes up 57 percent of the waste while dry recyclables such as glass, plastics, metal, paper and cardboard account for 22 percent of the waste.
8. **Solid waste collection and disposal are inadequate.** Waste collection in the country is largely limited to the urban centers but remains at low levels. While no accurate figures exist, it is estimated that in Vientiane city only around 30-50% of the waste generated, and only about 25% of household waste, is collected and transported to the landfill sites. Similar figures are estimated for secondary cities such as Savannakhet, Luang Prabang and Champasak. Due to the lack of appropriate collection systems, open burning, household burying, littering along roadsides and rivers, and dumping in vacant lands are widely spread practices in both urban and rural areas. Illegal dumpsites are also common in urban areas.⁹ Open waste burning contributes to respiratory infections for urban residents resulting in significant health damages and lost working days, and further aggravates the severe air pollution in the country.¹⁰ Poor and vulnerable populations are the most likely to suffer from inadequate sanitation due to uncollected waste, which can be a heavy financial burden through health-related expenditures and lost productivity.
9. **Even when solid waste is collected, disposal at open waste dumpsites cause severe environmental pollution.** While the amount of solid waste generation has substantially increased, the infrastructure for collection and sanitary

⁵ WB (20210). Environmental Challenges for Green Growth and Poverty Reduction: A Country Environmental Analysis for the Lao PDR.: Lao People's Democratic Republic State of Environment Report.

⁶ <https://www.nationthailand.com/business/30303622>

⁷WB (2021). Environmental Challenges for Green Growth and Poverty Reduction: A Country Environmental Analysis for the Lao PDR.

⁸ UNCRD (2013): Lao PDR Country Analysis Paper

⁹ 37 informal dumpsites were identified in Vientiane, followed by Thakhek (36 sites); Luang Prabang (26 sites); Pakse (17 sites); Vang Vieng (15 sites). WB (2021): Diagnostic Studies And Advisory Services To Support Lao PDR To Improve Solid And Plastic Waste Management

¹⁰ WB (2021). Environmental Challenges for Green Growth and Poverty Reduction: A Country Environmental Analysis for the Lao PDR.



disposal has not kept up with the demand, causing significant environmental problems. Landfills in Lao PDR are usually operated as open dumpsites without proper waste and leachate treatment, with the landfills of Vientiane or secondary cities such as Luang Prabang or Savannakhet being no exception. Waste dumping is done without compaction and disposal planning. Toxic waste components are contaminating surface and groundwater, including of adjacent farmland. Uncollected methane significantly contributes to national greenhouse gas emissions and results in a high risk of landfill fires.

10. **Women and children in the informal waste sector face multiple disadvantages and are exposed to health and social threats posed by inadequate solid waste management.** Their contributions to recovery and recycling of valuable plastics in the face of underdeveloped formal waste management systems are largely overlooked and unsupported. Improving the management of waste collection systems must consider the informal sector, where substantial amount of waste pickers are women, and work in hazardous and unsanitary environments without adequate protection and safety.
11. **Plastics pollution is an increasing concern in the country.** The amount of plastic waste is continuously increasing particularly in urban areas and often remains uncollected. In Vientiane, plastics constitute around 12 percent of the total waste stream.¹¹ In a series of studies, the priority plastic items ending up in the environment and waterways were identified as: drinking bottles; caps and lids; bags; cups; food containers; and straws. In major cities such as Vientiane, Savannakhet, and Pakse, plastic waste is a key factor in blockage of drainage systems causing sudden flooding during rains. In key tourism hotspots such as Luang Prabang or Vang Vieng, widespread plastics littering poses a substantial threat to the touristic value. Fishers throughout the country report catching plastics almost every single time they are out fishing, and a study¹² at the largest marshland of Vientiane found high amounts of microplastics in fish, surface water, and sediments. In addition, burning of plastics is widespread, contributing to air pollution and causing respiratory health issues. Lao PDR has seen an almost 10-fold increase in plastic waste imports from 2018 to 2019 due to the recent import regulations by China and other countries in the region.¹³ The quality and recyclability of the waste imports are unknown, and the capacity to cope with the large amounts of plastic waste in Lao PDR is not present.
12. **Improved environmental, pollution and solid waste management is emerging as a priority for the GoL, as pollution deriving from inadequate waste management and other sectors becomes increasingly apparent and costly.** These efforts are reflected by the adoption of the Green Growth Strategy 2030 which puts environmentally sustainable development at its core, as well as by the 9th National Socio-Economic Development Plan 2021-2025 currently under development, which promotes circular economy to reduce dependence on natural resources and reduce waste amounts. In 2019, the GoL signed the Bangkok Declaration on Combating Marine Debris jointly with ASEAN members which was a signal of the GoL's commitment to supporting regional efforts to reduce marine plastics pollution.
13. **However, a clear institutional and specific regulatory framework for solid waste management is missing.** At the national level, two main bodies are responsible for issues related to solid waste management: The Ministry of Public Works and Transport (MPWT), mainly responsible for construction of infrastructures, and the Ministry of Natural Resources and Environment (MoNRE), tasked with a regulatory, supervisory and supporting role. The specific responsibilities of different central governmental agencies are however not clearly defined. MoNRE's main tasks and responsibilities include the preparation of environmental laws and regulations, however few of these specifically target the solid waste sector. Urban Development Administrative Authorities (UDAAs), at provincial level are the

