



**Australian Government**

**Australian Centre for  
International Agricultural Research**

# External Review

**of the ACIAR-USP Postgraduate Scholarship  
Program Phase 2 (2015-2019) & the USC-USP  
Twinning Scheme (2016-2020)**





The ARSF grant is helping Mr Butubu also undertake research into livestock. He has collected different chicken breeds for interbreeding trials to identify breeds with improved growth, weight and egg production.

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Program Phase 2 (2015-2019) & the USC-USP  
Twinning Scheme (2016-2020)**



**ACIAR**

2021

The Australian Centre for International Agricultural Research (ACIAR) was established in June 1982 by an Act of the Australian Parliament. ACIAR operates as part of Australia's international development cooperation program, with a mission to achieve more productive and sustainable agricultural systems, for the benefit of developing countries and Australia. It commissions collaborative research between Australian and developing-country researchers in areas where Australia has special research competence. It also administers Australia's contribution to the International Agricultural Research Centres.

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All photographs provided by ACIAR

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Mr Hoang Minh Giang is cutting grass for his cattle.



# 1 Introduction

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The ACIAR-USP Postgraduate Scholarship Scheme (USP-PSS) is a capacity-building partnership between the Australian Centre for International Agricultural Research (ACIAR) and the University of the South Pacific (USP).

The USP-PSS provides scholarships in agriculture – broadly defined to include the disciplines of horticulture, forestry, fisheries (including aquaculture), agricultural economics and agribusiness – at either of the USP campuses: the Laucala Campus in Suva, Fiji, or the Alafua Campus in Apia, Samoa.

Scholarships cover postgraduate diplomas and master's, as well as PhDs for part of the period of the PSS. Since its inception in 2008, the program has supported 91 students from Fiji, Kiribati, Samoa, the Solomon Islands, Tonga, Tuvalu and Vanuatu. Thesis research for MSc/MA and PhD candidates is undertaken in association with an ACIAR collaborative research project currently active in the Pacific. This provides the students with hands-on experience of problem-solving research, preferably in the student's country of origin. The ACIAR Project Leader, or another senior scientist associated with the project, provides external co-supervision of the student's research, while a USP supervisor takes primary responsibility for academic supervision and assuring compliance with USP requirements.

Scholarships cover tuition fees, a living allowance, and travel to and from the student's country of origin, as well as between the USP and a project's research site for the MSc and PhD candidates.

Throughout the second phase of the PSS, a research grant of up to FJ\$20,000 (currently AU\$13,000) per year has also been provided as part of the scholarship, based on a proposal and budget prepared by each student, and approved by the USP faculty research committee.

The scheme has been implemented under two service contracts: C2007/014 for the first

phase (2008-2014) and C2014/086 for the second phase (hereinafter, Phase 2), which commenced in July 2015 and will run until June 2019, with funding of AU\$2.0m, or about AU\$0.5m per year.

At the inception of the PSS, students were drawn from the Faculty of Agriculture and Food

Technology in Samoa or the Faculty of Islands and Oceans in Suva. However, shortly afterwards (2008/2009), the former was integrated into the Faculty of Business and Economics (FBE) and the latter into the Faculty of Science, Technology and the Environment (FSTE), being the schools with the larger faculties. Responsibility for the management of the PSS was lodged with FSTE, with the Dean of FSTE taking overall responsibility, and with the Associate Deans for Research and Consultancy from FSTE and FBE sharing responsibility for the day-to-day operation of the scheme.

In 2013, towards the end of Phase 1, ACIAR commissioned an external review of the PSS by Prof. Ron Duncan, a distinguished Australian academic who had previously been deeply involved in the establishment of USP's postgraduate programs. The recommendations from Prof. Duncan's review provided a point of departure for the present review and are provided as Annex 1 to this report.

The present review, focusing on Phase 2 of the PSS, was commissioned in October 2018 by ACIAR's Outreach and Capacity Building, specifically by Geoff O'Keefe, Capacity Building Manager. It also takes into account the influence of the support provided by the University of the Sunshine Coast (USC) under a Twinning Scheme, which has been provided under a separate agreement (C2015/138) since 2016, as part of ACIAR's response to the Phase 1 review.

The present review was conducted by David Swete Kelly of RDSM Consulting NZ and

Richard Markham of Agroecology Consulting, formerly ACIAR Regional Project Manager (RPM) for Pacific Crops and then Horticulture, in close collaboration with Robert Edis, RPM for Soils and Land Management and Philippa Kimburi, Project Officer, Capacity Building. Terms of Reference are provided in Annex 2.

The review began in the first week of October 2018 with a desk study of reports and other documents provided by ACIAR and USP. The external reviewers then travelled to Suva, Fiji from 7-10 October and Samoa from 10-13 October, for direct discussions with faculty members, managers and students of USP, and with various other stakeholders. In Fiji, they were accompanied by Robert Edis and Philippa Kimburi, and in Samoa, only by Robert Edis. In Fiji, the review team joined up with Rodd Dyer, ACIAR RPM Agribusiness, who was reviewing options for a John Dillon-style program to build research management capacity

in the Pacific. A schedule of travel and discussions for the in-country consultation is provided in Annex 3. The external reviewers then undertook further consultations with projects researchers involved in the PSS and drafted their report from 15-23 October, then conducted final consultations with ACIAR and revisions from 23-31 October.

The review of the PSS is presented here according to standard monitoring and evaluation criteria i.e. relevance, impact, effectiveness, efficiency, inclusiveness and sustainability, and concludes with an executive summary, including a summary of recommendations.





## 2 Relevance

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Tertiary and professional training of any sort is a not an easy undertaking in the small island states of the Pacific. Remoteness, small populations, differing needs and limited capacity i.e. knowledge, skills and resources, constrain the capacity of the island nations to meet the range of challenges each faces.

Regional networks in all sectors, including agriculture, have therefore been formed to address issues from a regional footing, and to pool scarce capacity. In particular, the formation of the USP and the Pacific Community (SPC – formerly the Secretariat of the Pacific Community and, before that, the South Pacific Commission), have been important steps in meeting regional needs.

