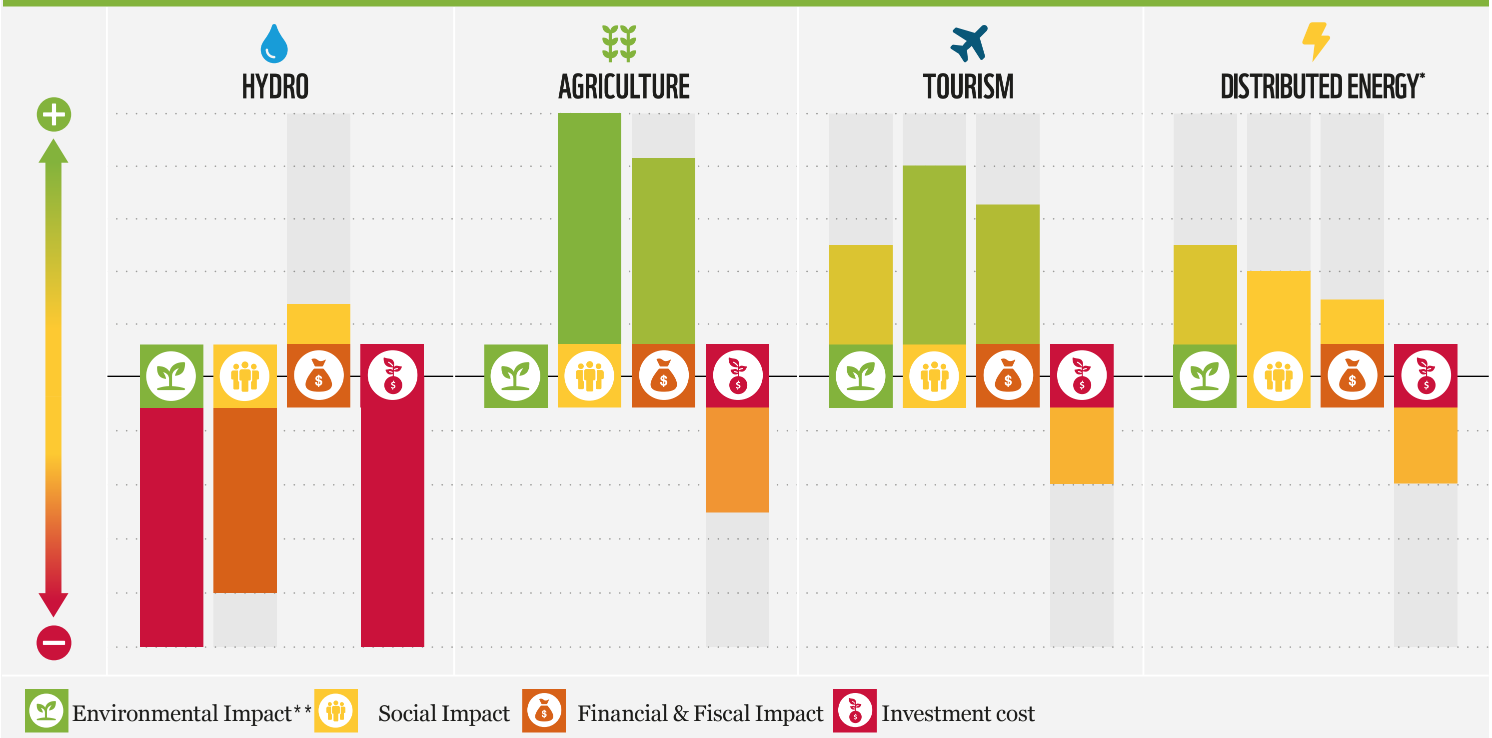
ALTERNATIVE PATHWAYS TO SECURING FOREIGN EXCHANGE REVENUE FOR LAO PDR - EXECUTIVE SUMMARY

Lao People's Democratic Republic's (Lao PDR) rapid economic growth over the past twenty years has been driven by the leveraging of the country's natural resources, with significant investments in the development of hydropower dams, mines and transport sector infrastructure. Much of this investment was undertaken with external parties in public-private partnerships, and involved significant debt commitments on the part of the government.

As these commitments accumulated, government expenditure was increasingly dedicated to debt service, leaving the fiscal position fragile, with little margin for safety from unanticipated shocks. The combined shocks of the Covid-19 pandemic and the conflict between Russia and Ukraine has disrupted economies globally, causing sharp declines in revenue as well as driving inflation in essential commodities such as fuel. In Lao PDR, the timing of these shocks was particularly unfortunate, as they took place in the runup to a period of sharply increased debt service expenses when public finances were already under strain.

