

# Papua New Guinea

**A\$4.6** million  
investment in agricultural  
research for development

## 22 projects



15

Bilateral and regional  
research projects



7

Small projects and research  
activities



17

Projects specific to  
Papua New Guinea



5

Regional projects

**Note:** Additional projects may be commissioned during 2024–25.



**Agriculture is the primary economic activity of Papua New Guinea and is dominated by smallholder farming systems that support food, cash crop and livestock production. It generates income for more than 80% of the rural population and export revenue for the government. Agriculture contributes to around 30% of the country's gross domestic product.**

In 2023, the government launched the Medium-Term Development Plan 4, 2023–2027 (MTDP4), which outlines strategies to grow the economy. Commercial agriculture, livestock development, forestry and fisheries featured among several broad-based investment strategies to drive economic and social development. On 27 May 2024, the government launched the National Agriculture Sector Plan 2024–2033 which aligns to the medium-term development plan and has the vision to 'make agriculture the engine for socio-economic growth and development through commercial agriculture'. Commodity commercialisation (including downstream processing and value adding), agriculture infrastructure, private sector participation and research and development (R&D) are among the major investment programs outlined in the plan.

The government anticipates 3% growth in the agriculture, fisheries and forestry sectors in 2024, based on forecasts by the Asian Development Bank. Increasing productivity, efficiency and profitability of smallholder crop and livestock (including fisheries) farming systems, value adding and access to markets will enhance broader participation by women, men and youth in new opportunities and economic activities.

### **Rural communities**

The population of Papua New Guinea is projected to reach 10.8 million in 2025. Currently, 88% of the population lives in rural areas. The proportion of young people is increasing, with demographics in 2021 showing more than 22% of population less than 18 years of age and almost 36% between 18 and 44 years. Continued population growth is leading to a youth bulge in the population. A recent survey by the International Food Policy Research Institute (IFPRI) showed almost 60% of individuals under 25 years lived in rural communities. Creative strategies to engage the growing population are necessary to avoid increasing pressure on natural resources and agrifood systems. The highlands region will be particularly challenged being already more densely populated than the lowland regions. Rivalry amongst different ethnic groups, social structures and land tenure systems in many communities also poses a threat to agrifood systems.

### **Political and economic environment**

Papua New Guinea started the 2024 year with civil unrest, with 17 January marked as Black Wednesday due to a riot, mass looting and vandalism in Port Moresby, which spread to other cities in the country. The riot was due to confusion related to decisions to increase tax on salaries and a glitch of the payroll system in the Department of Personnel Management. The civil unrest, supported by the police force, grew from frustration of the public due to increasing inflation, unemployment, general hardship and an unstable political environment. This, together with the aviation fuel crisis, has affected travel within the country, which in turn has affected ACIAR by postponing several in-country project meetings and reviews. Inflation continues to rise, which poses future threats of civil unrest and high costs of operation in the country for 2024 and 2025.

### **Climate change**

Most rural communities and households in Papua New Guinea depend on locally grown rainfed crops for food and income. Few have access to reliable information, plans or adaptive capacity to manage the threats and risks of climate variability and climate change. A drought in 2016 resulted in widespread hunger in the highlands. In 2023, an extremely dry season in 3 lowland provinces resulted in severe crop loss, affecting food security in a number of rural communities. Climate variability has affected crop seasonality, causing changes to production patterns, such as flowering and fruiting times of crops. Farmers are concerned that disruption to planting seasons will lead to periods of hunger due to late cropping.

### **Food insecurity**

The risks to household food security are influenced by several factors, including population growth coupled with low economic growth, changing attitudes to food consumption and diets, and increasing inflation. These factors have placed enormous pressure on existing food systems in terms of production and distribution of and access to food. An indication of the risk has been the continuous malnutrition and stunting affecting increasing numbers of children. The Health Department has raised this as an issue of importance, supported by an IFPRI survey which reported 34% of children under 5 years of age, in the survey, being stunted in their growth. In rural communities, long-term effects on health due to malnutrition and under-nutrition will impact labour availability and productivity. Enhancing natural resource management, seed quality, crops and livestock production systems and awareness of food consumption patterns will increase resilience of communities and agriculture systems.

## Partnering with Australia

With shared history and shared geography, Australia values its long-standing ties with Papua New Guinea. The relationship has evolved to reflect a more mature, focused and innovative response to development priorities. Australia's development partnership with Papua New Guinea is governed by a comprehensive strategic and economic partnership, which reinforces the strong bonds between the 2 countries and strengthens an ambitious vision for the future.

