



In 2011, emergency supplies of fresh water had to be flown in to address a severe drought in Tuvalu.

Helping islands countries cope with climate change

The adverse effects of climate variability and climate change are putting additional pressure on already vulnerable Pacific Island states and affecting the very basics of survival – fresh water supply and food production.

But there's hope in sight. A number of EU-funded projects implemented by SPC are helping the Pacific members of the African, Caribbean and Pacific Group of States (PACPs) adapt and become more resilient through targeted interventions. The PACPs are Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Marshall Islands, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu and Vanuatu.

Food security

The €3 million European Development Fund (EDF) *10. Adapting clonally propagated crops to climatic and commercial changes* project is implemented by SPC's Land Resources Division through its Centre for Pacific Crops and Trees (CePaCT).

Working with research partners around the world, the project is modifying the genetic basis of two Pacific Islands staple foods: taro and xan-

thosoma – and the lessons learnt will be used to adapt other tropical crops to climate change.

Xanthosoma is known by different names in the region: Fijians call it *dalo ni tana* while Samoans refer to it as *talo palagi*.

So far, the project has distributed over 6500 plantlets comprising 100 varieties of taro to countries in Africa, Asia, the Caribbean, Europe and the Pacific for field trials for extreme climatic conditions.

In the Pacific, it has distributed 50 varieties to PNG and Vanuatu for this purpose and the new varieties and relevant technology developed will be shared by all participating countries.

In time, new drought and disease resistant varieties will be distributed to farmers and communities in the Pacific and around the world for greater food security.

A secondary aim of the five-year project, which started in 2011, is the breeding of new varieties of taro that are easy to grow and have high commercial potential.

Water resources

Water is an integral component of climate

change and the primary medium through which it exhibits its impacts. Climate change directly affects the water cycle and, through it, the quantity and quality of water resources available to meet human and environmental demands.

Pacific Islands countries have fragile water resources due to their small size, lack of natural storage, competing land use and vulnerability to natural hazards.

In many Pacific countries, even small variations in water supply can have a significant impact on health, quality of life and economic development.

The EU-funded €2.8 million *Integrated Water Resources Management (IWRM) Planning Programme* is helping member countries develop governance structures to improve water management and ensure the needs of all users is taken into account.

Implemented by SPC's Applied Geoscience and Technology Division, the five-year project has helped develop, promote and implement appropriate policy, planning, regulatory frameworks and community awareness in 14 PACPs.

For example, in Micronesia, national water summits held in FSM, Palau and RMI have resulted in presidential endorsements of IWRM, including the development of national water policies in each country.

Through the *Pacific Hydrological Cycle Observing System* project, the EU has helped improve the ability of countries to monitor and measure their water resources by installing water monitoring equipment like rain and river gauges as well as flood warning systems, and by training hydro-