

# PROJECT BRIEF

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## EU-GIZ ACSE ADAPTING TO CLIMATE CHANGE AND SUSTAINABLE ENERGY



PACIFIC ISLANDS  
FORUM SECRETARIAT



Implemented by  
**giz** Deutsche Gesellschaft  
für Internationale  
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## Kingdom of Tonga: Coastal Protection Trials in Western Tongatapu

### Background

The Kingdom of Tonga is a large tropical archipelago of 169 islands spread over 700,000 square kilometres of the western South Pacific Ocean. Tonga lies just west of the International Date Line, directly south of Samoa and north of New Zealand. Tongatapu is the main island and population centre.

Most of the population live in low-lying areas. In Western Tongatapu, parts of the communities lay less than two metres above sea level rendering properties vulnerable to flooding and coastal erosion caused by sea level rise, storm surge, heavy rain and catastrophic events such as tsunamis and cyclones. Households in this district tend to be of low economic means and tend to have limited ability to adapt or relocate.

### Project Objective

This project will **trial the effectiveness of selected coastal protection measures** in Western Tongatapu, Tonga. The project is aligned with Tonga's Joint National Action Plan for Climate Change Adaptation and Disaster Risk Management (2010-2015) and the Drought Response Plan. It also contributes to achieving the vision set out in Tonga's Strategic Development Framework (2011-2015).

### Current situation

Poor town planning has resulted in marginal lands being subdivided for housing. Roads have also been built in these areas and mangroves cleared for firewood and cropping (now failed), unnecessarily exposing villagers further to storm surge impacts.

The construction of a road through Western Tongatapu, with-

### Project Summary

**Location:** Western Tongatapu, Tonga

**Objective:** Trial the effectiveness of selected coastal protection measures

**Implementing Agency:** Ministry of Environment, Energy, Climate Change, Disaster Management, Information and Communications (MEIDECC)

**Budget:** € 530,000

**Duration:** 2016—2018

out including culverts or land reformation to allow for runoff after rain, exacerbates flooding in some properties, particularly those built in swales (low areas between hills). An inadequate seawall previously constructed adjacent to the community of A'hau offers only limited protection to low-lying properties against the threat of saltwater inundation.

Detailed household surveys carried out for this project reveal that impacts are highly varied depending on location. Major losses of mangrove forests in front of some villages, such as Kolovai and A'hau, have increased the exposure of households to flooding caused by storm surge.

The Government is now looking to rectify the situation. It is using the EU-GIZ ACSE project to implement practical measures to protect households from flooding and foster understanding and stewardship for the Hihifo coastline within the local community.



## What Is EU-GIZ ACSE Doing?

The EU-GIZ ACSE programme helps people in 15 Pacific Island countries address two common challenges: adapting to climate change and reducing their dependence on fossil fuels.

GIZ is supporting the Government of Tonga and its dedicated project team to implement coastal protection trials in selected areas of Western Tongatapu. The team is working in close partnership with the people of the Hihifo District.

Key results from this work include:

1. Refurbishment and/or construction of coastal protection measures such as barriers, drainage systems and mangrove forests at high priority locations;
2. Establishment of the basis for a national shoreline monitoring system for Tonga focusing on awareness raising and training of government technicians and key community members;
3. Completion of education and awareness actions to improve community knowledge of, and empowerment towards addressing coastal hazards, working closely with the six participating villages, local schools and youth groups; and,
4. Strengthened partnerships between government and communities to address coastal hazards in ways that are effective including the formation of a Hihifo District coastal committee and delivery of joint actions such as the planting, monitoring and protecting mangroves at important locations.

## Organisational Context

The Climate Change Division within the Ministry of Environment, Energy, Climate Change, Disaster Management, Information and Communications (MEIDECC) is leading the implementation of the project in partnership with the newly formed Hihifo Coastal Committee and the good people of the six-targeted villages.

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