Australia recognises the importance of the Pacific to its security, stability and regional development, with the current *Pacific Regional Aid Investment Plan* (DFAT, 2016) and the associated Annual Implementation Plans (AIPs) for the individual nations logically focusing on support for broad economic development, regional institutions and inclusive communities. These AIPs appreciate that various agricultural activities – fisheries, cropping, livestock, forestry and the associated markets, are the primary drivers of economic opportunity in the Pacific. Thus, agriculture is a focal sector for many of Australia's large regional investments, including:

1. Fisheries Development Assistance in the Pacific;
2. the Pacific Agribusiness Research for Development Initiative (PARDI);
3. the Pacific Horticultural and Agricultural Market Access Program (PHAMA); and
4. the Market Development Facility (MDF).

ACIAR's program in the Pacific, with its focus on research for development and the building of regional capacity, roughly aligns with Australia's broader agenda. Nevertheless, ACIAR has no current regional strategy for its Pacific activities, nor country strategies, except for Papua New Guinea, with the description of the agency's priorities varying across, and even within, the relevant documents. ACIAR's Annual Report 2017/2018 (ACIAR, 2018) broadly outlines its intentions and research priorities for the Pacific region,

the focus being on climate change, nutrition and market development. However, this relates to the latter part of Phase 2 of the USP-PSS.

Within the Pacific context, it is clear that a well-crafted postgraduate scholarship scheme would be both a logical contribution and entirely appropriate. In theory, working with the regional university and focusing on agricultural skills from across the region, should help to build a critical mass of qualified professionals who can work to address the agricultural research needs of the Pacific.

Furthermore, the strategic intentions of the USP, as outlined in both its current strategic plan (USP, 2013) and its draft future plan (USP, 2018), focus on improving academic quality and capacity, and hence the human capital of the Pacific region. The USP-PSS is therefore in line with all stakeholder intentions.

Problems are arising, however, because the overall purpose/intent of the USP-PSS has never been explicitly stated or documented. Although the scheme is clearly appropriate and relevant, it is trying to address challenges that are enormous in scale and scope, and that have multifaceted dimensions. For the scheme to have maximum impact and to progress, it therefore needs to have its currently loose strategic intent more clearly specified, as in its current form, it leaves the scheme very open to dissipation.

### Clarity of Strategic Intent

Research and/or development projects are most readily reviewed and assessed against a design document that clearly states their goal, purpose and objectives, in the context of Australian and partner-country priorities – and which ideally includes a monitoring and evaluation framework. Although the USP-PSS was initially set up as an ACIAR research project, HORT/2007/072, whose design presumably included at least some of these elements, this proposal was not available to the reviewers and, in any case, may not be fully applicable to the second phase of the scholarship scheme. Subsequently, the scheme has been operated under service contracts (as noted in the introduction) that

are operational in nature and do not outline a goal nor any performance expectations for the program.

Although some elements of an M&E framework are embedded or implicit in the 'scope of requirement' (or similar) for the service contract(s), these are perhaps inevitably operationally focused documents, rather than strategic ones; this complicates the review process, as the measures against which the work is to be reviewed must first be deduced.

Discussions with major stakeholders (ACIAR, USP, USC, students and ACIAR Team Leaders) reveal a range of perspectives of project intent, including:

- increasing postgraduate opportunities in agriculture in the Pacific;
- reinvigorating enthusiasm for agriculture as a professional career option amongst young people in the Pacific;
- building a capacity for Pacific-based agricultural research and development within the region so that students and professionals can attain higher degrees locally and not need to leave;
- overcoming the challenges that remote, disconnected, small island states of the Pacific face in delivering appropriate agricultural R&D services to their peoples;
- providing professional development options for established agriculturalists to further their professional development;
- significantly improving the supervision of students so that they have a better, more structured learning experience;
- developing the critical mass of research capacity in priority thematic areas of agriculture in the Pacific e.g. marine science, forestry, pest management, etc.;
- increasing the cohort of available and effectively trained partners for ACIAR collaboration in the Pacific;
- building the agricultural research and supervisory capacity of staff at USP campuses in Fiji and Samoa; and
- building academic and operational links between Australian universities and USP.

In fact, all stakeholders interviewed had a different perspective on what the scheme was trying to achieve. Inevitably, these perspectives reflected their own experience and priorities. While many of these aspirations are indisputably valid, there has been no proper contextual analysis, no assessment of the

critical constraints, and no assessment of alternative mechanisms currently available. Because there is little evidence to help sort through the various priorities, the USP-PSS has become disparate, with unclear intentions that are interpreted differently by each stakeholder and each new ACIAR manager. Without a clear intention, and because of the significant turnover in the program oversight and management, the USP-PSS has evolved organically, based on the best intentions of various managers at the time. In essence, the only unifying intention of the program is now *'the provision of various agricultural scholarships in the Pacific'*, with no clear 'why' other than *'it is important'*.

Yet there are many other options for agriculturalists in the Pacific to receive professional development, including:

- ACIAR's John Allwright Fellowships;
- ACIAR's John Dillon Fellowships;
- Australia Awards for both short and long-term studies;
- NZ Aid Scholarships for both short and long-term studies;
- Pacific National Postgraduate Scholarships provided by the governments of Fiji, Solomon Islands, Vanuatu, etc.;
- USP Postgraduate Scholarships; and
- other bilateral partner scholarships e.g. China, Korea, etc.

While some of these are more specific to agriculture, none exclude it as an option. Hence, there needs to be a clearer argument as to how the USP-PSS adds value to these investments or addresses a critical constraint that cannot be managed through existing mechanisms.

