

**PROGRAM INFORMATION DOCUMENT (PID)  
APPRAISAL STAGE**

January 29, 2017  
Report No.: 113324

<b>Operation Name</b>	Lao First Programmatic Green Growth DPO
<b>Region</b>	EAST ASIA AND PACIFIC
<b>Country</b>	Lao People's Democratic Republic
<b>Sector</b>	General agriculture, fishing and forestry sector (60%); Energy efficiency in Heat and Power (15%); Irrigation and drainage (15%); Other Renewable Energy (10%)
<b>Operation ID</b>	P159956
<b>Lending Instrument</b>	Development Policy Financing
<b>Borrower(s)</b>	Ministry of Finance
<b>Implementing Agency</b>	Ministry of Planning and Investment
<b>Date PID Prepared</b>	January 29, 2017
<b>Date of Appraisal</b>	January 30 – February 3, 2017
<b>Estimated Date of Board Approval</b>	May 31, 2017
<b>Corporate Review Decision</b>	Following the corporate review, the decision was taken to proceed with the preparation of the operation.

## I. Country and Sector Background

1. **Lao PDR has achieved rapid economic growth in recent years, and poverty has declined, but inequality has increased and natural resources are being depleted.** With an average annual growth rate of 7.8 percent over the last decade, Lao PDR was the second fastest growing economy in the rapidly growing East Asia and Pacific (EAP) region. Between 2002/03 and 2012/13, absolute poverty, based on the national poverty line, declined from 33.5 percent to 23.2 percent of the population. While notable, this reduction in poverty was modest, relative to the high aggregate growth over that period, when compared to regional peers. Inequality widened, with the Gini coefficient increasing from 32.5 to 36.2, since the gains for the bottom 40 percent were lower than for the rest of the population. The Lao PDR's dependency on natural assets, geography, and economic and social legacies together have shaped a development experience of strong growth with limited inclusion, and considerable macroeconomic and environmental risks to sustainability.

2. **Economic growth in Lao PDR has relied on the exploitation of its natural resources and is not sustainable, because of the depletion of the resources and increasing adverse environmental effects.** In the mid-2000s, mining was the main driver of growth, later followed by hydropower generation—including for neighboring countries. Recently, a structural transformation to service sectors, especially in tourism, has broadened the growth base. Total revenue earned from tourism, which is mainly nature and culture based, has increased constantly year by year, from USD 406 million in 2011 to USD 725 million in 2014.<sup>1</sup> While illegal logging and uncontrolled agricultural expansion may have contributed to economic growth, they are also associated with negative environmental impacts. These impacts can be a constraint for new growth opportunities, including tourism or green products that depend on environmental quality. At the same time, the unsustainable use of natural resources, such as water and forests, can make it impossible to generate future growth from these

<sup>1</sup> In 2014, there were a total of 1,916 tourist attractions, of which, 1,093 are natural attraction sites, 541 are cultural attraction sites and 282 are historical attraction sites (Government of Lao PDR, 8<sup>th</sup> NSEDP, 2015).

resources.

3. **Accordingly, environmental measures for Lao PDR indicate growing pressures, including increasing public health impacts and economic costs.** In the 2016 Yale University Environmental Performance Index, Lao PDR ranks 148<sup>th</sup> out of 180 countries. For ambient and household air pollution, Lao PDR is among the five lowest-ranking countries. The estimated annual cost of environmental health effects in Lao PDR was equivalent to 13.3% of GDP (2015). Household air pollution (HAP) accounts for 37% of these costs, followed by water pollution, sanitation and hygiene (WASH) at 25%, and outdoor PM2.5 ambient air pollution (AAP) and lead (Pb) exposure at 19% each<sup>2</sup>. Between 2000 and 2014, Lao PDR lost 1.6 million ha of its tree cover—10 percent of its total area under tree cover in 2000. Overall, the country’s annual depletion of natural capital of about US\$120 per capita since 2010 (measured in 2011 dollars) has not been compensated for by investments in new forms of financial, physical, and human capital—thereby undermining future economic growth. In addition, annual expected losses from natural disasters range between 3.3% and 4.1% of GDP, which could be further exacerbated by climate change.

