



Social Sciences

Improving Livelihoods of Smallholder Coffee Communities in Papua New Guinea

Overview

Coffee is the second largest agricultural export in Papua New Guinea (PNG) and employs around 2.5 million people. Coffee is grown in 17 of the country's 22 provinces, with over 85% produced by smallholders. It is the primary source of household income for many highland communities.

Despite coffee's economic importance for rural livelihoods, national production has declined to less than one million bags per year. A previous project found farmers' knowledge of coffee husbandry, including pest and disease management, and post-harvest practices to be very low, and a major barrier to improving production and quality. The recent arrival of the Coffee Berry Borer (CBB) highlights the urgency of improving farmers' technical knowledge to address this potentially devastating pest.

Population pressure and land shortages are also constraining coffee and food production. Land pressures were reflected in a trend towards permanent cultivation of food crops, the addition of synthetic fertilisers to maximise production for the market in the absence (or reduction) of fallow periods, subdivision of coffee holdings among family members, the conversion of coffee gardens to food production and land disputes over coffee gardens.



KEY FACTS

ACIAR Project No. ASEM/2016/100

Duration: October 2017 to December 2021 (4 years)

Target areas: Papua New Guinea

Budget: A\$1,643,586

Project Leader

Prof George Curry, Curtin University

Key partners

- Office of Research and Development
- Coffee Industry Corporation
- CSIRO Agriculture and Food

ACIAR Research Program Manager

Dr Jayne Curnow



Objective

The project's overall aim is to increase returns to labour, particularly for women, through the adoption of new technologies and farming practices that improve coffee quality and total production.

The project's specific objectives are to:

- Develop, field test, refine and facilitate the uptake and use of an extension training package by government, private sector, the Productive Partnerships in Agriculture Project (PPAP) and NGO-supported extension providers.
- Develop a model for demucilager use by farmer groups that delivers social and economic benefits to men and women and which is compliant with the environmental criteria of the main certification organisations.
- Identify and develop culturally acceptable and nutrient efficient coffee-vegetable intercropping systems as a means to increase coffee yields and incomes and improve income-earning opportunities for women.
- Assess the social and economic benefits to smallholders of direct cherry sales to processors and quantify changes in the amount and distribution of household income between men and women.

Expected scientific results

- A better understanding of the effectiveness of different combinations of extension media for communicating information to farmers.
- An understanding of pulp and waste water management problems associated with the use of demucilagers and how to address these problems.
- An understanding of the advantages of intercropping.
- Research outcomes (what works, what doesn't, what influences adoption, what slows down adoption) to have scientific impacts outside this project and outside PNG through the project staff's involvement in other projects.

Expected outcomes

- Approximately 400 smallholder farmers (men and women and their families) expected to earn higher incomes from better quality of coffee, higher production, reduced costs and strengthened resilience of their coffee-based livelihood system.
- All government and private sector extension delivery agents in the highlands able to access the training package developed by the project, potentially reaching about half of the 524 000 coffee growing households.
- The introduction and promotion of demucilagers to significantly increase the returns to labour through greater labour efficiency and higher prices from better quality parchment.
- Demucilagers to assist processors/exporters by raising quality and returns to both farmers and processors/exporters and to provide an incentive for stronger engagement between the two groups.
- Intercropping of coffee with food crops in areas facing population pressure expected to enhance food security and provide an additional income source for women while also increasing coffee yields.