This lack of clarity is very evident in the relationship between ACIAR and USP. Most substantial ACIAR investments are based on a partnership model, where both parties co-invest in work that addresses the priorities of the two or more partners. The Terms of Reference for this review (see Annex 1) imply that this is also the case for the USP-PSS, insofar as the reviewers were asked to assess the alignment of the work with the 'institutional priorities' of ACIAR and USP<sup>1</sup>. However, there is little indication in the reporting available to the reviewers that either ACIAR or USP in practice saw the scheme in this light. Indeed, the formal reporting provided by USP e.g. the Annual Report for 2015-2016, the first year of Phase 2, reports achievements against three objectives:

<sup>1</sup> Note the ToRs also ask the reviewers to assess the alignment of the scholarship scheme to ACIAR's 10-year strategy (presumably the current one, 2018-2027). This appears more relevant to the design phase of the review, since the 10-year strategy was only launched towards the end of Phase 2 of the scholarship scheme, and so could not have been taken into account in the design of Phase 2.

1. To improve reporting from USP to ACIAR regarding scholars
2. To improve service delivery and success rates of scholarship students
3. To improve student research and reporting skills

There is also a focus in reporting on completions rates for the students i.e. reducing the rate of dropouts. In normal M&E terms, these would be regarded as indicators of the quality of service, rather than objectives in themselves. Similarly, there is little indication – either in the written reporting or in the discussion with reviewers – that USP was ever on board with, or recognised the need for, an implicit objective of the scheme in order to strengthen its capacity to support postgraduate research and education in agriculture, fisheries and forestry.

Similar uncertainty is evident in the conceptualisation of the Twinning Scheme. There was an implication in the tendering process for the Twinning Scheme that USP and USC shared a common interest with ACIAR in improving postgraduate research and education relating to agriculture, fisheries and forestry in the Pacific islands – which in general would be supported and enabled by ACIAR’s (co-)investment. This implication has, to some extent, been implicitly carried over into its operation. However, the formal reporting from USC and the tone of discussion with both the USP and USC managers related more to meeting ACIAR’s contractual requirements and expectations. The reviewers’ discussions with the academics and researchers, from both USP and USC, suggested that these stakeholders did recognise the value of ACIAR’s scholarship scheme to their broader, shared mission

of improving agricultural education (*sensu lato*) – even if this mission is currently ill-defined. The reviewers believe that the lack of an explicit statement and shared understanding amongst the parties of the purpose of the scholarship scheme and the nature of the partnership involved are an impediment to its effective operation.

**Recommendation 1:** It appears that the need for agricultural research professionalism remains a constraint for the Pacific. However, before any specific intervention is decided, such as a postgraduate scholarship scheme, ACIAR should review the rationale and strategy for its capacity building work in the region. This should comprise the following steps:

1. Reviewing the emerging context for agricultural education in the Pacific and highlighting the critical constraints
2. Identifying the most appropriate mechanism to address these constraints. If this involves future support to postgraduate studies, then defining the purpose of the scheme and the nature of the partnership on which it is based.
3. Deciding who the best implementation partners are
4. Documenting the intent in an activity design that is formally appraised and approved through ACIAR systems

# 3 Impact

In the scope of requirement for Phase 2 of the scholarship scheme, the following background text appears to capture the alignment of the scheme in language similar to that used in the ACIAR Annual Operating Plans for that period:

*... the ACIAR medium-term strategy for the Pacific, while acknowledging individual country-partner needs and R&D priorities, has a strong regional dimension. It is recognised that the Pacific countries have particular research and adoption challenges related to the size of the country, institutional and other capacities, and remoteness from markets. ACIAR's regional program, and the constituent project portfolio, is designed to address these limiting factors, including a strong emphasis on adoption pathways and R&D capacity building. As part of this commitment to R&D capacity building, ACIAR in partnership with USP, established in 2007, the ACIAR-USP Postgraduate Scholarship Scheme. In addition to funding collaborative research and development, this Postgraduate Scholarship Scheme provides the opportunity for partner country scientists associated with these ACIAR-supported projects to obtain postgraduate qualifications.*

*ACIAR and USP will use the scholarship scheme to build new linkages between USP final year students, USP staff and researchers working with ACIAR projects in the region.*

Although the objectives here are implicit, rather than explicit, the reviewers provisionally concluded, in the absence of a formal M&E framework, that evidence for the success or shortcomings of the scheme should be sought in the following areas:

## **Outputs:**

The number of Pacific island researchers gaining various kinds of qualifications, skills and capacities.

## **Outcomes:**

- a. That the individuals who graduated from the scheme are using their enhanced capacity in positive ways – for instance, to become more effective researchers in relevant fields, to advance their careers in research or

research management in the Pacific, or to pass on their learnings to others

- a. That the institutions and employers who sent or released staff for further study have used the enhanced capacity of their staff members in positive ways

## **Impacts:**

- a. First level: that the capacity of partner organisations to conduct agricultural R&D (s.l.) has been increased, as evidenced by more effective participation in ACIAR projects or the initiation of similar research on their own initiative
- a. Second level: that such research is contributing to improved livelihoods, increased or diversified agribusiness activity, etc.

The outputs of the program in the sense defined here, including the number trained in various ways, are discussed below, mainly in Section 5: Efficiency.

The outcomes (again, as defined here) are discernible mainly through the tracer or follow-up studies on individual students. A very useful survey of scholarship scheme graduates was conducted by an ACIAR Graduate Officer, Tara Mackenzie, in 2016, and was available to reviewers. However, this serves more as an evaluation of Phase 1 outcomes and as a baseline for Phase 2. The fate of students graduating from the scheme is now being followed up by USP and reported, with increasing diligence, in their recent annual reports, which were supplied to the reviewers.

Out of the 75 students who received 94 awards under Phase 1 (meaning 20 students received both PG Dip and master's scholarships), approximately 50 are still involved in agricultural research, development and tertiary education in the region. The numbers are only approximate because in several cases, their personal outcome is not yet clear: students who appear to have emigrated indefinitely to Australia, New Zealand, Europe and the United States are not included in this number, though it is conceivable that some may eventually return to the region. However, those who are still

undertaking agriculturally relevant PhD studies outside the region, but who show some indication that they are likely to return, are counted as still 'in the game'. Graduates who have gone on to teach in high schools are not included in this total, even though they may be teaching agriculture and contributing usefully to the pool of future agriculturalists. Several graduates have found work at USP itself; those in purely administrative roles are not counted in the total, while those who are research assistants or teaching assistants are included. Graduates who have gone on to teach at Fiji National University (FNU) and Solomon Islands National University (SINU) are counted because they are regarded as very much contributing to agricultural education in the region, even if they are not currently active researchers.