4. **This unsustainable and highly vulnerable growth pattern is also a risk for the country’s poor people.** A significant part of the population, especially the rural poor, depends on natural resources including timber and non-timber forest resources and fish for their income and nutrition. Poor people are often highly exposed to environmental pollution and its health effects due to their reliance on wood and charcoal for cooking, limited access to safe drinking water and adequate sanitation, and living closer to contaminated soil and surface water. Those environmental health risks affect development and productivity, making it harder for vulnerable groups to overcome poverty. Accordingly, an earlier study finds that poverty is correlated with deforestation, fragile soils, indoor air pollution, unsafe water and sanitation, and outdoor air pollution at the district level. At the same time, climate events and natural disasters disproportionately affect poor people, who often have limited means to cope and adapt.

5. **A transition to green growth will be key for Lao PDR, while maintaining strong economic growth, promote equal opportunities and income growth for more people, and protect the environment and human health.**<sup>3</sup> Green growth is cleaner, more resource-efficient, and more resilient. It reduces the environmental impact of economic activities, such as hydropower, mining, logging, and agriculture, thereby reducing the economic costs associated with health effects and loss of ecosystem functions. Enhanced environmental quality can help to generate new growth opportunities from activities that depend on a green vision, such as tourism and the production and export of green agricultural and forestry products. Green growth also generates opportunities for sustaining economic benefits in the long term by more efficiently managing the resources these sectors depend on, such as water and forests. Many of these benefits can directly benefit poorer people, who often directly depend on, and work in, natural resource sectors, or they can be channeled towards actions that help to make growth more inclusive.

6. **There is a strategic opportunity to support the GoL to promote a greener growth path and help the country meet sustainable development goals (SDGs).** The Vision 2030 and the National Socio-Economic Development Strategy (2016–2025), by providing the guidepost for five-year National Socio-Economic Development Plans (NSEDP), seek to attain the level of an upper-middle-income country through a green-growth orientation. Similarly, the SDGs are being mainstreamed into the 8<sup>th</sup> NSEDP, with Lao PDR being one of the first United Nations Member States to “localize the SDGs.” With a number of ongoing investment projects and advisory services that are supportive of the green-growth agenda, there is a strong basis for scaling up this support. Transitioning towards green growth also contributes to climate action in Lao PDR and the broader

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<sup>2</sup> World Bank team estimates.

<sup>3</sup> A transition to green growth requires actions to reduce pollution and emissions (for example, air, water and soil pollutants.) through cleaner consumption and production patterns, to manage natural capital (for example, land, forests and water) more sustainably and efficiently, and reduce vulnerabilities to climate and disaster risks (for example, flooding, storms, and warming temperatures). Green growth is a pathway towards sustainable development.

Mekong region. The reduction of many air pollutants (such as ozone, methane and black carbon) and improved forest management are related to climate-change mitigation co-benefits. Hydropower generated in Lao PDR is also a crucial element of the emissions-reduction trajectory not only in Lao PDR, but also in Vietnam and Thailand.

7. **This PID describes a Development Policy Credit in the amount equivalent to US\$40 million to the GoL, the first in a series of three single-tranche programmatic Development Policy Operations.** The DPO series is expected to support the GoL in adopting key policy reforms for consolidating green growth across the national development strategy and contributing to improving sustainability and quality of the country's economic growth.

