

Stories of Impact

A series highlighting achievements in disaster risk management

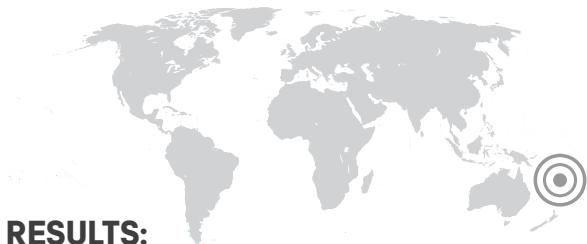
Building Back Better in Tonga after Cyclone Ian



REGION: EAST ASIA AND PACIFIC

FOCUS: RESILIENT RECOVERY

COUNTRY: TONGA



RESULTS:

- With the World Bank's support, a first-ever Housing Recovery and Reconstruction policy was developed that clearly outlined the Tongan government's strategy for housing reconstruction and recovery.
- A damage assessment helped to leverage \$12 million in World Bank financing and low-interest credits, as well as a \$2 million grant from the ACP-EU NDRR Program.
- A cyclone-proof housing design was completed and reconstruction contracts awarded within six months of the disaster. So far, nearly 30 houses have been constructed and turned over to beneficiaries.
- The housing assessment and field surveys have helped to forge a coalition among the government, local communities, civil society organizations including the Tongan Red Cross, and other stakeholders.

Tonga is one of the world's most vulnerable countries to the effects of natural disasters and climate change. In 2014, Tropical Cyclone Ian swept through the Pacific Island nation and caused significant damage to housing and critical infrastructure.

Following the cyclone, the Tongan government, the Global Facility for Disaster Reduction and Recovery (GFDRR) and the World Bank rapidly assessed the damages and implemented a recovery program. With funding from the African Caribbean Pacific-European Union Natural Disaster Risk Reduction Program (ACP-EU NDRR), this assessment and plan worked to strengthen the housing and transport infrastructure sectors against future natural hazards.



GFDRR
Global Facility for Disaster Reduction and Recovery



WORLD BANK GROUP

ACP-EU Natural Disaster Risk Reduction Program

An initiative of the African, Caribbean and Pacific Group, funded by the European Union and managed by GFDRR

CONTEXT:

The 176 island archipelago of Tonga is exposed to a range of natural hazards, with estimated annual average disaster losses from cyclones, earthquakes, and tsunami equivalent to 4.4% of GDP. Recorded as the most powerful storm to ever hit the Pacific Island nation, Tropical Cyclone Ian affected some 5,500 people, or almost 70% of the inhabitants of Tonga's Ha'apai island group, and caused damages and losses of \$50 million, or 11% of the country's GDP. The housing sector was particularly affected, with nearly a thousand houses and public buildings destroyed or severely damaged, or about 75% of Ha'apai's housing stock.

APPROACH:

GFDRR, the World Bank, and the government supported resilient recovery on Tonga by conducting a rapid disaster assessment, followed by a detailed damage and socioeconomic assessment of affected households. Using remote sensing, geo-information, and field surveys with GPS, these damage assessments formed the basis for Ha'apai housing recovery and reconstruction policy. The assessments also contributed to World Bank and ACP-EU reconstruction and recovery investments and technical assistance, which:

- Provide best practices on housing recovery and reconstruction, including 'building back better' principles and climate resilience, public grievance systems, and capacity-building on safe home construction.
- Support housing reconstruction, repairs, and retrofitting for some 1,000 households through the Tonga Cyclone Ian Reconstruction and Climate Resilient Project.
- Rehabilitate priority infrastructure, including roads, airports, and ports in Ha'apai.
- Provided the Ministry of Infrastructure and other stakeholders with capacity building training supported by GFDRR and the World Bank to help ensure that reconstruction efforts follow proven building standards and best practices.

NEXT STEPS:

As part of ongoing recovery efforts, housing assistance and infrastructure reconstruction are being implemented. In the long-term, the goal is to increase the resilience of the country's vulnerable population and sectors through continued engagement with the Tongan government, in line with its National Infrastructure Investment Plan and Joint National Action Plan on Disaster Risk Management and Climate Change. This will also be done through Tonga's participation in a planned regional Pacific Resilience Program, which will strengthen disaster resilience, early warning and preparedness, and improve the post-disaster response capacity of participating Pacific Island countries.

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*ALL MONETARY VALUES IN USD



"The government is working with our partners, including the World Bank, to help affected communities to recover from the destruction caused by this natural disaster. We welcome the World Bank's willingness to both make these emergency funds available to our government and to reallocate existing resources to allow us to meet our most pressing infrastructure needs."

– Aisake Valu Eke, Minister of Finance and National Planning, Tonga

LESSONS LEARNED:

Investing in prevention saves lives and mitigates the scale of disaster impact. Field assessments revealed that in many places, houses constructed to cyclone standards in the early 1980s were untouched by the disaster. However, these homes were surrounded by many newer houses that were not built to code and were completely destroyed or severely damaged by Cyclone Ian.

Innovative tools can support recovery planning and reconstruction. GFDRR-led assessors used new technology for the housing assessment, including a hand-held device with integrated GPS. This allowed for faster and more efficient collection of data, which can be used for further reconstruction efforts and future development.

Integration of 'building back better' principles into recovery is important for long-term resilience. As part of cyclone recovery efforts, interventions such as retrofitting homes and water supply systems, updating building codes, setting up compliance systems, raising public awareness, hazard mapping, and improving national disaster recovery and reconstruction frameworks were used to help strengthen long-term resilience to future disasters.