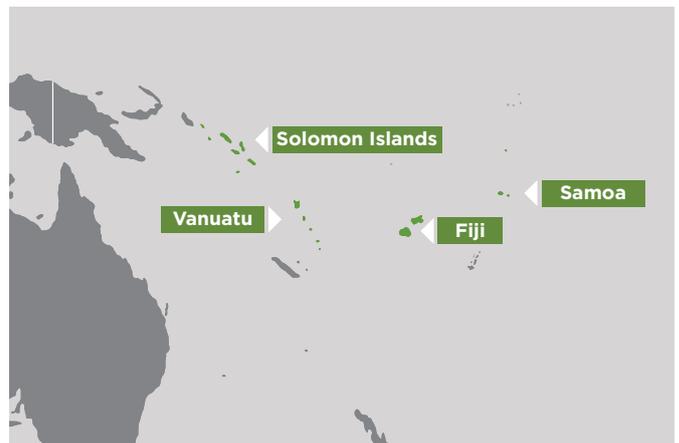




Aligning genetic resources, production and post-harvest systems to market opportunities for Pacific Island and Australian cocoa



Overview

Cocoa exports provide livelihoods for more than 50,000 households in Papua New Guinea (PNG), Solomon Islands and Vanuatu. This figure represents between one-fifth and one-third of the population in these countries.

Significant domestic or potential export industries also exist in Samoa and Fiji, and an estimated 310,000 people are directly involved in cocoa production in the South Pacific countries.

Although the volumes of cocoa produced by South Pacific countries are small by global standards, scoping studies have shown that Pacific island cocoa is well-placed to compete successfully in high-value, low-volume markets, based on fine flavour, unusual genetic resources and novel 'single origin' branding.

The adoption of a 'whole of chain' approach to the cocoa export industry will lead to increased agronomic productivity, and development and uptake of best practice in fermentation and drying to optimise cocoa quality.

Support of niche (boutique, bean-to-bar) chocolate manufacturers, linking them with producers and producer groups committed to the production of quality cocoa beans, will enhance market outcomes.

KEY FACTS

ACIAR Project No. HORT/2014/078

Duration: July 2016 to June 2020 (4 years)

Target areas: Fiji, Samoa, Solomon Islands and Vanuatu

Budget: A\$2,307,844

Project Leader

Yan Diczbalis, Department of Agriculture and Fisheries, Queensland

Key partners

- University of Adelaide
- Pacific Community
- Vanuatu Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity
- Samoan Ministry of Agriculture and Fisheries (MAF)
- Solomon Islands Ministry of Agriculture and Livestock
- Fiji Ministry of Agriculture

ACIAR Research Program Manager

Irene Kernot

Objective

The project's overall aim is to strengthen cocoa value chains in the South Pacific islands (Fiji, Samoa, Solomon Islands and Vanuatu) and Australia. The research strategy draws on expertise available in PNG and complements ongoing work in the region.

The project's specific objectives are to:

- Evaluate opportunities for Pacific cocoa industries to expand or increase the value of their markets, related to their quality attributes and industry organisation.
- Develop and implement market-orientated strategies for exchange and dissemination of cocoa genetic resources.
- Evaluate and deploy methods of intensifying cocoa production systems in response to market opportunities.
- Develop and implement improved post-harvest handling systems (especially fermentation, drying and quality controls) to deliver higher quality and better returns to producers.
- Understand the project impact on positive livelihood development, especially for women.

Expected scientific results

- Molecular markers will be used to characterise the diversity of genetic resources available, and, where possible, link these to useful production and consumer traits via sensory analysis.
- Identification of superior genetic material, and techniques to rapidly bring these clones into commercial production, will increase efficiency and impact of applied (adaptive) production and post-harvest research on the improvement of cocoa productivity and quality.
- Determine alternative and simpler techniques for production of high-quality cocoa beans through the evaluation of non-conventional bean fermentation techniques.
- Improved quality of beans through development of better fermentation and drying technology, plus the ability to identify well-fermented beans.
- Better understanding and improvement of soil nutritional levels where cocoa is grown.

Expected outcomes

- Improved cocoa production in the South Pacific through a shift away from seed propagation and towards clonal production of plants.
- Greater understanding of current roles of women and youth in cocoa production, processing, quality control, marketing and certification activities.
- Greater understanding among South Pacific cocoa producers of the importance of quality control, fermentation, drying and marketing, through training in chocolate making.
- Increased household earnings for those involved in cocoa production due to improved quality of cocoa produced and greater access to high-value, low-volume markets.