8. **The Macroeconomic Policy Framework points to strong expansion in the Lao PDR's economy in recent years.** GDP growth averaged 8.0 percent per annum since 2000, with GNI per capita reaching US\$1,740 in 2015 and making Lao PDR a lower-middle-income country. Natural resources (accounting for 44 percent of total wealth in 2014) were a key driver of growth during this period. Initially, growth was driven by mining; however, a decline in prices, as well as sector-regulation issues, lowered its contribution. Also, mining may have resulted in unmitigated environmental and social impacts in some cases. Construction of power plants, largely expected to meet demand in neighboring countries, subsequently emerged as the main engine of growth. Lao PDR's installed capacity increased ten-fold between 2000 and 2016 to above 6,000MW, mostly through engagement with private, largely foreign, investors. While remaining robust, GDP growth during 2015 and 2016 has been below historical averages. The decline in commodity prices, unfavorable weather, and some fiscal consolidation resulted in GDP growth moderating to around 7.4 percent in 2015. The prolonged weakness in commodity prices and the completion of few large projects, as well as efforts to more effectively deal with illegal logging, lowered the growth rate for 2016 to around 7 percent.

9. **While the macroeconomic environment remains challenging, the evolving macroeconomic framework has improved compared to a few years ago and can be considered adequate for the purposes of the proposed DPO series.** On the one hand, the fiscal and current account deficits and debt levels are high and will remain elevated in the near term. On the other, the proposed fiscal measures (removal of exemptions, expanding tax base, strengthening tax administration) and financial sector policies (restructuring of weak banks, better regulation and supervision of banks) are consistent and together with a stronger debt management function can stabilize and lower debt levels and improve sustainability prospects over the medium term. Recent efforts on the public finance management agenda, the elimination of some tax exemptions and the establishment of a National Economic Steering Committee to better coordinate economic policies are strengthening the credibility of the program. Admittedly, the track record is yet to be firmly established, and the proposed programmatic series provides an important opportunity to advance the policy dialogue, including through inclusion of selected measures in the DPO program.

## II. Operation Objectives

10. **The proposed DPO series supports policy reforms are closely linked with the strategic priorities set by the 8<sup>th</sup> NSEDP (2016-2020), supporting the GoL in strengthening the foundations and accelerating implementation of its green growth agenda.** The reform program is directly linked to Outcome 3 to effectively protect and utilize natural resources and the environment according to green growth and sustainability principles. It also supports Outcome 1 to promote continued, firm and inclusive growth through maintaining macroeconomic stability, diversification into non-extractive resource sectors (such as nature-based tourism), and improved market access (by improving regional agriculture standards).

11. **The Program Development Objective of the DPO series and its first operation (DPO1) is to support the GoL in lowering macroeconomic risks and consolidating its pathway towards green growth.** The reform program consists of three pillars. Pillar 1 supports efforts to reduce risks to macroeconomic stability. Pillar 2

establishes the foundations of and cross-sectoral instruments for green growth planning, financing and monitoring, including decision-making processes to make economic activities and investments cleaner, more resource-efficient, and more resilient. Pillars 2 and 3 aim to consolidate green growth principles in the national development agenda and in selected sectors, promoting sustainable use of the country's key natural assets, water and forests, while developing cleaner production and consumption systems through less polluting agricultural production and improved management and monitoring of pollution.

### **III. Preliminary Description**

#### **Pillar 1. Strengthening prospects for fiscal sustainability and financial sector stability**

##### ***Policy Track 1.1. Lowering risks to macroeconomic stability***

12. **DPO1 Prior Action #1:** As a range of macroeconomic risks threatens development progress and sustainability prospects, the GoL has taken steps to support fiscal consolidation. With the DPO support, the GoL has taken actions to phase out tariff exemptions on fuel imports for investment projects, limit civil service intake and improve VAT collection. The DPO series is supporting the GoL's efforts in eliminating the tariff exemptions on fuel imports for investment projects as well as in improving enforcement of the value added tax through adopting a new VAT Implementing Instruction. On the expenditure side, the proposed DPO supports the government policy to keep the civil service intake quota to 5,000 workers (gross).

