

# Pacific island countries

**A\$13.6**<sub>million</sub>  
investment in agricultural  
research for development

**37 projects**



**30** Bilateral and regional  
research projects



**7** Small projects and research  
activities



**29** Projects specific to  
Pacific island countries



**8** Regional projects

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



**Pacific island countries and territories are home to abundant natural resources and significant geographic and cultural diversity. However, small and dispersed populations, limited economies, and vulnerability to natural disasters present development challenges across the region.**

Over the past 2 decades, the coastal regions of Pacific island countries have undergone considerable change and development, however this increases the number of people that are more susceptible to natural climate variation and extreme weather events.

The International Monetary Fund estimates that Pacific island countries need to invest 6–9% of their GDP annually, over the next decade, to ensure their infrastructure is climate resilient and to protect coastal environments. However, access to international climate finance has fallen significantly short of this target.

Additionally, the region is confronting significant issues related to non-communicable diseases such as diabetes and obesity. These diseases account for around 75% of deaths in the region and their prevalence is influenced by food availability and consumption patterns.

Despite the threatening impacts of climate change, agriculture remains a vital source of income and livelihood for much of the population across the region and is a significant earner of foreign exchange. To ensure sustainable livelihoods, particularly in rural areas, the improvement of diets and programs to foster economic growth through trade are crucial development goals.

### **Rural communities**

The populations of Pacific island nations are predominantly rural – up to 80% in some countries. Agriculture, forestry and fisheries are the backbone of the region's economy and culture, sustaining not only the livelihoods of millions but also playing a crucial role in maintaining food security.

The outmigration of Pacific islanders for seasonal work programs creates labour shortages, impacting productivity on farms and food production systems.

With over half the population in the Pacific region under the age of 23, the 'youth bulge' is anticipated to significantly influence the region's future development. This trend, particularly pronounced in the Melanesian countries of Papua New Guinea, Solomon Islands and Vanuatu, brings challenges such as rising unemployment and poverty, declining education quality, increased strain on fragile social services, more chronic health issues, and a heightened risk of social instability.

### **Political and economic environment**

More than half of the world's population is voting in 2024, including 4 Pacific nations. Leadership changes from major elections in countries like the United States, the United Kingdom, India and Indonesia potentially alter priorities for engagement in the Pacific region. Within the region, civil unrest in New Caledonia, Solomon Islands and Papua New Guinea also affects the operation and progress of research programs to varying extents.

### **Climate change**

In addition to the detrimental effects on crop yields and agricultural output, climate change will negatively impact income levels from agriculture, food consumption, calorie availability, and child malnutrition severity.

Climate change and climate variability are having wide and varied impacts across the Pacific region. The transition from the El Niño event in late 2023 to a La Niña event expected in the second half of 2024 is expected to have a drastic effect on the region's food and water security, particularly in the agriculture and fisheries sectors where commodity yields are dependent on weather conditions.

During a La Niña event, reduced rainfall in some equatorial countries, like Tuvalu and Nauru, has led to water shortages and droughts. These conditions negatively impact local food sources like taro, banana and grapefruit. Conversely, in countries like Fiji and Solomon Islands, La Niña typically causes warmer ocean temperatures, increased rainfall and flooding leading to waterlogged crops, and a greater risk of diseases such as typhoid and dengue fever.

The impact of these events extends beyond land to the Pacific Ocean, which produces around 60% of the world's tuna catch (about 3 million tonnes worth close to US\$7 billion annually). Known for its migratory traits, tuna tends to move eastward during El Niño events and westward during La Niña.

As the Pacific navigates through these challenges, efforts to improve sustainability and resilience in the agriculture, fisheries and forestry sectors will be pivotal. The ability of the region to further harness its strengths and address its vulnerabilities will define its economic trajectory in the year ahead.

## Food insecurity

Food insecurity is a growing challenge for Pacific island countries in the face of rapid urbanisation and increasing food importation. The World Health Organization has noted that despite an increase in calorie intake, the nutritional health of the Pacific population has deteriorated. This decline is linked to a transition from traditional diets to predominantly imported, low-quality foods. As a result, Pacific islanders are now experiencing some of the highest rates of obesity, diabetes, and micronutrient deficiencies globally. The slowing of agricultural output growth and declining income growth due to climate change could potentially worsen the issue.

## Partnering with Australia

Australia has a long association with the countries of the Pacific region due to geographical proximity and through trade, investment and development relationships. Australia has supported and contributed development assistance according to the national development plans of individual countries partners, as well as supporting regional programs addressing biosecurity, climate-resilient agriculture, and food and nutrition security.