¹¹ WB (2021). Environmental Challenges for Green Growth and Poverty Reduction: A Country Environmental Analysis for the Lao PDR

¹² Insidealos (2020): Faculty of Environmental Sciences, National University of Lao

¹³ WB (2021): Diagnostic Studies And Advisory Services To Support Lao PDR To Improve Solid And Plastic Waste Management



main bodies tasked with solid waste management issues but undefined responsibility at the national level affects solid waste management at the local level in policy implementation, budget allocation, and provision of services.

14. **In addition, regulatory oversight of solid waste management is limited and local governments (LGs) lack capacities for solid waste operations. Solid waste services are often outsourced to the private sector with limited financial sustainability of operations.** While the responsibility for solid waste management lies with the province, UDAA's are not equipped with sufficient budget and staffing to provide the regulatory oversight and services required. UDAA's do not receive public funding from the government for solid waste management and generate revenue through waste collection and landfill tipping fees which are spent for O&M. Many UDAA's outsource (part of their) waste collection and disposal to private companies while sometimes also running direct operations in selected service areas. For example, in Vientiane around 10 collection companies currently operate in addition to UDAA's own collection services. Services are however hampered by the general (i) lack of performance benchmarks and key performance indicators in the contracts and lack of regulation, monitoring and reporting; and (ii) a lack of financial sustainability to extend services. Typically, waste fee collection is the responsibility of the provincial governments, who use the revenues for payment of services. In Lao PDR, waste collection companies collect fees directly from households typically upon collection of waste. There is no enforcement mechanism for households to pay for waste services, thus resulting in low waste fee collection rates. . Consequently, the collection companies limit their services to more profitable urban centers and areas with ability and willingness to pay as well as to public institutions, and the commercial sector in order to achieve cost recovery.
15. **The priority challenges within the solid waste sector can be summarized as follows.** (a) lack of a clear legal framework for solid waste and pollution management and policies and regulations on pollution and solid waste management; (b) lack of capacities at national level to provide regulatory oversight; (c) lack of monitoring and enforcement capacities for environmental pollution (d) local governments are in charge of solid waste management but lack of capacities for operations, monitoring and regulations; (e) lack of financial sustainability due to limited fee collection leading to partial services; (f) lack of proper treatment, recycling and disposal infrastructure causing environmental pollution and severe health and economic impacts; (g) strong increase of single-use plastic items and widespread plastics pollution. The project will be designed to address these key challenges and priorities at both national and local levels.

Relationship to CPF

16. **The operation is well aligned with the World Bank Group's Country Partnership Framework (CPF) 2017–2021 for Lao PDR (Report No. 110813-LA), and directly supports the Bank's goals on poverty reduction, shared prosperity, sustainability, and commitments on climate co-benefits.** The World Bank Group's goals of alleviating extreme poverty and boosting shared prosperity are intrinsic in solutions for addressing plastics pollution. Plastic litter impacts several key sectors in the country, most notably tourism, fisheries, and urban drainage/flooding. Development solutions that the WBG is supporting in these economies require adjustments in policies and regulations, investments in critical waste management infrastructures and influencing behavior change. The operation directly supports objective 3.1 (promoting environmental protection and sustainable natural resource management), as well as objective 1.3 (Investing in infrastructure for growth and inclusion) of the CPF and will contribute to tourism development with several key tourism destinations expected to be part of the project.
17. **Tackling marine plastics is identified as one of the EAP Region's strategic priorities¹⁴.** This proposed project is aligned to support World Bank Group engagement in the region – building on a strong base of analytical work and bringing critical financing to support policies and investments. The marine plastics agenda is also aligned to regional and corporate priorities relating to climate change (linkages to flood risk, plastics and greenhouse gas emissions), gender

¹⁴ The World Bank East Asia and Pacific Regional Update to the Board on February 26, 2019



(women entrepreneurs, and plastics), and private capital mobilization (crowding in private capital for emerging markets for plastics recycling/alternatives).