The recently established Australia–Papua New Guinea Economic Development Partnership sets out 5 pillars through which Australia will deliver economic aid. Pillar 4 focuses on agriculture and aims to support work around export facilitation, local supply chains, biosecurity and agricultural productivity. Australia also supports agricultural development in the country through its other regional and multilateral programs, GrowPNG and the International Finance Corporation, which aim to support work around large-scale commercial agriculture and agribusinesses.

In agricultural research, Australia's support through ACIAR plays a significant role in building the resilience of smallholders and the capability of supporting organisations, and will continue to support Papua New Guinea in moving towards more sustainable agriculture, fisheries and forestry livelihood systems. Within the national landscape, the new National Agriculture Development Plan places a spotlight on the need to commercialise agriculture and the importance of private sector partnership for growing businesses and developing the sector. The plan identifies the role of science and research in improving agricultural systems and natural resource management, to increase the resilience of livelihoods.

## Country priorities

ACIAR works with Australian and in-country partners in Papua New Guinea to improve the productivity and resilience of agrifood systems and enhancing access to markets and services.

In 2024–25, ACIAR research partnerships with Papua New Guinea will continue to focus on the sectors of horticulture, livestock, fisheries and forestry, striving to understand how to achieve scientific and socioeconomic benefits. Ultimately, the research works to secure improvements in food supply, food access and rural incomes for smallholders through increased productivity and enhanced access to markets and services.

The research partnerships established by ACIAR between partners in Australia and Papua New Guinea aim to:

- » overcome social, cultural and policy obstacles to benefits from agricultural technologies, particularly with respect to gender equity and women
- » improve smallholder vegetable production and starchy staple systems

- » analyse commodity and market chains to guide policy and improve production and marketing for cocoa, coffee, coconut and oil palm crops
- » enhance germplasm quality for high-value tree species to improve community forestry and agroforestry systems
- » work with private sector partners and farmers to adopt promising agricultural technologies
- » monitor and identify options for managing biosecurity threats
- » enhance livelihoods from smallholder fisheries, and inland and marine aquaculture
- » increase household income through diversifying agricultural and related value chain enterprises.

In 2024–25, ACIAR will work with partners to design an integrated strategy and program of agricultural research for development between ACIAR and key partners in Papua New Guinea.

The building of individual and institutional capacity in Papua New Guinea is a critical part of Australia's support of agricultural development. This is achieved through targeted activities within projects to train researchers, as well as support for scientists to complete postgraduate degrees in Australia, through fellowship programs.

ACIAR will continue to support partner institutions to build the capacity of research personnel through long-term and short-term courses, informal networking events and hands-on experience at the project level. Through this process, ACIAR plays a very significant role in contributing to the development of human capital of Papua New Guinea to gain skills and knowledge in sustainable agriculture, fisheries and forestry.

## 2024–25 research program

In 2024–25, ACIAR supports 22 agricultural research-for-development projects in Papua New Guinea, 17 of which are specific to this country and the remainder are part of regional projects.

The projects address the high-level objectives outlined in the ACIAR 10-Year Strategy 2018–2027, as well as specific issues and opportunities identified by partner countries and ACIAR.

All research investments have the underlying goal of contributing to:

- » agrifood systems and rural communities resilient to the impacts to climate change
- » equitable research benefits and outcomes for all community members
- » increased scientific and policy capability of individuals and partner institutions.

### Country Manager, Papua New Guinea






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### Research Program Managers