Australia's International Development Policy emphasises building resilience to the impacts of climate change, protecting the Pacific's ecosystems, and supporting economic diversification and gender empowerment in the region. These efforts will be formalised through Development Partnership Plans with specific countries in 2024. ACIAR, a key research and development partner since 1982, aligns its 10-year strategy with Australia's broader development objectives, reinforcing its commitment to the Pacific.

## Regional priorities

The ACIAR program in the Pacific region has the goal of enabling regional collaboration in research and capacity building to address common issues and opportunities across the region. Our regional partner, SPC, emphasises integrated approaches to increasing resilience through research for development, including:

- » deploying a diversity of species and products in trees, crops, livestock and aquaculture to increase resilience in the face of uncertainty
- » growing a greater number and diversity of trees in forestry, agroforestry and horticulture systems to contribute to more sustainable and resilient agricultural landscapes
- » diversifying crops to contribute to greater food security, nutrition and health
- » better managing coastal fisheries and aquaculture to underpin healthier nutrition and more-resilient livelihoods
- » strengthening market chains for greater equity and inclusion to contribute to improved and more-resilient livelihoods.

This regional direction guides ACIAR in brokering and supporting bilateral and regional research projects that address climate-resilient livelihoods, biosecurity, opportunities for stronger agribusiness development, community-based fisheries management, integrated food systems and nutrition.

ACIAR remains committed to supporting alumni and its capacity development programs and fellowships. By collaborating with Australian and international researchers, the ACIAR alumni offer valuable insights into the approaches that can enhance local food security resilience against external shocks and help identify strategies to secure future food supplies in the Pacific region.

The building of individual and institutional capacity in Pacific island countries 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. In particular, the Pacific Agricultural Scholarship Support program, facilitated by ACIAR in partnership with the University of the South Pacific and Fiji National University, provides career advancement opportunities for researchers, as well as a framework for building institutional capacity by enabling researchers to undertake studies within their home region.

## 2024–25 research program

In 2024–25, ACIAR supports 37 agricultural research-for-development projects in Pacific island countries, 30 of which are specific to these countries and the remainder are part of wider 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 country partner organisations 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.

### Regional Manager, Pacific

Ms Mai Alagcan

### Research Program Managers




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## Current and proposed projects in Pacific island countries, 2024–25

Program	Project title & code	Countries	Start	End	Total investment
	<b>Agribusiness</b>				
	Evaluating an alternative approach to sector development in Pacific island countries <b>AGB/2022/113</b>	Fiji	01/03/24	01/03/27	A\$1,670,000
	<b>Crops</b>				
	Scoping opportunities and research gaps for developing groundnut in Vanuatu <b>CROP/2023/186</b>	Vanuatu	01/11/23	30/06/25	A\$575,411
	Sustainable agricultural intensification systems for climate resilient development in Pacific island countries <b>CLIM/2020/186</b>	Samoa, Tonga	01/02/23	31/12/26	A\$1,633,625
	<b>Fisheries</b>				
	Half-pearl industry development in Tonga and Vietnam <b>FIS/2016/126</b>	Tonga, Vietnam	01/09/17	31/12/24	A\$1,450,515
	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
	Innovating fish-based livelihoods in the community economies of Timor-Leste and Solomon Islands <b>FIS/2019/124</b>	Solomon Islands, Timor-Leste	01/09/21	31/12/25	A\$2,444,000
	Coalitions for change in sustainable national community-based fisheries management programs in the Pacific	Kiribati, Solomon Islands <b>FIS/2020/172</b> , South Pacific general, Vanuatu	01/09/21	31/12/25	A\$7,664,545
	Extending integrated analysis for improved food system outcomes in Timor-Leste and the Pacific region <b>FIS/2022/121</b>	Kiribati, Solomon Islands, Timor-Leste, Vanuatu	01/10/23	30/09/26	A\$2,500,000
	Supporting resilient and equitable food systems: emerging oyster and seaweed mariculture enterprises and an exploration of co-culture of seaweeds in coastal communities in Fiji and northern Australia <b>FIS/2022/147</b>	Fiji	01/04/24	31/03/29	A\$2,962,884
	Planim Fiuja fo Yumi: co-planning climate-smart and equitable livelihood futures with small-scale fishing communities through a participatory and integrated approach to community engagement <b>FIS/2023/122</b>	Solomon Islands	22/01/25	21/09/29	A\$3,816,085
	Mitigating the incidence of ciguatera poisoning in Kiribati <b>FIS/2023/161</b>	Kiribati	01/04/24	31/03/26	A\$491,737
	<b>Forestry</b>				
	Coconut and other non-traditional forest resources for the manufacture of engineered wood products <b>FST/2019/128</b>	Fiji	01/02/21	31/01/26	A\$2,862,872
	Livelihoods in forest ecosystem recovery <b>FST/2020/135</b>	Solomon Islands	01/11/22	31/10/28	A\$3,544,264