18. The project is also aligned with the **WBG Covid-19 Crisis Response Approach Paper**. Economic recovery plans could include new green jobs and green stimulus opportunities. Specifically, plastics waste collection, clean-up, recycling, and production of alternative products would create job opportunities and contribute to green economic recovery from COVID-19. Reducing plastic use and recovering and retaining plastic value in a low- technology environment are labor-intensive tasks. Many alternative materials to single-use plastic are not yet produced at scale, leaving an opportunity for locally made options.

C. Proposed Development Objective(s)

To improve environmental, waste and pollution management in Lao PDR.

Key Results (From PCN)

19. **The project will measure its success by multiple PDO Indicators**, including:
- (a) Improved national policies and regulatory instruments for solid waste and plastic management [Nr]
 - (b) Proportion of population in selected areas with regular household waste collection [percentage]
 - (c) Landfill disposal capacity operational per defined criteria [m3];
 - (d) Improved pollution monitoring network generating regular reports on PM2.5 and other key pollutants [Nr]

D. Concept Description

20. **The project aims to improve environmental, solid waste and plastics, and pollution management in Lao PDR**. It will support policy development and institutional strengthening at the national level to enhance regulatory oversight and planning of the solid waste sector, supporting environmental risk management and climate change actions, and enhance monitoring and regulation of key types of pollution in the country. At the provincial and district levels, the Project will focus on supporting improved solid waste services and increasing the financial and environmental sustainability of solid waste management operations through technical assistance and investments in infrastructure and equipment. The project will facilitate the creation of models for solid waste management in selected cities that can demonstrate improved and cost-effective performance and serve as inspirations for other cities. The project will seek to comprehensively support stakeholder collaboration across all aspects of the sector, most notably MONRE, MPWT, EPF, as well as local governments responsible for solid waste management, and will build the implementation arrangement on the mechanisms proven in other environmental projects in Lao PDR to facilitate high quality implementation, management and oversight of the program, including results monitoring and evaluation.
21. The project is part of a **Series of Projects** which support marine plastics solutions in Southeast Asia at the regional and national levels. The PDO of the regional program is “to support long-term solutions to reduce marine plastics through strengthening institutions, harmonizing policies, and catalyzing actions at the regional and national level in ASEAN”. In the **first Pillar**, the regional project will help to establish a regional platform for ASEAN to strengthen the institutional capacity, harmonize standards and guidelines and pilot innovative solutions on investments, financing and technologies. Subsequently, in the **second Pillar**, individual IDA and IBRD projects (including this Lao



Environmental and Waste Management Project (P175996)) target plastics-related investments and policy support as components or sub-components of the respective lending operations that align with the overall program objective and contribute to the transboundary benefits. The activities under the regional grant (Pillar 1) will be linked to supporting the identification/ development of investments under national projects under Pillar 2.

22. **The project area would cover selected provinces and districts across Lao PDR.** Criteria for selecting the project areas included: (i) consider northern provinces and districts and their secondary cities which may potentially experience economic and population growth from urban development including the Laos-China economic railway corridor; (ii) avoid duplication where similar activities are ongoing, supported by other development partners; and (iii) focus on tourism development areas¹⁵. Specific project sites for investments will be identified during project preparation. The preliminary list of provinces for project intervention include: Udomxay; Vientiane; Huaphan; Xayabouly; Salavanh; Xaysomboun; Luang Prabang; Savahnaket; Champasak; and Vientiane Capital prefecture.

23. **The PDO will be achieved through the implementation of the following components.**

24. **Component 1: National Policies and Institutional Capacity Development**

Component 1 will strengthen the policies, institutional framework, and capacities of central government agencies (particularly MONRE and MPWT) responsible for various technical and administrative aspects of environmental, pollution, solid waste and plastics management. The Component will be implemented through three sub-components and will build on the achievements made under Second Lao Environment and Social Project (P128393).