This document highlights possible avenues for capital-light public sector focus and investment that may forge alternative pathways to securing foreign exchange revenue over the short to medium term. Given current fiscal constraints faced by the government, now may be the right time for Lao PDR to shift away from its focus on capital-intensive hydropower development.

SELECTED INDICATORS ARE HIGHLIGHTED TO DEMONSTRATE THE COMPARABLE ADVANTAGE OF FOUR ECONOMIC PATHWAYS TO FOREX FOR LAO PDR.



*Sustainable small, grid-connected or distribution system-connected devices e.g. small solar, wind, hydro and biogas
**This figure combines environmental and conservation impact based on proposed sustainable opportunities

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LAO PDR HYDROPOWER STRATEGY

Lao PDR's "Battery of Southeast Asia" strategy aims to leverage its rich endowment of undeveloped hydropower potential. It seeks to promote energy for export to generate the revenue needed to meet national development objectives such as reducing poverty. As of 2022, Lao PDR had 73 hydropower plants in operation, 43 under construction, and as many as 280 more proposed or at some stage of the planning process.

73 PLANTS IN OPERATION

43 UNDER CONSTRUCTION

280 PROPOSED OR PLANNED

FISCAL IMPACTS

Heavy investment into electricity generation and other infrastructure such as the Lao-China Railway has required the government of Lao PDR (GoL) to secure capital from external lenders at both concessional and market rates, with the country's debt to GDP ratio forecast to exceed 100 per cent by end-2022. As a result, Lao PDR's debt service expense is set to rise sharply, averaging about US$1.3b annually from 2022-2026. This may be as much as 39 per cent of government revenue over the period. From a revenue standpoint, it does not appear feasible for hydropower export revenue alone to support debt service costs in the short to medium term. According to the World Bank, the Lao PDR Ministry of Finance estimates that total revenues attributable to the power sector are below 10 per cent of government revenue, mainly due to government incentives (tax holidays, low royalty rates, etc.) for projects in their first 5-10 years of operation.

>100% DEBT TO GDP RATIO (END-2022)

$1.3B AVERAGE DEBT SERVICE EXPENSE (2022-2026)

39% OF GOVERNMENT REVENUE

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ENVIRONMENTAL & SOCIAL IMPACTS

As is inevitable with any major strategy, the execution of Lao PDR's hydropower strategy has generated positive and negative impacts beyond the financial, in terms of society and the environment, and carries with it certain risks. Positive impacts from the hydropower programme are largely social, and come from infrastructure development, the temporary jobs created during their construction, the developmental benefits stemming from national electrification, and potential community income from recreation and tourism business opportunities connected with dam reservoirs.

Negative impacts are both social and environmental. Social impacts include the relocation of affected communities, the disruption of livelihoods and food security resulting from the destruction of fisheries and the potential inundation of agricultural land. Environmental impacts include the blocking of fish migration, sediment flow and nutrient transfer, as well as changes to the river's natural hydrological flows, affecting all users of water resources and ecosystems.

RISKS

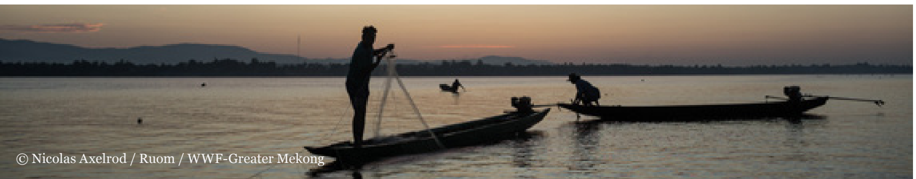
In pursuing its hydropower development strategy, Lao PDR faces a number of risks, both short-term and long-term.

