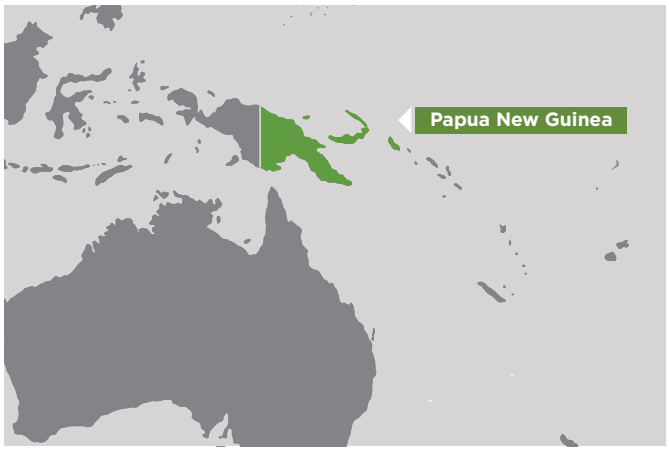
Horticulture

Australian Government
Australian Centre for International Agricultural Research

Enterprise-driven transformation of family cocoa production in East Sepik, Madang, New Ireland and Chimbu Provinces of Papua New Guinea



Overview

Cocoa production in Papua New Guinea (PNG) is an important driver of rural development – it directly involves about 150,000 smallholder farming families and accounts for 18% of agricultural exports. However, old cocoa plantings have become overgrown, resulting in low yields, under-harvesting and heavy losses to pests and diseases. This has led to widespread abandonment of the crop.

Smoking of cocoa beans during drying with wood-fired kilns has also damaged PNG's reputation for high quality cocoa.

The Cocoa Board has developed new cocoa cultivars with high yields and disease resistance, new methods of growing cocoa as a smaller tree, and small-scale postharvest processing methods that can improve quality. There is also potential to rehabilitate cocoa plantings through pruning and field grafting of improved genotypes, use of composts and incorporation of livestock to improve soil fertility.

On-farm adoption of these developments has been limited by lack of support. Some progress has been made in East New Britain and Bougainville where family-centred extension services, greater involvement of whole families in cocoa production, and engagement with industry stakeholders to foster the development of self-sustaining, village-level extension enterprises, have contributed to success.

KEY FACTS

ACIAR Project No. HORT/2014/096
Duration: March 2016 to February 2021 (5 years)
Target areas: Papua New Guinea
Budget: A$4,997,866

Project Leader
Phil Keane, LaTrobe University, Australia

Key partners
- Curtin University, Australia
- Cocoa Board, PNG
- PNG University of Natural Resources and Environment

ACIAR Research Program Manager
Irene Kernot

Objective

The project's overall aim is to foster enterprise-driven transformation and increased production and profitability of smallholder cocoa in East Sepik, Madang, New Ireland and Chimbu Provinces of PNG.

The project's three main objectives are to:

- Foster the development of profitable, self-supporting, village-based cocoa extension and other services, as micro-enterprises supported by financial institutions, commercial cocoa buying and supply companies, and existing research and extension services.
- Introduce and evaluate transformative new cocoa cultivars and cocoa selection, propagation, production and postharvest methods on farms, with farmer participation led by village extension workers.
- Introduce and evaluate options for development of new cocoa farming systems integrating food crops, livestock, and high-value shade and other tree crops.

Expected scientific results

- Ecological assessment of on-farm outcomes from the variable introduction of new methods and cocoa genotypes.
- Establishment of demonstration plots of genotypes and methods on farms, which provide multi-site trials as well as demonstration resources for farmers.
- Potential discovery of new and valuable cocoa genotypes.
- Assessment and improvement of biological control of Pod Borer in PNG.

Expected outcomes

- Improved recommendations for production, processing and marketing of cocoa tailored to the communities and climates of East Sepik, Madang and New Ireland Provinces and certain lower highland valleys.
- Benefits to communities in these provinces from improved cocoa production, processing, marketing and profitability.
- Establishment by individuals or farmer groups of profitable cocoa farming, and cocoa advisory and other businesses linked to financial institutions and cocoa buying and supply companies.
- Wider family-labour (including women and youth) involvement in and livelihood benefits from cocoa production.
- Improved understanding and community experience in integration of cocoa with livestock, food crops and high-value shade trees such as coconut.
- Greater capacity of government research and extension services through links to village-based extension workers, farmers groups and agri-businesses.
- Enhanced connections between Department of Primary Industry extension services and the research community.
- Greater understanding of the cocoa value chain, value chain development and the roles of the various value chain participants.
- Improved marketing of cocoa.
- Better public-private partnerships in cocoa research and development.

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