HIGH-LEVEL SUMMARY TECHNICAL ASSISTANCE REPORT

PAPUA NEW GUINEA

Climate Policy Diagnostic

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The *High-Level Summary Technical Assistance Report* series provides high-level summaries of the assistance provided to IMF capacity development recipients, describing the high-level objectives, findings, and recommendations.

ABSTRACT: This technical assistance conducts a Climate Policy Diagnostic (CPD) for Papua New Guinea, covering climate adaptation and mitigation policy, as well as enabling institutions. Climate-related risks are macro-critical considerations for Papua New Guinea, while the country faces acute policy challenges in addressing climate-development nexus. This CPD identifies policy reforms that are good for climate and economic growth and promote fiscal sustainability. A systematic policy approach is needed to strengthen the climate resilience of water supply sector and disaster risk management. Carbon pricing can play a major role in the fiscal policy package to encourage climate actions in the energy and forestry sectors. Increasing the Treasury's engagement and strengthening cross-sectoral coordination would also help unlock climate investment.

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Background

This technical assistance conducts a climate policy diagnostic for Papua New Guinea (PNG), covering climate adaptation and mitigation policy, as well as enabling institutions to support climate investment. This activity assists the authorities in the identification of main priority areas for climate-related reforms and implementation challenges, with a particular emphasis on climate fiscal policy.

Main Messages and Recommendations

Climate-related risks are macro-critical considerations for Papua New Guinea (PNG). The sudden and devastating impact of the landslide in Enga Province in May 2024 that claimed over 2,000 lives and imposed damages reaching US$130 million is a tragic reminder of PNG's vulnerability to disasters. Hazards such as flooding, drought, and landslide are likely to intensify with climate change, while extreme heat increases human health risk and lower agricultural yields. If the current trends continue, climate change will have considerable negative repercussions on PNG's food and water security, coastal communities, ecosystems, and critical infrastructure, and is likely to cause significant adverse effects on the macroeconomy and people's livelihoods. The severe drought in 2015-2016 affected over 2.5 million people and cost PNG about 0.2 percent of its GDP. If no action is taken, the economic cost of sea level rise could reach 0.3 percent of GDP by 2050 in a moderate scenario, while the economy-wide impact could amount to 4 percent of GDP by 2050 and 15 percent by 2100 under a high emission scenario. In addition, as a large exporter of liquefied natural gas (LNG), PNG's major source of revenue is exposed to macro-transition risks.

PNG faces acute policy challenges in addressing the climate-development nexus. In 2022, 40 percent of the population still lived below the extreme poverty line, with about 86 percent living in the rural areas without access to electricity and safe drinking water. As a country with one of the lowest electrification rates in Asia and the Pacific, PNG's energy demand is expected to grow rapidly while urban development and agricultural expansion are putting pressures on natural resources such as land, forests, and water. The country is highly vulnerable to climate change and emits negligible 0.08 percent of global greenhouse gas (GHG) emissions. In this context, it is important that PNG ramps up policy efforts to mainstream climate adaptation and disaster risk management in vulnerable sectors/areas and put in place reforms that help mobilize resources and foster public and private sector adaptation investments. The country should implement policies to maintain forest cover and promote conservation, since forests provide adaptation and environmental benefits. At the same time, PNG should accelerate investment in renewable energy and energy efficiency in response to rising electricity demand.

The Climate Policy Diagnostic (CPD) identifies policy reforms that are good for climate and economic growth and promote fiscal sustainability. The CPD assesses PNG's climate policy and institutional landscape and prioritizes recommendations that (i) create fiscal space and support financial sustainability through revenue generation, broadening the revenue base and sources of climate finance, and/or helping to recover costs, in order to strengthen agencies' capacity to deliver on climate and sustainable development goals; (ii) internalize climate externalities associated with economic activities; (iii) provide incentive frameworks and institutional changes to enable private climate investments that align with the Nationally Determined Contribution (NDC) and the National Adaptation Plan (NAP); and (iv) help manage climate-related risks and adverse impact of climate policies on vulnerable/poor households.

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A systematic policy approach is needed to strengthen water supply sector and disaster risk management. In the water sector, the main challenges facing the government are to provide adequate and reliable water supply to both urban and rural areas, as well as to ensure that upstream water resources are utilized and managed in a sustainable manner. To this end, the water pricing framework needs to be updated—water abstraction charges and wastewater discharge fees should be revised to reflect the true economic value of water and environmental externalities associated with water use, while upcoming end-use water tariff review should be updated based on this new cost structure (with allowances for the poor and vulnerable households) and tariff approval made conditional upon utility's performance on non-revenue water and other climate performance indicators. For upstream water resources, the sector would greatly benefit from long-term integrated water resource management planning, as well as regular monitoring of the quantity and quality of surface and ground water. Mobilization of grant/concessional funding is critical for expansion of rural water supply. To effectively manage disaster risks, PNG needs to operationalize its early warning system and leverage the new census data to gain a better understanding of disaster risk hotspots and to support targeting of funding allocation for disaster response. Development of a comprehensive national disaster risk financing strategy would help PNG prepare an optimal mix of financing mechanisms for disasters of different levels of severity. Improving financial inclusion in tandem with making available shock-responsive financial products such as microcredits, savings and index-based insurance would go a long way in building resilience of farmers and poorer households.

Carbon pricing can play a major role in the fiscal policy package to encourage climate action in the energy and forestry sectors. Forest degradation driven by commercial logging is the biggest source of emissions in PNG. Forest resources are being depleted faster than restored, while forest conservation is not financially attractive. In response, the government could impose a carbon levy on commercial logging and on deforestation from commercial agriculture, with potential exemptions/deductions for those that meet sustainability standards. The levy could be used to support reforestation efforts and activities to slow down forest degradation. To incentivize forest conservation, the government could consider payment for environmental services. In the energy sector, the main policy challenges are in transitioning electricity generation away from fossil fuels and encouraging investment in renewable energy, while ensuring reliable supply. To address these issues, the government should move ahead with the implementation of carbon levy on liquid fuels, adjust fuel excises to inflation over time, establish regulatory frameworks for off-grid renewables, and adjust end-use electricity tariffs to reach cost-recovery with measures protecting low-income households. It is also important to improve revenue collection rate of the utility and gradually phase out capacity charges, to strengthen its financial position. The government could also introduce regulations and/or fees to internalize environmental costs of emissions from oil and gas production and those from the waste sector.

Increasing the Treasury's engagement and strengthening cross-sectoral coordination would help to operationalize climate policy and to unlock climate investment. PNG has robust legal, institutional, and policy frameworks to support the implementation of NDC and NAP. However, the climate policy agenda is treated as sectoral policy agenda alongside other sectors. Despite the efforts of the Climate Change & Development Authority (CCDA) to coordinate, there is evidence that climate and other sectoral policies have been developed independent of each other. Furthermore, inadequate partnership between the CCDA and the Treasury has been a roadblock to the implementation of important policies like carbon levy on fuels. A climate unit could be established at the Treasury to engage with stakeholders on climate

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fiscal policies and climate finance. Coordination bodies under the Climate Change Management Act (CCMA) should be operationalized to enhance coordination, as the new cycle of NDC update approaches. To aid a whole of government approach, PNG should clarify roles and responsibilities of sub-national governments and coordination mechanisms with other government stakeholders. Climate finance mobilization is also essential. To this end, PNG could leverage on the central banks' green finance policy, consider providing incentives to promote climate investments through the Investment Promotion Act, and further elaborate on regulations to promote climate initiatives under the CCMA, as a coordinated effort to catalyze private climate investments.

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