13. The anticipated results, baselines and targets for Pillar 1 are the following:

- Increase in tax revenues (Baseline: 14.6% of GDP in FY15/16; Target: 16.7% of GDP in FY20);
- Reduction in public wage bill (Baseline: 8.4% of GDP in FY15/16; Target: 7.4% of GDP in FY20);
- Reduction in public debt (Baseline: 68% of GDP in 2016; Target: 65% of GDP in 2020); and,
- Public reporting of compliance with regulations on the Capital Adequacy Ratio, by type of Banks (Baseline: Not reported; Target: at least regulatory minimum).

#### **Pillar 2. Consolidating green growth principles across the national development strategy**

##### ***Policy Track 1.2. Building the foundation for green growth planning and monitoring***

14. **DPO1 Prior Action #2:** The lack of institutions and processes for planning and financing constrains Lao PDR's capacity to realize its vision for green growth. Incorporating green growth principles into the national developing planning and budgeting process will set the overall direction to make growth strategies greener, more resource-efficient and resilient. The National Assembly has adopted the 8<sup>th</sup> NSEDP in which Outcome 3 and Outputs 1 to 3 are associated with environmental protection and sustainable natural resources management. The Prime Minister has also established the National Green Growth Steering Committee to oversee the planning, implementation, monitoring and evaluation (M&E) of the country's green growth agenda. DPO1 is expected to support the GoL in development planning by (i) integrating green growth principles into the NSEDP, and (ii) establishing cross-sectoral policies aimed at reducing environmental impacts of key economic activities and creating opportunities for sustained growth from the sustainable use of natural resources and a greener image of the country.

##### ***Policy Track 1.3. Strengthening country instruments for cleaner and resilient green growth financing***

15. **DPO1 Prior Action #3:** The GoL has taken some preliminary steps to strengthen its green fiscal policies in response to the need that financing ability be augmented to support the transition towards green growth, including the adoption of a decree restructuring the Environment Protection Fund (EPF). Throughout the DPO

series, the GoL will seek to diversify and expand the EPF funding sources – ranging from donor contributions to environmental taxes, charges, fees and fines, through (i) strengthening the complementarities between different fiscal instruments; (ii) improving the enforcement of existing legislation on selected taxes, charges, fees, or fines; and (iii) strengthening the transparency for the resources collected for the EPF and their uses.

***Policy Track 1.4. Shifting towards decision-making informed by priorities for environmental protection and climate resilience***

16. **DPO1 Prior Action #4.** The existing planning and decision-making on public and private investments lack rigorous integration of relevant green growth. The DPO series is expected to address policy, legal, and regulatory gaps that have prevented the integration of green growth-related assessments and information into investment planning. The GoL has started to strengthen the legal framework for upstream planning with tools such as the SEA. In particular, the DPO series will assist the GoL in introducing a legal requirement for Strategic Environmental Assessments (SEAs) to include environmental considerations in policies, strategies, programs, and plans.

17. **DPO1 Prior Action #5.** Climate and disaster risks are not yet systematically integrated into public investment project (PIP) planning in the Lao DPR. The failure to account for such risks already resulted in considerable impacts on projects and increased budget needs. Through DPO1, the Ministry of Planning and Investment (MPI) is expected to establish requirements for the inclusion of climate resilience and disaster risk considerations into MPI’s assessment of project proposals for the annual PIP budget, including through modifications of the formats in the PIP manuals. These requirements will guide national ministries, organizations/agencies or local governments in the preparation of additional information to integrate climate and disaster risks into PIP proposals.

18. The expected results, baselines and targets for Pillar 2 are the following:

- Disclosure of monitoring and evaluation results of the green growth priorities established in the National Green Growth Strategy, as part of the public consultation process of the 9<sup>th</sup> NSEDP (2021-2025) (Baseline: No; Target: Yes);
- Number of revenue sources of the Environment Protection Fund (Baseline: 3 – contributions from development partners; contributions from business, and endowment fund; Target: 5);
- Disclosure of annual financial audit of the EPF (Baseline: No; Target: Yes);
- Number of strategic environmental assessments undertaken for public policies, programs, and strategic plans (Baseline: 0; Target: 1 – SEA for the National Green Growth Strategy);
- Share of investment projects that require an ESIA (Group 2 Projects listed in Ministerial Agreement No. 8056/MONRE 2013), with complete disclosure of relevant information (i.e. screening, scoping, impact assessment, and approval), through the integrated database and public information platform, prior to approval of concessional agreements (Baseline: 0; Target: 90% of Group 2 projects); and,
- Share of approved road maintenance projects with climate resilience and disaster risks considerations envisaged in the *Annual Road Maintenance Plan and Budget* that are verified by technical audits. (Baseline: 0; Target: 50% of approved road maintenance projects).