Two of the five PhD alumni are still very much involved in ACIAR's R&D network: one as a lecturer at USP's Alafua Campus, where he is guiding new generations of undergraduates and research students; the other at FNU, where he teaches undergraduates, and continues to be actively involved as a researcher and trainer in ACIAR projects. The third alumnus has only very recently received his doctorate, but the signs indicate that he will continue to be involved in agricultural R&D in Solomon Islands. The fourth successful alumnus, with a doctoral graduate in agribusiness, has emigrated to the USA. The fifth recipient of a PhD scholarship, who dropped out after a relatively short period, is still in government service in Kiribati and still involved in ACIAR projects.

If the master's scholarships are regarded to be the core of the program, the outcomes can be regarded as reasonably positive. 31 master's degrees have been awarded so far, with three from recent intakes still studying. Of these, only seven have followed what could be considered the 'ideal' of the PSS model – going on to further research and continuing to be active partners in ACIAR research projects. Two are essentially 'lost' to Pacific agriculture, at least for the moment – one having emigrated, the other joined the military; two are still looking for work; and for two others, there is no information available. However, the remainder, about 20, are still in the region and involved in the broader agricultural development and tertiary education system, even if they are not directly working with ACIAR for the moment.

In addition to the desk study above, the reviewers talked to several alumni who were mainly Fijian, but not exclusively so, at an informal dinner arranged as part of the review in Suva and in the course of discussions with partner R&D organisations, especially the Fiji Ministry of Agriculture and FNU.

For instance, at the Fiji Ministry of Agriculture, the reviewers met two graduates of the Scholarship Program who had conducted their MSc thesis research as relatively junior research officers, in conjunction with the ACIAR soil health project in Taveuni in

approximately 2011-2013. Ami Sharma, at that time a chemist in the analytical services laboratory – is now a Principal Research Officer, while Binesh Prasad is now (ag.) Provincial Agricultural Officer, Western Division. A third person involved in the project, Rohit Lal – at that time an extension officer in Taveuni – also studied for an MSc under the scheme and is currently involved in PhD studies overseas. Although none of the three is still an active, front-line field researcher, all have used their qualifications mainly for career advancement into management, so this may be considered, in the view of the reviewers, as a positive impact, since their influence and understanding of the power of applied research continues to make the Fiji Ministry of Agriculture a stronger partner for ACIAR in continuing projects. In the view of at least one of the reviewers, the partnerships established between Fijian and Australian researchers around soil health and soil organic matter – in this case from the Queensland Dept. of Agriculture and Forestry – are particularly significant for the future sustainability of commercial agricultural production in Fiji, especially for the export industries of ginger, taro, etc.

If the definition of R&D partners is extended to agricultural education and extension, then particularly positive impacts were in evidence at FNU. There, the reviewers met with the new Dean,

Paul Iji, who as a new appointee, has not previously been involved with ACIAR or the scheme, and Salesh Kumar who conducted his PhD thesis research in conjunction with ACIAR's PARDI agribusiness project, focusing on post-harvest handling of vegetables. Salesh Kumar is now a senior lecturer at FNU, passing on his skills and enthusiasm to a new generation of agriculture students. He is also involved in two current ACIAR projects and in informal network-building. In general, ACIAR projects and Prof. Steven Underhill of USC in particular have been key through both formal training and informal networking in building the whole area of post-harvest R&D in Fiji, but also in Samoa, Tonga and Vanuatu. In Fiji, Mereia Fong Lomavatu conducted her MSc as a John Allwright Fellow (JAF) at the University of Queensland, in conjunction with an earlier soil health/ginger project and has recently completed her PhD – again as a JAF, but this time with USC, working on post-harvest diseases of mango. Post-harvest R&D contributes immediately and critically to economic development through the high-value fruit and vegetable sectors, so these capacity-building investments can be seen to contribute qualitatively to economic development, even if the impacts are hard to quantify.

Although they will not be reported in such detail here, the reviewers are also aware of similar examples of direct or indirect contributions to economically

significant agricultural R&D from scholars involved in the ACIAR-USP program, including:

- Prawn aquaculture: Shalini Singh conducted her MSc research on prawn diets under the ACIAR-USP program and went on to become a lecturer at FNU where, for a while, she acted as Head of the Department of Fisheries. She is now completing her PhD (not supported by ACIAR) before returning to FNU.
- Aquaculture of pearls and other marine commodities: Pranesh Kishore and Monal Lal were early recipients of MSc scholarships under the ACIAR-USP scheme, both conducting thesis research associated with pearl projects. Both have gone on to do PhDs as JAFs, with Pranesh Kishore continuing to be involved in ACIAR-funded pearl projects led by USC's Prof. Paul Southgate, and Monal Lal involved in an ACIAR regional sea cucumber project and also mentoring students still involved in the USP program. Other related industries in which students have been involved and/or contributed to subsequent industry development include Mabe half pearls in Tonga and Fiji (and associated handicrafts), sea-ranching of Kappaphycus algae for various industrial products, and freshwater aquaculture of tilapia and prawns.
- Plant protection of high-value vegetable crops – brassicas, solanaceous crops (tomato, chilli and capsicum) and cucurbits – across Fiji, Samoa and Tonga, supported by a growing network of researchers and ACIAR-supported projects, loosely centred on the Crop Health department of SPC, and supported by the University of Queensland and other Queensland-based partners.