25. *Component 1A: Development of national solid waste policies, regulatory framework, and institutional capacities.*

This subcomponent will focus on strategic priorities to enhance the regulatory oversight, monitoring and enforcement of the solid waste sector, and will strengthen the institutional framework by delineating clear roles and responsibilities amongst key institutions. Activities here would include development and support implementation of ministerial decisions that would provide regulations for improving the performance and sustainability of solid waste services. These include operational and design standards; templates for tender documents, contracts and reporting; enforcement guidelines; guidelines for cost assessments, tariff structure, and financial models with cost recovery plan and strategies for leveraging additional private and public financing for solid waste management. Activities would also include capacity development of central institutions for improved planning and intergovernmental coordination.

26. *Component 1B: Development of plastic policies and legislation*

Sub-component 1B will finance the development and implementation of policy measures included in the National Plastics Action Plan (NPAP)¹⁶ to reduce plastics and plastics waste, reduce plastics leakage and environmental pollution, and increase reuse and recycling of plastic products. Policies and regulations will first focus on selected priority single-use plastics. A key element would be the support on regulations on the import of plastic waste addressing the drastic increase of plastic waste imports over recent years.¹⁷ This subcomponent will be closely linked

¹⁵ (i) Economically feasible; (ii) Sufficient capacity, operational budgets (or system to facilitate budget) and commitment to improve waste management infrastructure and services; (iii) No overlap with other projects with same activities; (iv) Complementary to other projects; (v) Strategic/ gov't priority; (vi) High-level and technical level commitment and Willingness to undertake reforms; (vii) Remaining capacity of current landfill (open dump) site + if need for new landfill or extension of current landfill (Component 3): availability of suitable land.

¹⁶ At this time, the NPAP is under development led by MONRE and supported by the World Bank and other development partners.

¹⁷ Plastics and solid waste ASA (P171011) and other studies will inform the identification of priority plastic items and high potential policy options.



to the regional ASEAN support under the SeA-MAP (P175659) project for the development of policy measures with regional dimension and enhancing the regional recycling market, and is therefore envisaged to leverage regional IDA.

27. *Component 1C: Strengthening pollution monitoring, environmental risk and climate change management*

Sub-component 1C will focus on increasing capacities in ministries to address some of the most severe sources of pollution in the country, including household and ambient air pollution, lead exposure and drinking water pollution including biological and arsenic contamination, and enhance environmental risk and climate change management. The subcomponent will support development of policies, regulations and low-cost interventions to reduce pollution levels in priority areas, and will establish and expand monitoring networks.¹⁸ For enhancing GoL capacity for environmental risk management, the project will support development and implementation of ministerial guidelines for ESIA implementation building on related activities under the Second Lao PDR Environment and Social Project (P128393). Two major activities on improving climate change management will include: (i) implementation and institutionalization of the climate and disaster risk screening (CDRS) tool through developing guidelines and providing technical assistance for implementation, and (ii) support for development of the implementation roadmap for Laos' long term decarbonization (net zero emissions by 2030) goal.

28. **Component 2: Integrated Support and Capacity Building for Local Government**

This component seeks to address one of the primary constraints to improving sector performance: the technical, organizational and financial capacity of local governments at provincial and district levels to efficiently provide solid waste services.

29. **The project intends to apply a tier-based system to adapt investments and TA support to different degrees taking into account local government's commitment and capacities.** Tier 1 would comprise a longer list of provinces and districts that will be supported with Technical Assistance. Tier 2 would comprise a subset of Tier 1 provinces and districts, and these would be supported with a limited set of investments, at first, to gradually enhance capacities that would justify further investments. This approach has been proven effective in similar World Bank financed projects (e.g. Tunisia Sustainable Municipal Solid Waste Management Project; Kazakhstan Hazardous and POPs Waste Management Project; Indonesia Improvement of Solid Waste Management to Support Regional and Metropolitan Cities; Ningbo Municipal Solid Waste Minimization and Recycling Project).

30. **The core focus of the component will be to strengthen the capacities of participating local governments for better solid waste planning, operational management, financial management, and monitoring.** TA and financing will be provided for: (i) establishment of adequate tariff models, waste fee collection systems, and service contracts including performance indicators; and (ii) establishment of pollution and waste monitoring and information systems comprising information on pollution and waste generation, collection and disposal, financial information on cost and revenues, and used to support waste fee collection. Under this component support for incorporating informal waste workers and wider communities into formal waste services will also be provided.

31. **The component will also support preparation of investments to be financed by the Project under Component 3.** This will include the provision of technical assistance for developing feasibility studies, detailed engineering designs for priority investments, site specific ESIA, and bidding documents.

