



**SPC**  
Secretariat  
of the Pacific  
Community

## Environmental monitoring to enhance community livelihoods and build resilience to climate change in the low-lying atolls of Cook Islands



*A water quality monitoring buoy in the Manihiki lagoon will provide information to pearl farmers and fishers – climate change adaptation in Cook Islands*

### Project amount

€ 0.5 million (approx. NZD 0.8 million) funded by the European Union

### Project period

11 April 2013 to 30 June 2015

### Implementing agencies

Climate Change Cook Islands; Ministry of Marine Resources  
Secretariat of the Pacific Community (SPC)

### Partners

United Nations Development Programme (Strengthening Resilience of our Islands and Communities to the Impacts of Climate Change project)

### Project synopsis

The 'Environmental monitoring to enhance community livelihoods and build resilience to climate change in the low-lying atolls of Cook Islands' project is strengthening environmental monitoring capabilities in the northern Pa Enua (outer island) group of islands, focusing on Manihiki Island. The project

activities will contribute to improved management of marine resources, intended to increase the resilience of pearl farmers and artisanal and small-scale commercial fishery operators to the adverse effects of climate change.

### How does this project assist climate change adaptation in Cook Islands?

Livelihoods in the northern Pa Enua are closely tied to the natural environment. Pearl farming is the most significant source of economic revenue and it is dependent on a suitable lagoon environment. Fisheries resources are also an important source of food security and income. The effects of climate change on temperatures, precipitation (rainfall), extreme weather, lagoon salinity, reef sedimentation and ocean acidification, among other things, will exacerbate the difficulties experienced in the pearl farming and fishing industries. Improved environmental monitoring will provide more and better quality information to pearl farmers and fishers that will improve their management practices and enhance their capacity to adapt to a changing climate. For example, improved monitoring will lessen the risks associated with disease outbreaks and environmental stress to oysters.

### Key highlights of the project

- Install an advanced water quality monitoring buoy in the Manihiki lagoon. Information from the buoy, together with other lagoon monitoring systems, will provide real-time information to pearl farmers, including alerts for extreme conditions, allowing timely action to be taken.
- Refurbish the Ministry of Marine Resources laboratory and provide funding for two additional technical staff positions in the Ministry, one based in Manihiki and one in Rarotonga.
- Provide additional technical information and expertise that will assist marine resource industry professionals in the northern atolls to make their operations more resilient to the impacts of climate change.
- Provide assessments for the feasibility of pearl farming and other marine resource industries in northern atolls where these industries are not presently operating.
- The project's focus was determined by the Government of Cook Islands and included widespread consultation. Cook Islands is responsible for the project's implementation.



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## The Global Climate Change Alliance: Pacific Small Island States project in Cook Islands



Senior citizens in the Cook Islands are sharing their experiences to contribute to the body of climate change research.

The Global Climate Change Alliance: Pacific Small Island States (GCCA: PSIS) project is a four year € 11.4 million initiative funded by the European Union. It is implemented regionally by the Secretariat of the Pacific Community and involves national climate change adaptation projects in nine Pacific Island countries – Cook Islands, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Palau, Tonga and Tuvalu.

The overall objective of the GCCA: PSIS project is to support the governments of the nine Pacific small island states in their efforts to tackle the adverse effects of climate change.

The Government of Cook Islands is implementing a national climate change adaptation project (see reverse side for more information) with € 0.5 million provided by the European Union.

In addition to this project funding, Cook Islands can access specialised technical assistance and training provided through a pooled resource allocation in the regional GCCA: PSIS umbrella project. This mechanism is providing the following in Cook Islands.

### Training

Cook Islands has been providing internet training for senior citizens using tablet computers. Much of the Pa Enua, or outer islands, in Cook Islands are experiencing bimodal demographic distribution

where young and middle-aged adults migrate in search of employment opportunities, leaving children in the care of senior adults. The training is designed to demystify both climate change and the internet and impart the skills necessary to share information online. The aim is to increase community resilience to climate variability and change by enabling senior citizens to access relevant and timely information. Tablet computers will remain available for use at local Telecom offices throughout the islands.

Training in project proposal, design, budgeting, monitoring and evaluation is underway in the Cook Islands. The training is already showing successes with a quarter of the participants developing and submitting funding proposals within six months of the first training.

### National climate change mainstreaming

Mainstreaming refers to the process of embedding climate change planning in the spectrum of government ministries, sectoral plans and activities. Relevant GCCA: PSIS activities include:

- a review of the extent of climate change mainstreaming in national strategic plans, policies and budgets in Cook Islands. This was conducted to inform an assessment of the country's readiness to receive international climate finance through budget support mechanisms.

- providing technical assistance to assist Cook Islands to become accredited to the Adaptation Fund, established under the Kyoto Protocol. This process will further develop financial management capacity in Cook Islands and, if successful, will provide access to adaptation project finance using this mechanism.

### Documentary

- A short documentary, *Adapting to Climate Change in Cook Islands: the Human Health Dimension*, has been prepared and distributed as part of a regional series in 2013. The video highlights efforts in Cook Islands to reduce the prevalence of mosquito-borne diseases.
- A second documentary, *Climate change indicators through the eyes of Indigenous people*, captures the indigenous knowledge of seniors in the Pa Enua about the changes they have observed over their lifetime. Combined with a questionnaire survey targeting at least 10% of the population in the Pa Enua, this will contribute to the identification of climate change indicators and the body of Cook Islands climate change research.