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	<b>Horticulture</b>				
	Adopting a gender-inclusive participatory approach to reducing horticultural food loss in the Pacific <b>CS/2020/191</b>	Fiji, Samoa, Solomon Islands, Tonga	08/02/22	31/03/25	A\$926,827
	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
	Improving root crop resilience and biosecurity in Pacific island countries and Australia <b>HORT/2018/195</b>	Fiji, Samoa, Solomon Islands, Tonga	01/01/22	31/12/25	A\$2,050,001
	Enhanced fruit systems for Tonga and Samoa (Phase 2): community based citrus production <b>HORT/2019/165</b>	Samoa, Tonga	01/09/21	30/06/25	A\$1,227,722
	Driving vegetable food environments to promote healthy diets in Pacific island countries <b>HORT/2021/141</b>	Fiji, Samoa, Tonga	20/03/23	19/09/25	A\$642,304
	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
	Resilient commercial vegetable production systems for Pacific island countries <b>HORT/2023/165</b>	Fiji, Samoa, Tonga	01/07/24	25/06/27	A\$1,200,000
	<b>Livestock Systems</b>				
	Testing and adapting the Pacific Regional Research Collaborative Framework <b>GMCP/2023/178</b>	Fiji, Kiribati, Palau, Samoa, Solomon Islands, Tuvalu, Vanuatu	01/07/23	30/06/25	A\$497,763
	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
	A farm-planning approach to increase productivity and profitability of smallholder cattle systems in Vanuatu <b>LS/2018/185</b>	Vanuatu	01/01/22	31/12/25	A\$1,770,000
	Enhancing the management of antimicrobial resistance in Fiji and Samoa <b>LS/2019/119</b>	Fiji, Samoa	01/01/20	30/06/27	A\$4,660,747
	Supporting greenhouse gas inventories and livestock data development in Fiji <b>CLIM/2021/160</b>	Fiji	06/10/23	28/11/25	A\$735,278

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	<b>Social Systems</b>				
	Improving agricultural development opportunities for female smallholders in rural Solomon Islands <b>SSS/2018/136</b>	Solomon Islands	01/01/20	30/06/25	A\$1,013,000
	Landcare: an agricultural extension and community development model at district and national scale in Fiji <b>SSS/2019/140</b>	Fiji	01/03/21	30/04/25	A\$2,999,550
	Climate-smart regenerative ridge to reef landscapes for sustaining livelihoods of communities on custom land and food security in Vanuatu <b>SSS/2021/120</b>	Vanuatu	14/09/23	31/08/27	A\$1,696,935
	Intersectionality and gender diverse climate change action in the Pacific: eliciting a Pasifika-led policy for future engagement <b>SSS/2023/183</b>	Fiji, Kiribati, Solomon Islands	01/02/24	31/12/25	A\$500,000
	Transformation pathways for Pacific coastal food systems <b>CLIM/2020/178</b>	Kiribati, Solomon Islands	01/02/23	31/03/26	A\$1,965,540
	Governing co-benefits from circular food waste to energy systems in the Pacific <b>CLIM/2022/107</b>	Fiji	01/07/24	31/12/26	A\$2,000,000
	Scoping the governance and co-benefits of circular food-energy systems in Pacific island countries <b>CLIM/2022/174</b>	Fiji	01/06/23	30/06/25	A\$250,000
	<b>Soil &amp; Land Management</b>				
	Soil management in Pacific islands countries: investigating nutrient dynamics and the utility of soil information for better soil and farming system management <b>SLAM/2020/139</b>	Fiji, Samoa, Tonga, Vanuatu	01/01/23	31/12/27	A\$2,650,221
	A review of the soil and agronomic constraints and opportunities in Pacific food garden systems <b>SLAM/2022/180</b>	Fiji, Samoa, Tonga	01/05/23	31/03/25	A\$250,000
	Assessment of the capacity and sustainability of Pacific Agricultural Chemistry Laboratories <b>SLAM/2022/181</b>	Fiji, Samoa, Solomon Islands, Tonga, Vanuatu	13/03/23	28/02/25	A\$500,000
	<b>Water</b>				
	Water security for locally relocated coastal communities in the western Pacific region <b>WAC/2022/128</b>	Fiji, Vanuatu	01/04/24	01/12/27	A\$2,250,000

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