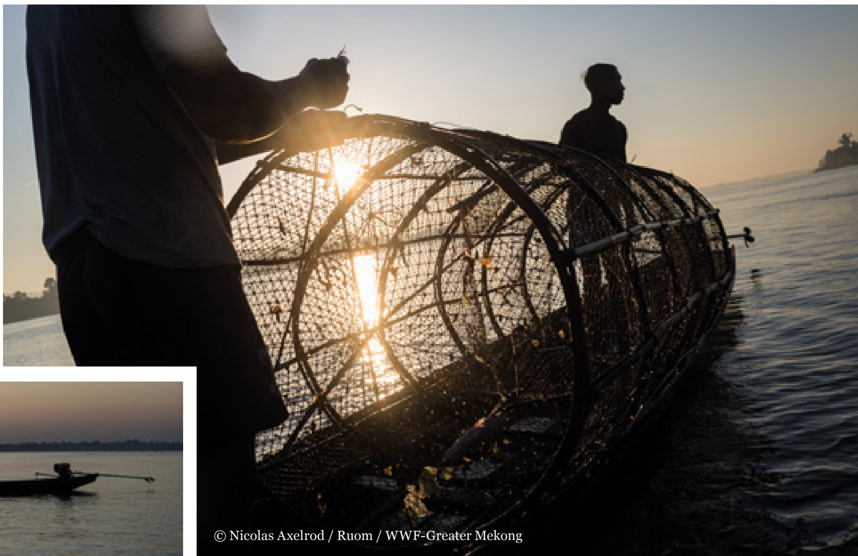
- **Export demand -** As the primary customer, Thailand's demand situation is critical to Lao PDR's electricity export performance. Factors that may affect Thai demand include: changes to Thailand's national power reserve margin, currently well above global norms; changes to the Thai government's stance on mainstream Mekong dams; and the domestic expansion of rooftop and/or distributed solar generation. Environmental, social and governance (ESG) concerns may also affect demand from new regional interconnection customers such as Singapore, particularly regarding the environmental and population impacts of new dams and the inclusion of coal generation in the export supply.

- **Climate change -** Climate change poses numerous risks to hydropower generation, including performance risks from water supply, reservoir life risks from sediment accumulation, safety risks from extreme flooding events, risks to environmental management, and risks from changing patterns of water demand.

- **Water Supply -** In addition to supply risks caused by climate change, upstream Mekong dams in China also pose risks to the supply of water available for generation. Electricity production may also be affected by required environmental mitigation measures, and may itself affect agriculture and aquaculture in the surrounding areas upstream and downstream.

- **Governance and Management -** The extensive suite of large hydropower projects in operation and under construction in Lao PDR requires a sophisticated governance system. In its absence, safety risks are exacerbated and economic considerations are more difficult to balance against environmental and social consequences.





POTENTIAL NON-HYDROPOWER REVENUE GENERATION OPPORTUNITIES

The current macro situation, particularly with respect to foreign exchange, highlights the importance of continuing to diversify revenue sources to fund national development and poverty alleviation. GoL has highlighted the agriculture and tourism sectors as having high labor force participation rates and foreign exchange earning potential.

Revenue from these two sectors is likely to grow sharply in the immediate term as part of the emergence from pandemic restrictions, combined with the inauguration of the Lao-China Railway. However, fully capturing growth opportunities will require investment in their enabling environments as well as in marketing and promotion. The fiscal situation over the short to medium term does not appear to allow for the kind of capital-heavy investment needed for infrastructure development in the power sector. In contrast, the investment requirements of the agriculture and tourism sectors are more policy-driven, with capital investment likely led by the private sector.

The report 'Alternative pathways to securing foreign exchange revenue for Lao PDR' developed three scenarios comprising high-level medium-term estimates for potential export revenue generation through 2027. These scenarios include a:

- Baseline first scenario broadly in line with recent government forecasts or targets;
- Lower growth scenario articulating potential contributing factors to the lower growth; and,
- Higher growth scenario that illustrates the directional revenue potential of improvements in the enabling environments of these sectors.

The higher growth scenarios highlight cumulative revenue upside above 20% vs the baseline over the forecast period, totalling approximately US$2,500m across both sectors.

A third sector, distributed electricity generation from renewable sources such as solar and biomass (rice husk), presents the opportunity to reduce or eliminate public spending on electricity imports, currently necessary mainly during the dry season due to limitations of the domestic grid. At sufficient scale, distributed generation could in some cases also serve as a potential substitute for planned hydropower investments, particularly in the south of the country. This would require improving the transmission network and modifying the regulatory and tariff environment to make this possible. Fully eliminating electricity imports would conserve US$80-100m annually; potential export revenue in the case of full hydropower substitution by distributed generation is currently too speculative to quantify.

CONCLUSION AND RECOMMENDATIONS

Absent significant debt relief, the fiscal situation for Lao PDR will be challenging through at least 2026 due to debt service obligations. Further capital-intensive investment in additional hydropower generation capacity risks prolonging this period of fiscal vulnerability, in addition to the environmental and social costs of such projects. The new Lao-China Railway and the ending of pandemic restrictions provide an opportunity for Lao PDR to ease this fiscal pressure via a recovery in agricultural exports and the return of international tourists.

With appropriate policy support, the government can help reduce barriers to development and drive private-sector led investment into accelerating the sustainable growth of these sectors. This has the potential to bring significant improvements to the livelihoods of a majority of the Lao people, given the large share of the population working in agriculture and tourism.

FIND OUT MORE IN THE REPORT "ALTERNATIVE PATHWAYS TO SECURING FOREIGN EXCHANGE REVENUE FOR LAO PDR"