



# Coping with Climate Change in the Pacific Island Region (CCCPIR)

## Enhanced Food Security and Alternative Income Opportunities through Solar Fruit Drying Pele Island, Vanuatu

### Project facts CCCPIR

Funding sources: Federal Republic of Germany through the Federal Ministry for Economic Cooperation and Development (BMZ)

Regional partners: SPC, SPREP and USP

Countries: Federated States of Micronesia, Fiji Islands, Marshall Islands, Nauru, Kiribati, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu

Duration: January 2009-December 2015



## Climate Change in the Pacific

Pacific Island Countries (PICs) are already experiencing the negative impacts of climate change, especially as these countries are of the most vulnerable to environmental hazards and often have insufficient adaptation resources. Sea-level rise, changes in precipitation patterns and rising temperatures are causing secondary impacts of coastal erosion, salt water intrusion, cyclone damage, pest and disease outbreaks, water insecurity and declining agricultural production.

The 'Coping with Climate Change in the Pacific Island Region (CCCPIR)' programme aims to strengthen the capacities of Pacific member countries and regional organisations to cope with the impacts of climate change. The programme is funded by the Government of the Federal Republic of Germany through the Federal Ministry for Economic Cooperation and Development (BMZ) and implemented through GIZ working in partnership with SPC and SPREP. At the regional level, the project aligns with the Pacific Island Framework for Action on Climate Change 2006-2015 (PIFACC) and at the national level with the Priority Action Agenda (PAA).



## Wasted Harvests in Vanuatu

Vanuatu is known for its bountiful harvests of fruits and nuts (like mango, coconut, papaya and tamarind), but climate change is threatening these very important sources of food and income. Climate change and variability are already affecting the timing and success of flowering and fruiting of many of these crops. For example, the 2011 mango crop was affected by the heavy rains caused by two consecutive La Nina events. Climate extremes can also cause trees to fruit early, late or not at all. The high vulnerability of our fruits and nuts to climate change have made them the focus of the SPC-GIZ Climate Change Program.

In Vanuatu, very little value adding of products is undertaken. For example, when tomatoes are in season, the markets are flooded, prices drop and much produce is wasted. Only a few months later, no tomatoes can be found. Developing ways to store and preserve these excess fruits and nuts for use during cyclone periods when little food is available is a critical climate adaptation strategy. Some islands of Vanuatu have very well developed traditional food storage techniques, like the preservation of breadfruit in the Torres Islands, while others do not.



## Climate change and its impact on Vanuatu Communities

The Island of Pele, one of the SPC-GIZ CCCPIR pilot sites, is experiencing many climate change impacts such as: coastal erosion, slope erosion, leaching of soil nutrients and increasing temperatures.

SPC-GIZ is working with the people of Pele to identify how climate change impacts on their lives, and to find innovative solutions and locally appropriate adaptation strategies. CCCPIR is also working to strengthen the capacity of the Nguna-Pele Marine and Land Protected Area Network to deliver climate change education and awareness to island communities, and encourage families to proactively adapt to climate change.



The SPC-GIZ program, in collaboration with Charles Long Wah of the Vanuatu Kava Store, have developed a Vanuatu-appropriate and efficient solar drying system, and organized training workshops on the basic elements of fruit drying, food security and value adding.

With the help of the project's detailed step-by-step instruction and drying manual, village women have learned the intricacies of producing quality dried products for food security and even extra income generation.



## Hands-on, sustainable projects

The solar fruit dryer uses the sun's energy to naturally dry and preserve fruits, nuts, fish or meat. A 1Watt solar panel is sufficient to power two fans which blow solar heated air around the inside of the dryer. The dryer doesn't require a battery and while it works best when the sun is shining it also works when it is cloudy.

Drying mangos can take as little as 2 days, and the product can last for up to a year. The program encourages villagers to expand the planting of fruit and nut trees as a way to financially benefit from sustainable land use and also adapt to climate change.



## A success story for Ni-Vanuatu people

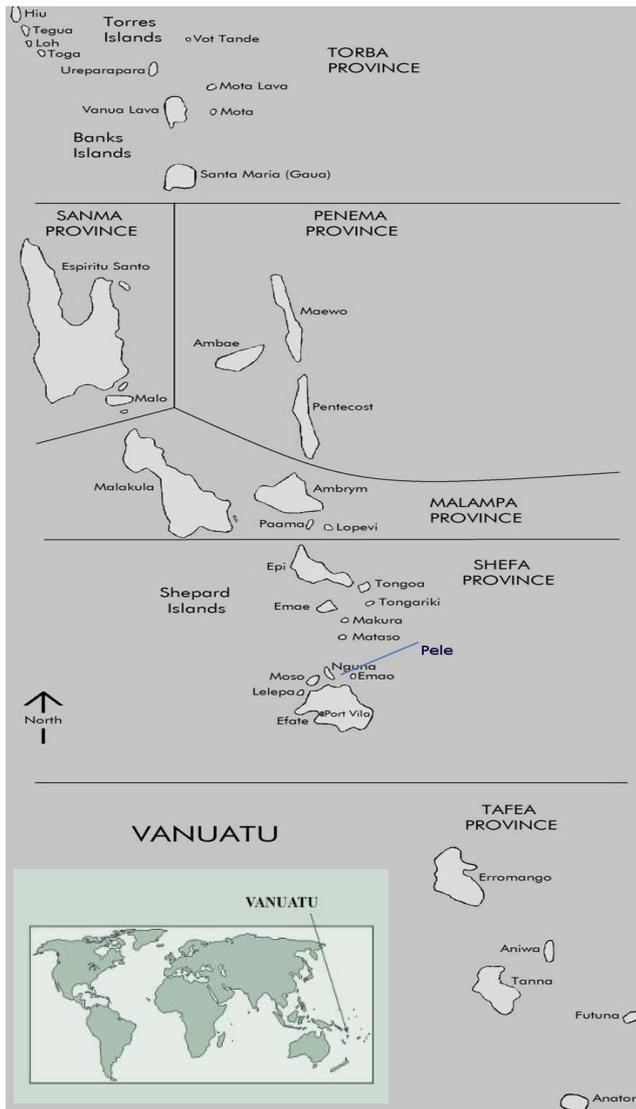
The island communities on Pele welcome this sustainable approach to manage their future while using their land in ways that help them adapt to climate change and also benefit financially.

**Katy, Melanie and Janet**

*"Food preservation enables me to prepare food for my family for times when the harvest is destroyed by wind and rain."*

*"People in Port Vila love to buy my dried fruit and jam. I can now make money to support my family."*





GIZ is a federally-owned enterprise that supports the German government in the field of international development cooperation. For more than 30 years, GIZ has been cooperating with Pacific Island partners in strengthening the capacity of people and institutions to improve the lives of communities for this generation and generations to come. GIZ is an implementing agency providing support through technical cooperation to balance economic, social and ecological interests through multi-stakeholder dialogue, participation and collaboration.

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