

Stories of Impact

A series highlighting achievements in disaster risk management

Building Climate and Disaster Resilience in Timor-Leste



REGION: EAST ASIA AND PACIFIC
FOCUS: RISK IDENTIFICATION
COUNTRY: TIMOR-LESTE



RESULTS:

- An assessment of natural hazards and associated risks in four districts along a planned 100 kilometer stretch of the Dili-Ainaro road corridor was completed, estimating exposure above \$570 million, with residential and transport accounting for more than 80 percent of the total value.
- A capacity building program strengthened the skills of Government staff and relevant officials necessary for multi-hazard risk assessment, including data collection, field surveys, and more.
- A \$2.7 million grant agreement between the Government of Timor-Leste and the World Bank was signed in February 2015 to finance a follow-up project.

PROJECT DESCRIPTION:

Timor-Leste, a small, mountainous country in Southeast Asia occupying the eastern half the island of Timor, is highly vulnerable to natural hazards. Weather-related risks, such as monsoon rains, droughts, flash floods, landslides, and destructive winds are frequent threats. These risks are exacerbated by the potential for seismic risks, volcanoes, and tsunamis.

Timor Leste's government, recognizing the need for disaster preparedness, established the National Disaster Management Directorate (NDMD) to manage these risks. In 2014-15, in collaboration with the World Bank, UNDP, and specific branches of the government, NDMD implemented the Climate and Disaster Resilience in Communities along the Dili-Ainaro and Linked Road Corridors Project, with support from the Africa Caribbean Pacific-European Union Natural Disaster Risk Reduction Program (ACP-EU NDRR), an initiative of the ACP Group of States, funded by the EU and managed by the Global Facility for Disaster Reduction and Recovery (GFDRR).

The program aimed at generating and using quantified data to better understand and prepare for natural hazard risks along the corridors, and to support capacity building in Community Based Disaster Risk Management (CBDRM).



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:

Natural hazards will be a constant threat to communities, infrastructure, and livelihoods in Timor-Leste because of its geographical location. Planning for inevitable extreme weather and other natural hazards, therefore, requires a robust CBDRM program. The government of Timor-Leste recognized that better data and analytic tools were needed to address vulnerabilities to natural disaster risk. It lacked geospatial data, historical data, details about existing infrastructure and buildings, and information about communities and the agriculture sector, upon which many livelihoods depend.

APPROACH:

The program consisted of several complementary elements: data collection, analysis, development of tools and training local officials to enable them to continue this work.

The assessment was undertaken in 49 municipalities (sucos) along the Dili-Ainaro road. Using risk modelling, the project determined the vulnerability of each suco and identified those most at risk in case of 100-year return period flood and wind events. Analyses covered weather-related threats, such as floods, strong winds, and landslides. They also included analysis of the vulnerability of communities, for example, exposure analysis, social vulnerability assessments, hazard risk modeling and quantifying potential damage and recovery costs. The assessment will help inform a community-based risk management system to be piloted under the next phase of the project in the 26 most vulnerable municipalities.

Tools developed to enable local officials to conduct their own assessments include a project operation manual, a capacity building strategy, a community-based disaster risk management guide, technical guidelines, and training materials. These were complemented by capacity building and knowledge transfer.

NEXT STEPS:

Data from the analyses was collected in a database for the four districts along a planned 100 kilometer stretch of the Dili-Ainaro road corridor and used to develop and improve hazard models for flood, strong winds, and landslides. The ACP-EU NDRR Program leveraged \$2.7 million in funding from the World Bank (from the Japan Policies and Human Resources Development Fund) to build on the results of the assessments and continue the advancement of disaster risk management work in Timor-Leste.

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*ALL MONETARY VALUES IN USD



“These projects were raised to strengthen and empower communities to better address any disaster, and to minimize the impact of these disasters.”

— Isabel Guterres, Minister of Social and Solidarity (MSS)

LESSONS LEARNED:

Detailed data from multiple sources is critical for assessing natural hazard risks and building a disaster community-based disaster risk management strategy. Necessary information includes more than historic weather patterns and topographical data. It also includes details on the population, transport infrastructure, health and education facilities, buildings, and sources of livelihoods.

Technology and capacity building are necessary to collect, manage, and make effective use of data. NDMD staff and other stakeholders benefit from technical training, for example, in geospatial software or database management. This is supported by training in data collection and conducting field surveys.