Visit [aciar.gov.au](https://aciar.gov.au) for contact details



## Current and proposed projects in Papua New Guinea, 2024–25

Program	Project title & code	Countries			
	<b>Crops</b>				
	Finding a genetic basis for oil palm responses to basal stem rot in a long-term infected block <b>CROP/2021/130</b>	Papua New Guinea	01/06/22	30/06/27	A\$755,995
	Enhancing drought tolerance and food security in Papua New Guinea: the potential of new taro germplasm <b>CROP/2023/194</b>	Papua New Guinea	15/11/23	30/06/25	A\$267,539
	<b>Fisheries</b>				
	Improving peri-urban and remote inland fish farming in Papua New Guinea to benefit both community-based and commercial operators <b>FIS/2018/154</b>	Papua New Guinea	01/10/22	30/06/28	A\$2,682,266
	Towards more profitable and sustainable mabé pearl and shell-based livelihoods in the western Pacific <b>FIS/2019/122</b>	Fiji, Papua New Guinea, Samoa, Tonga	01/01/22	30/06/27	A\$2,966,250
	<b>Forestry</b>				
	Enhancing private sector-led development of the canarium industry in Papua New Guinea (Phase 2) <b>FST/2017/038</b>	Papua New Guinea	01/12/19	31/05/25	A\$3,061,851
	Promoting smallholder teak and sandalwood plantations in Papua New Guinea and Australia <b>FST/2018/178</b>	Papua New Guinea	01/01/22	31/12/25	A\$2,201,386
	Developing nut industries in Bougainville <b>FST/2022/124</b>	Papua New Guinea	01/07/23	30/06/25	A\$250,000
	<b>Horticulture</b>				
	Responding to emerging pest and disease threats to horticulture in Pacific island countries <b>HORT/2016/185</b>	Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga	01/04/18	31/03/25	A\$5,360,526
	Safeguarding and deploying coconut diversity for improving livelihoods in Pacific island countries <b>HORT/2017/025</b>	Fiji, Papua New Guinea, Samoa, Solomon Islands, Vanuatu	01/05/19	31/03/25	A\$2,176,124
	Protecting the coffee industry from coffee berry borer in Papua New Guinea and Australia <b>HORT/2018/194</b>	Papua New Guinea	01/07/19	31/12/26	A\$2,400,500
	Pan genome analysis to support innovative utilisation of coconut germplasm resources in the Pacific and Southeast Asia <b>HORT/2023/158</b>	China, Fiji, Indonesia, Kiribati, Papua New Guinea, Philippines, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu	01/01/25	30/06/29	A\$3,700,000
	Using carbon markets to drive multiple benefits for Papua New Guinea coffee farmers <b>CLIM/2022/109</b>	Papua New Guinea	02/12/24	28/02/29	A\$2,565,000
	Evaluating carbon markets as a pathway to establishing climate resilient coffee agroforestry systems in Papua New Guinea <b>CLIM/2024/101</b>	Papua New Guinea	08/04/24	30/06/25	A\$436,253
	<b>Livestock Systems</b>				
	Strengthening beekeeping industries for improved production and livelihoods in Papua New Guinea and Solomon Islands <b>LS/2014/042</b>	Fiji, Papua New Guinea, Solomon Islands	01/07/19	31/12/27	A\$3,100,000
	Strengthened surveillance for vector-borne zoonotic and livestock diseases in Papua New Guinea <b>LS/2021/158</b>	Papua New Guinea	19/04/22	31/03/25	A\$250,000

Program	Project title & code	Countries			
	<b>Social Systems</b>				
	Climate-smart agriculture opportunities for enhanced food production in Papua New Guinea <b>ASEM/2017/026</b>	Papua New Guinea	18/03/19	31/03/25	A\$2,823,830
	Mitigating gender-based violence risk in international agricultural research <b>SSS/2022/116</b>	Papua New Guinea	01/06/23	31/12/24	A\$250,000
	Developing an inclusive co-design process for strengthening food security in Western Province, Papua New Guinea <b>SSS/2023/134</b>	Papua New Guinea	01/04/25	31/03/30	A\$3,500,000
	<b>Soil &amp; Land Management</b>				
	Better soil and land information for improving PNG agricultural production and integrated land use planning: building a revitalised PNGRIS2 <b>SLAM/2019/106</b>	Papua New Guinea	01/10/22	31/08/26	A\$2,800,002
	Optimising soil management and health in Papua New Guinea integrated cocoa farming systems (Phase 2) <b>SLAM/2019/109</b>	Papua New Guinea	21/06/21	31/12/26	A\$2,600,001
	Sustaining soil fertility in support of intensification of sweetpotato cropping systems <b>SMCN/2012/105</b>	Papua New Guinea	15/02/16	30/04/25	A\$3,073,417
	<b>Water</b>				
	Improving water governance in Papua New Guinea <b>WAC/2023/180</b>	Papua New Guinea	01/10/23	31/03/25	A\$460,000

**Note:** Additional projects may be commissioned during 2024–25.



**More information** about our projects is available on the ACIAR website. Search for the project title or project code.  
**[www.aciar.gov.au](http://www.aciar.gov.au)**