## ACIAR Research Linkages

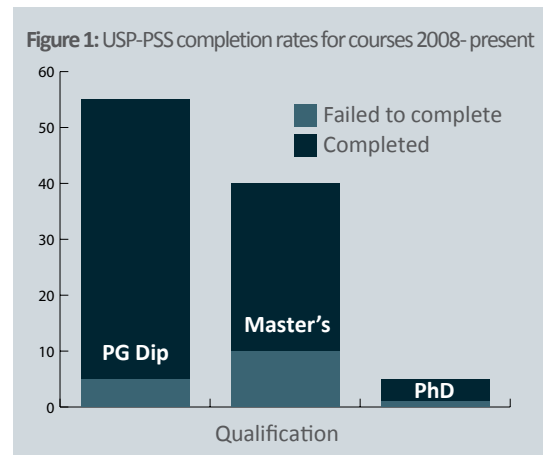
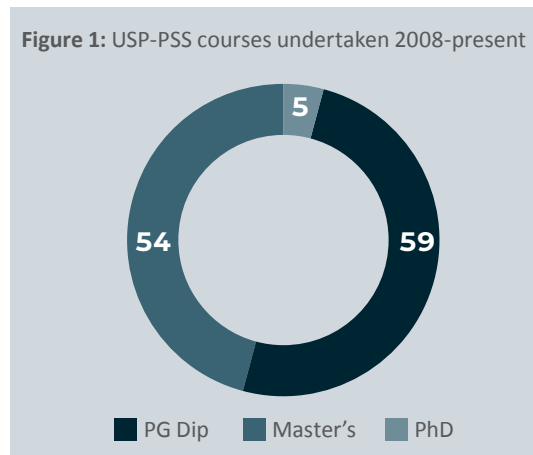
In the opinion of the reviewers, the link to a practical, applied ACIAR-funded project is vital to the impact of the capacity-building investment, in terms of attitudes (to problem-solving research), professionalism and development of public-private sector linkages. Experience has shown that these opportunities are simply not provided when students take on a thesis research topic linked to the area of interest of their USP academic supervisor. The Australian external co-supervisors are simply more likely to have the links to agricultural industries that are likely to deliver economic impacts – especially if the Australians are linked with state departments of primary industry, but even if they are in the university sector. That said, the insistence of the program on linking students with an active ACIAR project has, in some cases, limited the scope of engagement, so the review returns to this issue under Section 6: Inclusiveness, below.

**Recommendation 2:** In order to maintain the positive economic impact of capacity building, ACIAR should seek to preserve the principle of linking student thesis research to ACIAR research projects and project teams in any future agricultural capacity-building investment.

# 4 Effectiveness

During its 10-year life, the scholarship scheme has experimented with various pathways to building R&D capacity – and this is an area where, in the opinion of the reviewers, the interests and strategy of the partners has not always been well aligned. ACIAR’s basic modus operandi is based on the proposition that problem-solving research that pairs expertise in Australia with at least the kernel of local expertise – and certainly the interest and commitment of in-country partners, can foster agricultural innovation, remove constraints to value chain development and support economic development; while still preserving the natural resource base, enhancing resilience, promoting inclusion and equity, etc., with different dimensions being emphasised or downplayed, depending on the project or program concerned.

From this perspective, the focus of the Scholarship Program becomes clearer and it is easier to judge its effectiveness in the context of a review. Research and development partners in the Pacific islands – mainly government ministries and their research and extension arms – have not been strong partners in sustaining the ACIAR model of agricultural innovation, and one perceived factor has been the failure of education systems in the region to provide a supply of skilled and qualified personnel. Seemingly without explicit analysis, ACIAR’s scholarship scheme has sought to address this constraint by strengthening postgraduate training in agriculture (s.l.) at USP, the region’s largest provider of tertiary education.



## Outcomes of the USP-PSS

Since its inception, the USP-PSS has awarded 91 scholarships to awardees who engaged in 118 courses (Figure 1). Of these, 105 courses are now finished, with reasonable completion rates for PG Diploma (93%) and PhD (80%) students, but relatively poor overall completion rates for master’s students (59%) (Figure 2). Even if the completion rates are regarded as poor by Australian standards, they are much higher within the ACIAR-supported program than in USP at large: in 2016, the completion rate for PhDs was only 8% in FBE and 12% in FSTE, while the completion rates for master’s programs were 13% and 17% respectively. Within the USP-PSS, remedial

actions were initiated in Phase 2 to address this issue and these measures have significantly improved the completion rates to 93% for those students who finished their studies since 2015.

The postgraduate diploma was seen as a bridging course to ensure students had the capacity to complete a higher degree. Hence if we look just at the higher degrees, the USP-PSS has delivered 27 master’s and four doctorates since 2008, with 13 still pending. At an overall cost of about AU\$5.25m, this equates to about AU\$120,000 per degree. This compares favourably with the cost of a John Allwright Fellowship, estimated at AU\$150,000-200,000 for a master’s program (ACIAR, 2004), especially when it is recognised that more than 50 postgraduate diploma

scholarships are 'bundled' into this sum – and about 30 students considered this qualification to be a useful end in itself.

## Career Development or Career Establishment

Within this framework, the scholarship scheme has identified two different streams for intervention:

1. Young people entering the work force, usually with an undergraduate science degree, providing an opportunity to specialise in agricultural research as a means to start a career
2. Retraining or upgrading the research skills of personnel already working in partner organisations

Looking at the cohort over the full term of the USP-PSS, 56% of scholars have been less than 30 years old. These younger students have proven easier for USP to manage, since the best i.e. most academic students are easy for the university to identify – they complete their undergraduate studies, and the scholarship scheme provides an easy transition to further studies and/or enhanced employment opportunities. Among those students with a high GPA, it is not necessarily easy to identify those with a genuine interest in, and aptitude for, applied research – but, in a sense, that may be less important to the university in fulfilling its primary, educational mission.

The second stream of more mature entrants is comprised of 39% of scholars who are more than 30 years old. They are equally, or possibly even more important to ACIAR in terms of strengthening the research capacity of its R&D partners, but have often been hard for the university to accommodate. Over its lifetime, the scholarship scheme has experimented with various ways to keep the second pathway open. Initially, this was through active ACIAR participation in the selection panel and partly through insistence on including some form of outline research proposal in the application, which tended to give researchers who already had contact with an ACIAR project at least one strong element in their application. More recently, through the Twinning Scheme, USC has succeeded in introducing a weighting and scoring system into the USP selection process, which gives formal recognition to research experience and a sound proposal. However, in practice, older in-service applicants have often had difficulty meeting USP's threshold GPA requirement and, once they have overcome this barrier, some of them have struggled to re-adjust to academic life, and to clearing successive hurdles of exams and grades.

