

Scaling Up Pacific Adaptation (GCCA+ SUPA)

Scaling up coastal protection in northern Tongatapu in response to climate change



Kanokupolu coastal revetment post - January 2022 tsunami.

Project focus: Coastal Protection



Project timeframe



1 January 2019 - 30 June 2023

National implementing agencies



Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communication, Ministry of Infrastructure, Ministry of Internal Affairs and Ministry of Finance

Beneficiaries



Direct benefit: **12,268 persons**

Indirect benefit: **62,343 persons**

Tonga is vulnerable to the adverse effects of climate change and natural disasters.

Project synopsis

The 'Scaling up coastal protection in northern Tongatapu in response to climate change' project will focus on implementing small-scale coastal protection measures within the overall context of a coastal protection plan for the entire north coast. The project will include ecosystem-based measures to complement existing hard coastal protection infrastructure in the most vulnerable coastal communities.

How does this project address climate change adaptation in Tonga?

Tonga consists of four main island groups of which Tongatapu is the biggest. Tongatapu is flat and low-lying and the highest elevation is 70 meters above sea level. Most of the urban area of Nuku'alofa, the capital city, is only 1–2 meters above sea level and is subject to periodic flooding during heavy rain. Accelerated sea level rise, a result of climate change, is contributing to beach erosion. This is, in turn, resulting in the wave overtopping being experienced on coastal roads and by coastal communities in Tongatapu.

Focusing on selected vulnerable communities in Tongatapu, the project adopted a participatory and inclusive approach that addresses the vulnerabilities and the rights of these residents. Skills in climate resilience are also being enhanced, particularly for town officers, youths and community representatives.

Recognising the continuing and increasing challenges posed by climate change, the project is scaling up small-scale coastal protection and ecosystem-based measures for selected communities in northern Tongatapu. These will complement existing medium-scale coastal protection works - revetments, groynes and offshore breakwaters – that have been constructed along the north and north east coasts of Tongatapu. To assist with the Government of Tonga's strategic planning for the north coast, the project prepared a feasibility and conceptual design study to guide the protection of coastal communities up to the 2030 and 2050 planning horizons. The project started to implement selected recommendations when the tsunami hit Tonga in January 2022. The project revised options and costings for coastal protection in Tongatapu.

CLIMATE CHANGE ADAPTATION IN TONGA



The five coastal units along northern Tongatapu covered in the coastal protection plan.



A youth participating in the coastal tree planting during the youth mangrove training.

The project is scaling up coastal protection and ecosystem-based measures in selected communities in northern Tongatapu.

Key Highlights

Enhancing community-based coastal protection



- Communities working with Government agencies to prioritise small-scale coastal engineering and ecosystem-based measures.
- Protecting coastal communities by repairing the 1.3 km long Kanokupolu revetment following the January 2022 tsunami.
- Provision of training for youth groups on the importance of mangroves as an ecosystem approach to coastal area management.
- Establishment of the Hihifo mangrove nursery at Nukunuku with arrangements in place with the Nukunuku youth group to continually restock and care for the nursery.
- Replanting of mangroves in areas where they have been depleted along the northwest coast of Tongatapu.

Building community resilience



- Building the capacity of town officers and community representatives in climate resilience through specific training.
- Facilitating the sharing of traditional knowledge, especially relating to coastal issues, between elders and youths.

- Involving youth and communities in awareness activities such as coastal clean-ups, coastal tree planting and preparation of climate change videos on the impacts of climate change and natural disasters.
- Expanding the outreach of Tonga's Climate Change Awareness Week in 2020, 2021 and 2022.

Strategic planning



- Assessing the impacts of past coastal protection measures in 'Ahou (western Tongatapu) and along the coastline of Makaunga and Talafo'ou (eastern Tongatapu) using a newly designed methodology and sharing the results with communities, national agencies and partner countries.
- Conducting a coastal assessment and preparing a costed conceptual plan for coastal protection along the entire length of the north coast of Tongatapu to inform Government's 2030 and 2050 planning horizon.
- Revising the conceptual plan after the January 2022 tsunami.
- Scaling up existing IT infrastructure to archive and share national climate change knowledge and information.

Activities meet the following SDGs:



About the SUPA project

The Global Climate Change Alliance Plus Scaling up Pacific Adaptation (GCCA+ SUPA) project is about scaling up climate change adaptation measures in specific sectors supported by knowledge management and capacity building. The 4.5 -year project (2019-2023) is funded with € 14.89 million from the European Union (EU) and implemented by the Pacific Community (SPC) in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP) and The University of the South Pacific (USP), in collaboration with the governments and peoples of Cook Islands, Federated States of Micronesia (FSM), Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Tonga and Tuvalu.

The **Overall Objective** of the GCCA+ SUPA project is to enhance climate change adaptation and resilience within ten Pacific island countries.

The **Specific Objective** is to strengthen the implementation of sector-based, but integrated, climate change and disaster risk management strategies and plans.