

# Pathways to Adaptation and Resilience in Pacific SIDS



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Climate change impacts along with the vulnerabilities stemming from the combination of physical characteristics, remoteness and poor infrastructure has a profound impact on development across all sectors in the Pacific small island developing States (SIDS). The intersection of natural hazards like the volcanic eruption in Tonga in January 2022 with the COVID-19 pandemic led to prolonged health and economic disruptions in the region. To tackle these complex and systemic risks, the 2050 Strategy for the Blue Pacific Continent, adopted in July 2022, outlines key thematic areas, calling for urgent, immediate, and appropriate action.

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## THE SHIFTING CONTOURS OF THE PACIFIC SIDS DISASTER RISKScape

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The disaster riskscape of the Pacific SIDS is being reshaped by cascading and converging hazards under a new disaster-climate-health nexus and increasing vulnerability of populations to cascading hazards. ESCAP's Risk and Resilience Portal shows that under the worst-case climate change scenarios, economic losses are projected to double to US\$ 322 billion in the future for the Pacific, and in turn will impact the achievement of the Sustainable Development Goals (SDGs), particularly Goal 13 (Climate action), Goal 14 (Life below water), and Goal 15 (Life on land), with knock on impacts on Goal 1 (No poverty), Goal 2 (Zero hunger), Goal 3 (Good health and well-being), Goal 9 (Industry, innovation and infrastructure), and Goal 11 (Sustainable cities and communities).

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## MANAGING DISASTER DURING A GLOBAL PANDEMIC

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**Cascading hazards have disrupted lives and livelihoods** and a robust whole-of-system

analysis can support policymakers in targeting action to ensure protection and practices for people on climate and disaster risk reduction, and mobility including relocation, migration, and displacement. The deluge of weather events, including cyclones and floods, occurring simultaneously with the COVID-19 pandemic have compounded impacts on livelihoods, economies, and populations in the Pacific SIDS. Pacific SIDS are likely to face a more complex set of hazards arising from the nexus of climate change and related biological hazards.

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## HOTSPOTS OF EXPOSURE AND VULNERABILITY TO CASCADING RISKS UNDER 1.2°C AND 2°C GLOBAL WARMING

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On top of regional collaboration and commitments to address the needs of the Pacific SIDS on climate change, disaster risk reduction and their cascading impacts, it is important to **utilize the latest climate science** to strengthen investment in participatory science and innovative research. Under the most recent Shared Socioeconomic Pathway (SSPs) climate models, the Pacific SIDS will face an increase in

annual wind speed of tropical cyclones and associated health hazards. Identifying vulnerable groups who are susceptible to the threats of increasing cyclones and the related biological hazards, under 1.5°C and 2°C climate change.

## SOLUTIONS TO ADDRESS THE KEY ISSUES

Investment in five key adaptation priorities - strengthening early warning systems, making new infrastructure and water resource management more resilient, improving dryland crop production and using nature-based solutions like increasing protection of mangroves costs around 1.5 percent of GDP in Pacific SIDS - which is nearly 3 times less than the average losses projected. These adaptation investments must be risk informed and strategically directed towards policy actions that yield high cost-benefits. Multi-hazard risk hotspots are identified to target risk informed policy actions which could lead to transformative adaptation through inter-sectoral synergies and co-benefits. Transformative adaptation also minimizes and prevents systemic and cascading risk.

## RECOVERING FROM PANDEMIC, MOVING TOWARDS A BLUER AND RESILIENT PACIFIC

The economic recovery from the COVID-19 pandemic must include investing in climate adaptation to building resilience economies and populations to future crises and to meet the targets of Sustainable Goals. ESCAP's Risk and Resilience Portal shows that the top adaptation solutions for the Pacific SIDS to support the SDGs, in order of priority, are:

- Protecting mangroves
- Improving dryland agriculture
- Strengthening early warning systems
- Making water management systems more resilient
- Making new infrastructure resilient



## TRANSFORMATIVE ACTIONS TO BUILD RESILIENCE

Frontier digital technologies and innovative ecosystems will drive solutions for resilience. Digital solutions make possible advancements in risk analytics, social protection, early warning systems for biological hazards and impact-based forecasting. Technological advances in geospatial and risk analytics for risk reduction and resilience building required sub-regional and regional cooperation. Risks in Pacific SIDS are predominantly transboundary. Adaptation measures must integrate transboundary risk profiles in National Adaptation Plans, Nationally Determined Contribution, Voluntary National Reviews and Disaster Risk Reduction Strategies. Pacific Resilience Platform and existing subregional cooperation architecture are the key enablers.



Pathways to Adaptation and Resilience in Pacific SIDS Subregional Report



ESCAP's Risk and Resilience Portal

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