**Pillar 3. Promoting the first-stage transformation of green growth in selected sectors**

***Policy Track 2.1. Shifting towards integrated and sustainable water resources management and uses***

19. While water and water resources are among the key natural assets underpinning Lao PDR’s economic growth, an organized system to management those resources sustainably is missing. With growing demand and

exacerbating quantity and quality of water, the GoL is preparing to introduce a governance system that is based on the integrated water resources management (IWRM) approach. There is no prior action associated with this component in DPO1. The DPO series is expected to further ensure core principles to guide IWRM by overcoming institutional constraints for the usage and exchange of data and information among different agencies and stakeholders, the formulation of river basin management plans (RBMPs) and the issuance of water use certificates to define their rights and responsibilities of water users.

### ***Policy Track 2.2: Improving Forest Resources Management***

20. **DPO1 Prior Action #6.** Lao PDR's forest and their biodiversity are being threatened and degraded, with infrastructure areas being the largest source of exported timber, enabled by conflicting, discretionary, or ambitious regulation on logging. The GoL has issued a Prime Minister Order on *Strengthening Strictness of Timber Harvest Management and Inspection, Timber Transport and Business* in order to control illegal logging in infrastructure areas and timber harvesting, processing and trade. DPO1 is expected to support the GoL to set up an improved legal and institutional framework for forests and for protected areas while addressing the immediate challenges of salvage logging, timber certification and ecotourism.

21. **DPO1 Prior Action #7.** Lao PDR's national protected areas (NPAs) hold substantial potential for enhancing local communities' livelihoods and increasing the health of exceptional biodiversity resources; however, there are institutional constraints. The GoL has issued a Prime Minister Decree to pilot a national park reform. DPO1 is expected to support such reform by revising the decree that originally established the Watershed Management and Protection Authority (WMPA). The new decree (i) updates the mandate of the WMPA by anchoring accountability at the national level in MAF, (ii) clarifies the roles and rights of communities, (iii) transforms the Nam Theun 2 Watershed Area into the Nakai-Nam Theun National Park, and the WMPA into the Nakai-Nam Theun National Park Authority, and (iv) defines the rules and principles for the management of the Nakai-Nam Theun National Park.

### ***Policy Track 2.3. Leveraging green growth policies to control non-point source pollution***

22. **DPO1 Prior Action #8.** Improper management of pests and use of toxic pesticides in agriculture hinder Lao produce's access to lucrative export markets and cause public health and environmental damages. A stronger regulatory framework will gradually help reduce the availability on the market of banned and prohibited pesticides and contribute to enhance management, monitoring and inspection of chemicals in the Lao PDR. DPO1 supports the Law on Chemicals, which, adopted by the National Assembly in November 2016, establishes provisions on the management, monitoring, and inspection of chemicals for minimizing health risks and promoting cleaner production. This Law represents the first unified overarching regulation of all chemicals in Lao PDR, including pesticides and entrusts MAF with the right and duty to manage and monitor chemicals used as pesticides. DPO1 also supports the Law on Plant Protection and Quarantine, which was also adopted by the National Assembly in November 2016 and introduces international standards on phytosanitary measures, including pest management.

