

CLIMATE CHANGE AND DISASTER RISK MANAGEMENT ASSESSMENT

A. Climate Change in the Pacific Region

1. Because of their small size, remoteness, fragile economic structures, and unique geography and environment, Pacific island countries—in particular the smallest, most resource-poor countries and outer island groups—are exceptionally vulnerable to natural hazards.¹ The World Risk Report 2014 rates Vanuatu as the country with the greatest risk of disaster worldwide based on exposure, susceptibility, and coping and adaptive capacities; Tonga is in third place and most of the Pacific region countries included in the report are in the top 15.² Disasters brought about by tropical cyclones, storm surges, and floods have the potential to erode many years of economic development gains by damaging critical infrastructure and diverting resources away from development spending toward disaster response and reconstruction efforts. Of the 20 countries with the highest average annual disaster losses scaled by gross domestic product, eight are Pacific island countries.³

2. Poor socioeconomic development planning in the Pacific region developing member countries (DMCs) of the Asian Development Bank (ADB) has further increased disaster exposure and losses, and climate change will affect the existing disaster risks by changing their frequency and intensity, bringing about more severe extreme weather events, such as cyclones, droughts, and flooding. Climate change and disasters also pose direct risks to ADB investments by adversely affecting project performance.

3. The climate and disaster risks that the Pacific region DMCs are exposed to are markedly disproportionate to these countries' minimal contribution to global greenhouse gas emissions. The World Resources Institute Climate Analysis Indicators Tool includes 10 of the 14 ADB Pacific region DMCs.⁴ In general, the greenhouse gas emissions throughout the Pacific region, both in absolute and per capita terms, are very low. The countries contribute about 0.2% of the global share (including emissions from land use and forests), the bulk of this resulting from logging in Papua New Guinea. Excluding Papua New Guinea, the remaining nine Pacific DMCs contribute about 0.01% of the global emissions.⁵

4. Climate change adaptation or mitigation interventions imply huge financing requirements, but Pacific region DMCs do not have the capacity to plan for or design ways to adapt to climate change, or to handle the complex financing arrangements of global climate change funds.

B. ADB's Approach to Climate Change and Disaster Risk Management in the Pacific Region

5. During the past few years ADB has significantly scaled up investments in renewable energy in the Pacific region and gained considerable experience in climate risk screening and climate proofing at the project level. It has incorporated climate risk screening and climate

¹ For more information on climate change, natural hazards, and disaster risk in the Pacific region, see linked document 1.

² United Nations University and the Alliance Development Works/Bündnis Entwicklung Hilft. 2014. *World Risk Report 2014*. Berlin.

³ World Bank. 2013. Acting on climate change and disaster risk for the Pacific. Washington, DC.

⁴ These are the Cook Islands, Fiji, Kiribati, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu.

⁵ World Resources Institute Climate Analysis Indicators Tool. <http://cait.wri.org/historical>

proofing as a standard practice in project preparation, and facilitated access to international climate financing primarily as cofinancing of investments. ADB is also providing technical assistance for mainstreaming, improving access to climate data, risk screening, and climate risk and vulnerability assessment tools. There has been growing emphasis on mainstreaming climate and disaster risk management (DRM) into project design, rather than processing stand-alone climate change or DRM investments. Integrated climate change and DRM is also becoming standard practice for ADB's Pacific Department projects, with climate-related risks and geological hazards considered in tandem.

6. To facilitate access to climate change funds for the incremental costs of climate change in the Pacific region, ADB has become an accredited implementing entity of various global funds, including the Climate Investment Funds and financial mechanisms of the United Nations Framework Convention on Climate Change, such as the Global Environment Facility, the Least Developed Countries Fund, the Special Climate Change Fund, the Adaptation Fund, and the Green Climate Fund. In addition to channeling resources from global funds, ADB has set up dedicated climate facilities funded by its own resources and bilateral partners, as well as disaster response funds.

C. The Way Forward

1. Mainstreaming Climate Change into ADB Sector Investments in the Pacific Region

7. ADB will continue to support mainstreaming of climate change considerations in its Pacific region operations to ensure that (i) climate and disaster risks and vulnerabilities are adequately reflected in the country partnership strategies and country operations business plans⁶ of Pacific DMCs, (ii) all pipeline projects are screened in relation to climate-related risks, and (iii) all infrastructure and other relevant projects are climate proofed as necessary. In terms of mitigation, Pacific Department assistance emphasizes energy conservation and efficiency (including supply- and demand-side measures), renewable energy deployment, reduction of greenhouse gas emissions from transport, solid-waste disposal, wastewater treatment systems, and land use measures. In the near term, renewable energy and energy efficiency improvements will remain the highest priorities for mitigation.

8. The range of adaptation options should consider both engineering and nonengineering options. Appropriate adaptation may not require any new technologies, and least-cost adaptation measures and nonengineering low-regret options should be preferred. For example, flood control measures for infrastructure projects may include improving catchment management, including reforestation, land use controls, protection of wetlands, and soil conservation. Coastal and marine protection options include creating and protecting natural marine buffer zones, especially in high-risk mangrove forests and coral reef areas. Urban sector adaptation might take the form of appropriate urban planning.

⁶ These will be reflected in the country strategic analysis. The country operations business plan is prepared annually for each of the PIC-11 and is supported by a country strategic analysis that considers individual country challenges and detailed sector assessments. This analysis has been institutionalized as a linked document to the country operations business plan following the release of a national development strategy.

2. Mainstreaming Climate Change Considerations into Development Planning

9. In most Pacific region DMCs, the highest priority areas for addressing climate-related risks are human settlement (water supply and drainage infrastructure), transport infrastructure (coastal roads and ports), energy generation capacity (hydro power and other renewable sources), and agriculture. Policy dialogue is imperative to expand climate change considerations beyond the environment and energy sectors and ensure that climate considerations are integral to development planning. ADB will build capacity to strengthen the knowledge, skills, and practices of sector agencies and communities in various fields related to climate change to facilitate the integration of climate change into the development plans and programs of Pacific region DMCs. It will also assist in establishing the legal, regulatory, and institutional framework to support policy implementation, especially in the sectors linked to ADB investments.

3. Access to Climate Finance

10. ADB is committed to coordinating with other development partners to maximize investment effectiveness in its climate change response. It will maintain and expand its involvement in development partner coordination and mobilization of cofinancing, and explore options for regional approaches for disaster risk financing in partnership with other development partners. Furthermore, ADB will explore innovative regional disaster risk pooling mechanisms that would complement the existing mechanisms in the region. The opportunities created by new climate financing mechanisms allows ADB to pursue a more programmatic and regional approach to climate and disaster risk management and financing in the Pacific region.