Discussions with ACIAR's R&D partners have suggested quite a different approach to the challenge of in-service training: Chinese and Korean scholarship schemes e.g. in forestry and fisheries, simply accept

an agreed number of nominated candidates each year and, presumably, it is up to the educational institution hosting the training to provide training at the appropriate level, including any remedial teaching to bring candidates up to the necessary standard. However, it is hard to imagine this kind of arrangement being accommodated in an Australian-funded, merit-based scheme.

## Postgraduate Diplomas – a Means to an End or an End in Itself?

The entry into a research master's via a PG Dip has been recognised throughout the scheme as a possible way of both bringing academically weaker candidates up to the necessary level. It is also a way to build the research capacity of candidates with no track record in research, insofar as the PG Dip includes some experimental design work and a small project which can offer a pathway to designing a more ambitious project suitable for a thesis-based master's. As a bridging course, the PG Dip seems to serve the broader aims of the scholarship scheme. However, a period in which candidates were allowed to enrol only for the PG Dip seemed to result in a significant number of candidates (approximately 30) simply using the scholarship as a means for career advancement, without any serious interest in further research – and this cannot be regarded as an effective way of meeting ACIAR's objectives. The current process, in which the offer of a scholarship makes it clear that a candidate who does not have a sufficiently high GPA to enter directly into a master's program is expected to achieve certain levels in PG Dip courses in order to progress to a master's, is seen as a relatively satisfactory response to this conundrum.

## Scholarship Duration

A related issue considered by the reviewers is the total duration of scholarship support. In his 2013 review of Phase 1, Prof. Duncan was quite clear in recommending that 18 months was too short a duration for a research-based master's, especially in fields like agriculture and aquaculture that may be tied to growing seasons or other biological cycles, and readily disrupted by unfavourable weather. On the other hand, the PSS managers based in USP's Faculty of Science, Technology and the Environment (FSTE), perhaps with little personal experience of agricultural field work, frequently expressed a preference for a one-year master's scholarship – and simply did not implement Prof. Duncan's recommendation for a two-year master's by research.

Current arrangements provide an 18-month scholarship for high-GPA students proceeding directly into the master's program; or two-year scholarships



for candidates needing to start with PG Dip courses – either comprising of six months of coursework for candidates achieving a high-enough GPA to advance to an 18-month master’s program, or one year of PG Dip and one year of master’s study for those who do not ‘make the grade’ in the first semester. This arrangement seems perverse in giving less time for thesis research to those candidates who are less gifted academically.

Scholarship extensions provide a ‘safety valve’ for those candidates whose research was delayed by circumstances beyond their control. However, these seem to have been awarded only grudgingly by the FSTE management, leaving many candidates to cope on their own, with delays caused mainly by administrative obstacles endemic to the USP system. It is probably mainly a tribute to the better pastoral care and orientation provided by the scheme’s graduate officer that more students are now clearing the administrative hurdles in time – and perhaps also that more students seem to be staying on at their own expense to complete the thesis submission and receive their qualification, rather than simply dropping out.

Whatever the contributing factors, the reviewers of Phase 2 are pleased to note a considerable increase in the completion rate for master’s study, compared with the situation reported by Prof. Duncan in his 2013 review. Helping USP to improve the dismal completion rate achieved in Phase 1 was established as an important target for the USC-led Twinning Scheme – though evidently USC did not have direct control, and could only use various kinds of support and influence to improve performance in this area. In the discussions with faculty members and managers at USP, the reviewers gained the impression that USP still does not fully recognise and ‘own’ this problem – perhaps because, as noted above, the completion rates in the ACIAR scheme are already far higher than in the university as whole.

**Recommendation 3:** If ACIAR wishes to continue to support master’s by research as the cornerstone of R&D capacity building, it should press its partners to assure a minimum of 18 months of thesis work as the foundation for an effective program i.e. any preparatory coursework should be in addition to this 18-month period of research.

## The Twinning Scheme

The Twinning Scheme seems to have achieved less than most stakeholders would have hoped. A number of factors appear to have contributed to this disappointing performance including:

- changing management approaches within USC, and especially the limited engagement of the USC advisory group in setting its vision and guiding implementation. This process has left the scheme’s

agenda in the hands of professional university managers/administrators, rather than being driven by researchers and academics with experience of, and a stake in, agricultural R&D in the Pacific; and

- the focus of the scheme on strengthening administrative processes, with little attention to the development of research and education partnerships. The relationship between USP and USC has not blossomed as hoped, and fundamental bottlenecks remain. For instance, a simple memorandum of understanding (MoU) between the organisations that recognises the relationship, commits to shared objectives, gives recognition to faculty members for work conducted in support of the scheme and provides associate status at USP for external co-supervisors, would have helped considerably.

Possibly, ACIAR could have provided stronger oversight of this contract to ensure that some of these basic expectations were met. Indeed, urgent and targeted intervention by ACIAR managers during the remaining period of the scheme could still achieve positive outcomes.

While the Twinning Scheme could have achieved much more than it did, one area of particular benefit, recognised by all parties in their discussions with the reviewers, has been the enhancement of USP systems and processes for admitting and managing students. The policies and processes introduced through the Twinning Scheme have not only helped USP manage the PSS itself, but have also been more widely adopted in the USP system.

## Expanding beyond USP

At the time of establishing the PSS, USP was the only university in the smaller Pacific islands (i.e. outside PNG) offering postgraduate training in agriculture – thus, when ACIAR decided to focus its capacity-building effort at this level, USP was essentially the only possible partner. At the time of the end of Phase 1 review, FNU was in the process of establishing a postgraduate program in forestry, but this initiative was terminated by a change of dean. The national universities in Fiji, Samoa and Solomon Islands have nevertheless continued to evolve in the meantime, to the extent that FNU is now poised to launch several master’s programs, probably in agriculture, forestry and fisheries, as soon as the 2019 academic year. For the purposes of this review, the team visited FNU (specifically the school of agriculture at Koronivia) and the National University of Samoa (NUS) in Apia. The team, along with Prof. Wallace and Prof. Underhill, members of the USC Advisory Committee, and Tami Harriot, USC program manager, also discussed the possibility of widening the scope of ACIAR’s capacity-building effort to encompass FNU and/or NUS and/or SINU.

