

An unusual program enabling Pacific agricultural transformation

by Richard Markham

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Participants at a climate resilience workshop in Fiji
Photo Credit: Richard Markham

One of the challenges associated with tackling the slowly evolving and interlinked crises associated with climate change is that there are few visible milestones to mark their dismal progress and attract the necessary attention of the development community, let alone the broader public.

In October 2024, the Food and Agriculture Organization’s Pacific Office provided, without the fanfare it surely deserved, one such milestone in the form of a report entitled *An overview of food security and nutrition in the Pacific 2022*. Behind the humdrum title lies a remarkable effort to pull together the perspectives of agencies that work across the spectrum of sustainable development – in agriculture but also in food and nutrition, health and education. The title sets this baseline assessment in 2022 but the two-year delay in bringing this evaluation to light underlines the challenge of achieving consensus in this complex field.

A corresponding challenge of marking slow-but-positive progress faces those trying to build solutions to these “wicked problems” – in the form of more climate-resilient agrifood systems. At December 2024, another small but important milestone on the solution-building side also seems to be passing under the radar. The *Pacific Agricultural Scholarship, Support and Climate Resilience program* (PASS-CR) is winding up, bringing to a close 16 years of targeted research capacity building, with some 140 postgraduate scholars having passed through or currently completing the program.

At the 2024 Australasian AID Conference, three of us who have been involved in the program for most of its lifetime presented *a paper seeking to capture the key lessons learned*. Based on our own experience and the gathered testimony of alumni of the program, we propose that this program offered a uniquely effective way to address the crisis in Pacific agri-food systems, and that this model deserves to be built on and expanded, not buried in the archives of development history.

PASS-CR was a program of the [Australian Centre for International Agricultural Research](#) (ACIAR). ACIAR's research-for-development agenda is based on a partnership model that links researchers in Australia with fellow researchers and development practitioners in developing countries, to tackle problems – in agriculture, forestry, and fisheries – that are identified as priorities in dialogue with national governments and organisations.

Like many other agencies, ACIAR has offered, for much of its 40-year history, postgraduate scholarships to help build the capacity of the national research organisations it partners with. In 2008-2009, ACIAR and the University of the South Pacific (USP) launched a scholarship program with various novel characteristics that explicitly extended ACIAR's project partnership model to capacity building. It focused on a Master of Science (MSc) by research (though with some postgraduate diploma and PhD scholarships); rather than travelling to Australia for their studies, students were registered at USP (or, from 2019 onwards, with Fiji National University (FNU)); and the students carried out their thesis research linked to an ACIAR project, with an external co-supervisor provided by the project.

Results from these early years showed that the model was remarkably successful in generating capacity and enthusiasm for applied, problem-solving research, and that many alumni were then [successful in building their careers](#) within their national agricultural research systems. However, it also became apparent that students needed a lot more than just a grant if the program was to achieve lasting positive outcomes. Hence, a much more sophisticated level of support and a more strategic approach to capacity building in the region was provided from 2019-2020 onwards, during the third phase of the scholarship program. At this point, ACIAR co-invested in a contract with the University of the Sunshine Coast, to partner with USP and FNU to provide a range of support for students, supervisors and management.

The program's Theory of Change shows how co-building individual capacity, institutional capacity and networks enables the functional elements of an agricultural innovation system for the Pacific, closely networked with the highly effective innovation system of Australia.

A key proposition here is that Pacific island states individually do not have the "critical mass" of research disciplines and other resources to generate the kind of cross-sectoral innovation needed to generate transformative change and tackle the challenges of improving the climate resilience of food systems; but working together, and effectively networked with partners in Australia and internationally, it becomes feasible to generate this quality of innovation in the Pacific.

Our preliminary evaluation of outcomes, based on individual interviews and a small

survey of alumni, suggests that the program has been remarkably successful in strengthening capacity and supporting innovation in key areas.

To take just one example, there is a growing body of evidence suggesting that [collapsing soil fertility on a degrading natural resource base](#) is at the root of falling productivity across cropping systems and countries in the Pacific. Two Fiji Ministry of Agriculture staff, an analytical chemist and an extension officer, started their journey working on an ACIAR project designed to tackle a crisis related to collapsing soil fertility in Fiji's multi-million dollar taro export industry. Both started with an ACIAR MSc scholarship at USP and went on to PhD studies under other programs. Both returned to higher-level leadership positions. Through their growing network of research projects and partners, they introduced innovations: for instance, "soil health report cards" now support the soil management decisions of individual farmers in Fiji; and the adoption of Near Infra-Red Spectroscopy as a rapid, cost-effective approach to soil analysis at the government's soils laboratory has not only enhanced the value of this facility to Fiji but promises to make it a valuable hub for neighbouring Pacific countries as well. Meanwhile, the former extension officer has become the head of the soils program at the regional research organisation, The Pacific Community, helping to make the [Pacific Soils Portal](#) and other resources available to the entire Pacific.

Finally, in a modest but innovative and ambitious experiment, the "CR" (climate resilience) component of the PASS-CR program sought to mainstream an understanding of climate science and its implications into the existing research (in agriculture, forestry and fisheries) of the ACIAR-supported scholars, via a competitive small grants scheme dubbed the Future Thinkers initiative. The initiative was terminated (through an administrative decision on the part of the donor), after only two years and before it had had a chance to properly prove its value, but the initial outcomes appear very promising – such as the opportunity for a young Rotuman islander to [take the results of his taro research to COP27](#) in Egypt. We believe this initiative deserves to be extended, with more resources, and its outcomes properly evaluated before a decision is made on whether or not to invest further.

This brief and relatively informal study, conducted by participant-observers currently or previously involved in the program, has generated evidence of the effectiveness of the ACIAR model in enabling and promoting innovation for more climate-resilient agri-food systems in the Pacific. A larger and more rigorous independent evaluation of outcomes is now needed, in line with ACIAR's normal external review process for research programs, to provide a sound base for good decision making on investments going forward in Pacific agricultural research capacity for greater resilience.

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Disclosures:

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