### ***Policy Track 2.4. Strengthening pollution monitoring and management***

23. **DPO1 Prior Action #9.** Environmental pollution including air and water pollution and lead poisoning, exacerbated by inadequate mitigation measures and sanitation infrastructure, is disproportionately affecting the poor and the vulnerable in the Lao PDR. The GoL, through MONRE, has issued a ministerial decision to establish national environmental standards to control air and water pollution, including threshold parameters lead in air and water. DPO1 is expected to support the GoL in establishing more stringent air quality (e.g. for PM<sub>2.5</sub> and Pb) and water quality standards as part of the *National Environmental Quality Standards* (NEQS).

24. The anticipated results, baselines and targets for Pillar 3 are the following:

- Number of river basins that meet the minimum flow requirements set out in their respective River Basin Plan (Baseline: 0; Target: 1);
- Hectares of production forest areas (PFAs) with certified Sustainable Forest Management operations based on Lao PDR regulations (Baseline: 10,949 hectares in 2 PFAs; Target: 230,000 hectares in 4 PFAs);
- Number of national parks where progress in reaching management objectives is at least moderately satisfactory, as measured by the Management Effectiveness Tracking Tool (METT). (Baseline: 0; Target: 2);
- Number of inspections by MAF of pesticide sellers for compliance with pesticide regulations per year (Baseline: 0; Target: 140 inspections per year);
- Number of Priority Pollution Watch Sites for which monitoring reports (including at least PM2.5, arsenic, lead, and pathogens concentrations) are regularly updated and publicly disclosed (Baseline: 0; Target: 3); and,
- Percentage of legally imported paint brands offering unleaded paint in the national market (Baseline: 0; Target: 100%).

#### **IV. Poverty and Social Impacts and Environment Aspects**

25. The Poverty and Social Impact Analysis (PSIA) conducted by the Bank found that all policy actions supported by this operation are expected to have a positive impact in reducing poverty and social inequalities. The adoption of Outcome 3 of the 8<sup>th</sup> NSEDP and the new legal framework on SEAs (that is, prior actions 2 and 4, respectively) are likely to have significant positive poverty and social effects. These positive effects are associated with the protection of natural assets and resources that are critical to the livelihoods of the poor and the vulnerable, the creation of employment opportunities in green industries, and increased resilience to climate change and natural hazards. Although prior actions 2, 6 and 7 may cause negative social effects, these potential implications are not significant due to additional interventions that are expected to be carried out by the GoL in order to: (i) better understand those effects; and (ii) identify and design interventions to address those negative implications. Overall, the Bank team found that the proposed policy reforms reviewed in the PSIA are likely to have an overall positive impact on people including poor and vulnerable households. The potential impacted identified through this PSIA will mainly occur during the policy implementation phase. Key barriers to effective implementation have been taken into account and additional analysis will be carried out to make sure that critical elements for socially equitable green growth be considered during policy design.

26. The Policy Strategic Environmental Analysis (PSEA) conducted by the Bank found that the policy actions supported by the DPO series and DPO1 are expected to have positive effects and no significant negative effects in Lao PDR's environment, natural resources, and forests, as a result of updated laws and regulations on key environmental management issues, such as strategic environmental assessment, water management, chemicals, air and water pollution, and deforestation control. Environmental management will also benefit from the multi-sectoral actions envisaged in the 8<sup>th</sup> NSEDP and public investments financed through EPF projects. Likely positive effects also include increase in forest quality and cover; improvement in biodiversity standing and wildlife populations; maintenance of environment flow from watersheds; more equitable use of water between users; decrease in pollution from pesticides and industrial discharges; and, enhanced resilience of public infrastructure and production activities to natural disasters. As a result, the DPO series is expected to contribute to improved environmental governance and green growth opportunities, improved public health, cleaner technologies and production, and climate change mitigation and adaptation. For gaps that have not been fully considered or addressed by the GoL, the PSEA also produced recommendations to incorporate environmental considerations in the DPO series or in the environmental dialogue between the GoL and the Bank.

#### **V. Tentative financing**

Source:		(\$m.)
International Development Association (IDA)		40.00
Borrower/Recipient		
Others (specify)		
	Total	40.00

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