At FNU, the reviewers were warmly received by the new dean and were impressed by his enthusiasm – though were also concerned as to whether he and his colleagues were realistic about the various upgrades in skills, facilities and processes that might be needed to run a successful postgraduate program. Certainly FNU would require significant support from financial donors and other partners to make this a reality.

In other discussions, USC advocated broadening the agricultural training partnership to include at least FNU and SINU, based on the greater readiness apparent in these institutions to embrace change and recognise the need for capacity building. Also, Prof. Underhill argued compellingly that investing in building capacity at agricultural universities would have a greater “multiplier effect” and thus offer a greater medium-term return on investment than the current strategy, which tends to focus on individual researchers. The 2013 review of alumni experiences by Tara Mackenzie reported, encouragingly, that 88% of students felt they

had “shared the knowledge and experiences gained during their studies” with colleagues after their return. Evidently, this would be more strongly formalised if returnees were in an agricultural teaching environment – as exemplified by Satesh Kumar and Shalini Singh at FNU, Ramona Sulifoa O’Conor at SINU, and Sanjay Anand at USP-Alafua.

Recommendation 4: That if ACIAR is prepared to consider widening its definition of agricultural capacity building in the Pacific, the design for the next phase of investment should consider broadening the model and scope of support, to include, or focus on, building the capacity of the agricultural education system in the Pacific region – for instance, by working with selected departments of FNU and possibly SINU.

# 5 Efficiency

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In assessing the efficiency of the Scholarship Program and the closely linked Twinning Scheme, the review focuses on the return for resources invested. The scholarship scheme is widely described as budgeted at AU\$2.0 million over four years, i.e. AU\$500,000 per year, but in practice, USP has received only AU\$450,000 for each of the four years of Phase 2.

During the latter years of Phase 1, AU\$50,000/year was retained by ACIAR to support the mentoring activities provided by Prof. Robin South and some targeted supplementary training for the students – notably workshops in statistics and experimental design. According to the latest Annual Report for 2017-2018, USP still believes this to be the case, “with ACIAR retaining AU\$50,000 per year to fund a scholarship advisory scheme”. However, under Phase 2, it was the intention of ACIAR that any advisory service be provided by USC under the Twinning Scheme and that the AU\$50,000/year be allocated to support additional forestry students. As a temporary measure, pending a strategy for supporting forestry-related students which USC was asked to develop under the Twinning Scheme, ACIAR retained these funds. At the time of the first student intake under Phase 2, the Twinning Scheme was not yet operational – and so no strategy for offering forestry-related scholarships was available; the first tranche of AU\$50,000 was therefore allocated to USC specifically for the purpose of developing a forestry training strategy, with Prof. Helen Wallace, an experienced project leader of several ACIAR Forestry projects, being tasked with exploring the options for forestry-related training around the region. It appears that the balance of these funds (AU\$150,000) remain unspent in the ACIAR budget and no forestry scholars have benefitted from these resources.

**Recommendation 5:** If the funds intended to support forestry scholarships can still be identified, it is recommended that these funds be allocated for this purpose – or at least to support some form of forestry-related capacity building. For instance, this could be through support for the start-up of PG training in forestry which FNU is expected to launch during the coming academic year.

Another factor affecting the resources available to USP is the exchange rate between Australian dollars and Fijian dollars – the currency in which USP conducts its budget planning and reporting, as well as, to a lesser extent, the exchange rate with the Samoan Tala for the students studying at USP’s Alafua Campus. In local currency, the amounts received by USP have fluctuated somewhat (FJ\$681,921 in 2016, FJ\$709,891 in 2017 and FJ\$695,733 in 2018), but this does not appear to have been a significant factor affecting budget planning and execution.

More important internal factors affecting the resources available for scholarships and the number of students supported are the management costs of the scheme, and the changing rates for fees and allowances. Under Phase 1, the guidelines for the operation of the scholarship scheme allocated up to FJ\$100,000 per year for USP’s management of the scheme, mainly providing for employment of two graduate officers (GOs) – one for FSTE and one for FBE, plus a range of student support activities, including induction courses (in Suva and Apia), student support visits, advertising of the scholarships in the national press of member countries, and various visits and events to raise awareness of the scholarship opportunities among final-year undergraduates.

Under Phase 2, the guidelines do not appear to include an explicit budget for USP’s management of the scheme but, in practice, the previous provisions appear to have been continued. With respect to the GOs, this means that, although included each year in the budget plan, the second GO – employed to look after FBE students, especially those studying at Alafua – has never been recruited; reported management cost have accordingly run at about FJ\$50,000/year, with the largest single item being the GO’s salary and benefits at around FJ\$30,000. USP currently propose that an experienced faculty member of the School of Agriculture and Food Technology (SAFT) takes on the duties of ‘pastoral care’ of the Alafua-based students, while the Suva-based GO takes care of all other administrative support for the students at both campuses. Such an arrangement would appear to offer a cost-effective solution.

Even when USP management costs are running at only FJ\$50,000, the reviewers gained the impression that management resources, such as the GO's time, plus committees, orientation visits, etc. could serve the needs of a larger number of students. Thus, for greater efficiency, if the scholarship scheme is to be continued, ACIAR may wish to consider in future increasing the resources available for scholarships managed through the scheme.

Efficiency in terms of the number of students supported by the scheme has changed considerably over the years, affected in part by the mix of PG Dip, MSc/MA and PhD scholarships awarded, and mainly by the level and structure of fees and allowances covered. Both of these factors also relate to the quality of the capacity-building experience and to the impact of the scheme – so these should not be considered only in a narrow sense of financial efficiency.

