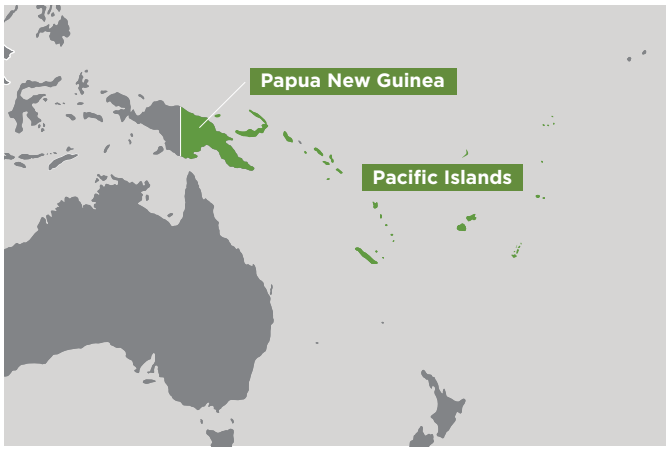
Australian Government
Australian Centre for International Agricultural Research

Horticulture

Safeguarding and deploying coconut diversity for improving livelihoods in the Pacific Islands



Overview

Coconuts contribute directly and indirectly to the livelihoods of approximately 5 million vulnerable people in the Pacific Islands' coastal communities.

The copra industry (crude coconut oil) was a source of wealth for the Pacific Islands, but its value has fallen and ageing trees have become less productive, making dependence on coconuts a poverty trap.

Nevertheless, coconuts continue to provide a foundation of income, food and construction products, and coastal protection in the face of extreme weather and rising sea levels. And, coconut-based livelihoods based on diverse small- and medium-sized enterprises can offer a pathway out of poverty and towards more resilient livelihoods. These enterprises also provide increased opportunities for women and can which feature coconut products – especially higher-value ones such as virgin coconut oil, cosmetics and nutraceuticals.

At the same time coconuts are threatened by several urgent biotic threats, including the spread of the coconut rhino beetle (particularly the Guam strain) and Bogia Coconut Syndrome, which is threatening the International Coconut Genebank for the South Pacific, near Madang in Papua New Guinea.

KEY FACTS

ACIAR Project No. HORT/2017/025
Duration: June 2019 to December 2024 (5.5 years)
Target areas: Pacific Islands, Papua New Guinea
Budget: A$2,003,117

Project Leader
Dr Carmel A. Pilotti, Pacific Community

Key partners

- The University of Queensland
- Ministry of Agriculture, Fiji
- Ministry of Agriculture and Fisheries, Samoa
- Ministry of Agriculture and Livestock, Solomon Islands
- Ministry of Agriculture, Forestry, Fisheries, Livestock and Biosecurity, Vanuatu
- Kokonas Indastri Koporesen, Papua New Guinea

ACIAR Research Program Manager
Irene Kernot

Objective

The project's aim is to support the rejuvenation of coconut-based livelihoods in the Pacific Islands by strengthening the conservation and utilisation of coconut diversity and by addressing biotic threats to coconut diversity in the region.

The objectives are to:

- Develop and deploy strategies for coconut conservation and use.
- Develop and deploy strategies for addressing biotic threats to coconuts.
- Establish and sustain a platform for coordinating coconut research-for-development initiatives.

Expected scientific results

- Improved *in vitro* culture methodology for the conservation and dissemination of coconut diversity, which will influence coconut conservation and use strategies.
- Improved coconut cryopreservation, which will contribute to a less labour-intensive and more cost-effective conservation strategy than use of field gene banks.
- Increased understanding and use of integrated pest management strategies, which will contribute to the development of similar strategies for other crops.

Expected impact/outcomes

- The secure conservation of the Pacific coconut germplasm collection.
- Improved coordination of Pacific coconut research and development.
- Improved access to information related to coconut conservation and use, and coconut rhino beetle Guam strain.
- More effective use of land clearing and pheromone traps to contain coconut rhino beetle Guam strain outbreaks.
- Additional Pacific coconut diversity identified and added to the Pacific coconut collections.
- Improved access to diverse coconut genetics for farmers in Pacific countries, and a functioning system for the safe exchange of those genetics between countries.
- Increased opportunities for smallholders to replace aged trees with appropriate cultivars, improve their livelihoods, and be part of an integrated effort to manage coconut rhino beetle Guam strain.
- Improved livelihoods of coastal smallholder farmers due to increased coconut production and quality, and development of value-adding coconut enterprises.

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