32. **Component 3: Infrastructure investments for solid waste and plastic management**

¹⁸ Building on the extensive knowledge and recommendations developed under the WB Lao PDR Environmental Challenges for Green Growth report, and scaling-up air quality monitoring activities under LENS2.



Component 3 will finance priority low-cost infrastructure to improve effectiveness and efficiency of waste and plastics management to enhance services and environmental sustainability by reducing pollution caused by open burning and dumping of waste, uncollected leachate and methane, and plastics leakage. It will provide financing for selected local governments (Tier 2 provinces and districts) that have demonstrated sufficient capacity in solid waste management and commitment to justify investments. The Component shall consist of two sub-components:

33. *Component 3A: Priority lower-costs infrastructure investments in solid waste management*

Component 3A will provide financing for investments in all needed infrastructure aspects of solid waste management currently not in place, including waste collection, transport, transfer, treatment and composting, and disposal of waste at rehabilitated or new landfills to increase environmental sustainability. There will be a priority for regional landfills, serving more than one district and including surrounding, possibly more rural districts through the establishment of low-cost collection systems and transfer stations.

34. *Component 3B: Infrastructure investments in plastics management*

Component 3B will provide financing for investments specifically improving plastics waste management, reducing the amount of plastics disposed at landfills, increasing recycling rates, and reducing overall plastics leakage. Investments will also enhance opportunities for expanding plastic value chains. For these purposes, this component will include investments in sorting facilities; material recovery facilities (MRF); intermediate plastic waste treatment facilities; and possibly efficient and low-cost plastics collection and clean-up systems at priority (tourism) hotspots. This sub-component could potentially leverage additional regional IDA financing linked to the South East Asia Regional Program on Combatting Marine Plastics.

35. A key criterion for any investments (including 3A and 3B) will be the feasibility for cost recovery and local capacity for operations. Within this context, the types of investments may vary between selected LGs according to existing gaps and the local financial and technical capacities. Some LGs may benefit substantially from the provision of limited and partial investments to existing infrastructure to improve their collection, treatment, and operations at existing disposal sites (such as improvements in waste reception and disposal logistics, manual sorting facilities, leachate collection and treatment, landfill gas capture), construction of waste transfer stations, collection equipment, or waste sorting).

36. **Component 4: Project Coordination and Reporting.** This component will focus on interministerial coordination, progress reporting, and monitoring and evaluation. Strengthening implementation and management capacity will involve support for monitoring and evaluation systems for the proposed program, enhancing stakeholder's collaboration at all levels.

37. **Component 5. Contingent Emergency Response.** A Contingent Emergency Response Component (CERC) will be included in the Project. This component is designed to provide swift response in the event of an eligible crisis or emergency, by enabling the RGC to request the World Bank to reallocate project funds to support emergency response and reconstruction. The activation process and implementing arrangements for the component, list of activities that may be financed, and other required aspects will be further assessed during project preparation.



Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The project activities will be implemented nationwide on the part related to policy development and institutional strengthening under Component 1 and will involve multiple public sector agencies as well as the private sector. Under component 2 and 3, the project will be implemented in selected provinces and districts across Lao PDR which project locations are not yet confirmed. The typologies of the project activities have been preliminarily identified, based on which the project environmental and social (E&S) risk is deemed high.

The environmental risk is rated High taking into account an uncertainty due to limited availability of project information during concept stage, pre-existing environmental issues due to insufficient waste management in Lao PDR, and potential environmental risks and impacts from project activities. Since, project information regarding project locations, size and type of landfill/waste disposal and related facilities available at the concept stage is not sufficient to determine sensitivity of local environment conditions (e.g. affected population/habitats/species) and related impacts on the environment, the environmental risk rating will be re-visited before appraisal as project locations and details of components and activities are determined.

There are pre-existing environmental issues due to insufficient waste management including mixed of hazardous and domestic wastes, leakage of leachate/toxic waste components into soil, water resource, air pollution and landfill fire risks, etc. The project, by its nature, aims to address these pre-existing issues. Nevertheless, the project activities may cause diverse and significant environmental impacts which are primary related to the closure and rehabilitation of the existing dumps and construction of new landfills and related facilities. Risks/impacts during operations phase are likely to be continuous and long-term, and compounded by contextual environmental risks (e.g. extreme weather events) and institutional risks (e.g. capacity constraints pertaining to the operation of waste management facilities). Key environmental risks and impacts are associated with generation of leachate, landfill gas, litter, and dust from solid waste management operations and emergency event such as landfill fire. These risks and impacts include: degradation of local environmental quality (soil, groundwater and surface water, aquatic organism, vegetation, air and noise); local proliferation of flies, rodents and other disease-carrying vectors; workers exposure to health risk, etc. Potential impacts during construction include: (i) air and noise pollution from construction activities; (ii) soil and water resources pollution due to accidental spillage of oil and other lubricants and discharge of domestic sewage; and (iii) accumulation of construction and domestic wastes; and (iv) failure to ensure occupational health and safety.

The social risk classified as high. Whilst the project aims to deliver a range of benefits, project activities have the potential to generate significant social risks and impacts. These include: potential for opposition from communities neighbouring existing or new waste facilities and from waste-pickers who perceive project activities as a threat to their livelihoods; risk of impoverishment of vulnerable groups economically displaced in case of land acquisition for new landfills and/or recycling facilities; risk of not being able to find and agree an inclusive solution in compliance with the Environmental and Social Framework (ESF) for children waste-pickers; labour and working condition risks related to the construction and operation of solid waste disposal sites and recycling facilities; impacts related to increases in heavy traffic; impacts from exposure to legacy pollution of groundwater resources; potential risk for increases in substance abuse; and risk of increased gender-based violence from workers and their proximity to vulnerable groups.



Nine of the ten Environmental and Social Standards (ESS) are considered relevant. Relevance of ESS9 on Financial Intermediaries needs to be determined during project preparation.

The Client have had experiences with the World Bank safeguard policies but has limited familiarity with the ESF and the capacity for managing social aspects related to solid waste management is low. The client will be challenged in (i) coordinating among different institutional levels (central, province, and district level) within the same ministries and across ministries; and (ii) managing and mitigating livelihood impacts to informal waste pickers, many of whom are socially marginalized and vulnerable. Child protection measures will need to be in place as some of the waste-pickers are children. Meaningful engagement will be key for managing concerns as well as the potential risks and impacts resulting from the project activities. The engagement will need to take into consideration consent, language, literacy, access to information, vulnerability, child protection, and cultural needs of the various groups including ethnic groups. Specific institutional capacity strengthening/ building measures such as the provision of additional resources and training needs will be identified and presented in the E&S instruments, including the Environmental and Social Commitment Plan (ESCP) to ensure ownership and sustainability of the resources.

A standalone Stakeholder Engagement Plan (SEP) including a Grievance Redress Mechanism (GRM) will be prepared prior to appraisal to guide the Borrower to identify stakeholders, build and maintain a constructive relationship with them, and to meet communication and disclosure requirements with a particular focus on project-affected parties.

In addition to the ESCP and the SEP, the following instruments will be prepared, disclosed, and consulted upon prior to appraisal:

(i) An Environmental and Social Management Framework (ESMF): The ESMF will set out the principles and guidelines to screen and assess the environmental and social risks and impacts for all components including site-specific investment and TA activities in a manner consistent with ESSs requirements, and Lao EIA procedure. On social aspects the ESMF will reference the relevant sections of the SIA and SMP. The ESMF will provide guidance for preparation of site specific ESIA/ESMPs with relevant provisions for implementation budget and proposed institutional mechanisms and will specifically refer to WBG Environmental Health and Safety Guidelines (EHSG) for Waste Management Facilities. The ESMF will also include Rapid Cumulative Impact Assessment, templates for ESMP for small investments, and ToR for the proposed Strategic Environmental and Social Assessment (SESA) to be carried out during implementation. For the CERC component, an addendum to the ESMF or a specific CERC-ESMF will be prepared specifically for the CERC and disclosed. Timing for the preparation of ES instruments for the CERC will be assessed during project preparation.

(ii) A standalone Social Impact Assessment (SIA) and Social Management Plan (SMP). The SIA will primarily focus on the infrastructure investments under component 3. Based on the findings of the project SIA, an SMP will be prepared to manage identified impacts. The SMP will include Labour Management Procedures (LMP), including a Worker Grievance Procedure; Community Health and Safety Plan (CHSP); as applicable - Resettlement Policy Framework (RPF) also covering livelihoods restoration as an overarching instrument and to inform site specific plans (Resettlement Action Plans (RAPs) or Livelihoods Restoration Plans (LRPs); and, an Ethnic Group Development Framework (EGDF) as overarching instrument and to inform Ethnic Group Development Plans (EGDPs). The SMP will also include budget, staffing, and operational arrangements for project social risk management, including a capacity assessment and training plan.

(iii) A preliminary ESIA for one land fill site that will be identified during project preparation. The SIA-SMP will feed into the preliminary ESIA.



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