In 2007-2008, at the inception of the Scholarship Program, AU\$250,000 per year was considered sufficient to support an intake of eight students per year, which were mainly MSc with some PG Dip, and noting that the research costs of each student's MSc thesis project at that time were being borne by the ACIAR project hosting the student. When the budget for the Scholarship Program was doubled to AU\$500,000/year in 2009-2010, this was considered sufficient to support an intake of up to 15 students per year. In practice, the number of scholarships awarded varied widely during Phase 1 of the program, with the lowest number being nine in 2010 (three PG Dip and six master's) and the highest being 21 in 2012 (12 PG Dip, eight master's and one PhD). The large intake in 2012 probably contributed to over-taxing USP's existing systems or highlighted the university's inability to take proper care of postgraduate students. A mid-term review undertaken by ACIAR in that year noted administrative problems detrimental to the progress of the students, and led to resources being set aside within the program for better internal administration – specifically the recruiting of the GO.

The terms and conditions of the ACIAR scholarships have, in general, been set intentionally and maintained at the same level as Graduate Assistantship (GA) awards offered internally by the Research Office of USP, seemingly at the insistence of USP faculty and managers, and presumably so as not to 'unfairly' attract the best candidates to the ACIAR scheme. However, the ACIAR scholarship scheme differs most significantly in offering a more generous research grant of up to FJ\$20,000 for a master's study and up to FJ\$20,000 per year for a PhD program – based in both cases on a research proposal and budget submitted to the respective faculty research committee. From 2010 onwards, this has been offered partly to ensure that hosting students did not provide an unwelcome 'burden' on ACIAR projects, and partly to ensure

that students could undertake substantive research projects in fields such as aquaculture and horticulture, which require relatively expensive field work. Internal USP scholarships offer research grants of FJ\$5,000 (FSTE) or FJ\$3,500 (FBE). The more generous grants offered by the ACIAR scheme appear to be appreciated by both students, and internal and external supervisors, and in some cases have supported scientifically significant work – in other words, they appear to offer value for money.

Living allowances have been raised twice during the lifespan of the scheme: once during Phase 1 (January 2013) and once during Phase 2 (January 2018), the main driver being the falling number of applicants of sufficient quality and thus the perceived need to remain competitive with other opportunities open to new graduates. The rise in allowances in 2013 seems to have been successful with a rise in some candidate numbers. However, when a further review was undertaken in 2017, with a view to raising the allowance to FJ\$21,450/year for students starting in January 2018, the lack of response was disappointing: the number of applicants continued to fall, from 41 in 2015 and 39 in 2016, to only 17 in 2017. It may be that information about the expected improvement in allowances simply had not spread far enough by the time of the call for applications in July/August 2017.

The reviewers' discussions with national public service personnel in Fiji and Samoa indicated that the employers' policy of whether or not to continue to pay salaries and/or keep a position open for staff undertaking postgraduate training, was a significant factor in determining whether staff were keen to undertake postgraduate training. For researchers in government service, this policy differs among the partner countries – and, for Fiji at least, has changed during the period of the PSS. In Samoa at least, the reviewers were advised that allowances in excess of FJ\$20,000 would be a plausible alternative to a public service salary during the period of study. In Tara Mackenzie's survey of student experiences under Phase 1 of the PSS, almost one-third of respondents reported having experienced some form of financial hardship associated with their period of postgraduate study. This review did not formally assess student perceptions, but in the informal discussions with current students and recent alumni, most students appeared to be satisfied with the current, improved provisions.

Another element in the cost of the scholarship package offered to students is the level of fees charged by USP. These currently range from FJ\$6,683 to FJ\$10,306 per student per semester, depending on the campus (Suva or Apia) and course of study (PG Dip or master's). Most importantly, from a value-for-money perspective, these are charged at the 'third-country' rate, reflecting the source of the funding, rather than the origin of the student. Although favourable to USP from a business

perspective, this seems contrary to ACIAR's partnership model and perhaps, as noted by Prof. Duncan in his 2013 review, inconsistent with the normal fee structure of the university, given that all candidates under the ACIAR scheme are from countries that are members of USP and therefore should be entitled to member-country rates i.e. subsidised by their own governments' contributions to USP. As an indication of the level of saving to be expected, it may be noted that in 2017, the tuition fee for each 400-level course taken at the Laucala Campus in Suva was FJ\$3,660 at the third-country rate, but only FJ\$1,225 at the regional i.e. member-country rate.

As a result of these practices and rising costs, a challenge for the program has been the gradual increase in the cost of scholarships and the reduction in the number offered each year. In 2017, only three scholarships were awarded and in 2018, only six. To increase efficiency and assure value for money, efforts are needed to reduce the operating costs or increase funding in order to raise the number of scholars to the original target of around 10 per year. Welcome discussions with USP during the review have opened two possible avenues for cost savings:

**Recommendation 6:** If the scholarship scheme is to be continued in a similar form, ACIAR should negotiate with USP for a member-country level of fees to provide better value for money and to emphasise the nature of the Scholarship Program as a partnership of mutual benefit.

**Recommendation 7:** In addition, ACIAR should work with USP to progress the joint funding of research grants. This would mean that USP would contribute up to FJ\$5,000 per student, while ACIAR funds would meet the balance (up to FJ\$15,000).

A final element of efficiency that needs to be considered by the review is whether the Twinning Scheme provides value for money as a means to support the educational experience provided to students by USP. Under Phase 1, ACIAR tackled the administrative weaknesses identified in the midterm review by:

1. inviting USP to set aside some of the funds for management of the scheme and especially the recruiting of two full-time graduate officers, as well as a strengthened induction program for the students; and
2. retaining AU\$50,000/year to support pastoral care provided to the students, mainly at the Alafua Campus, by a retired senior academic, Prof. Robin South, as well as some specialist courses (scientific writing, experimental design and statistics), provided by Australian specialists on a fly-in/fly-out basis, in collaboration with USP faculty.

For Phase 2, a more ambitious and comprehensive supporting program was established through the

USP-USC Twinning Scheme, at a cost of AU\$150,000/year. Even though USP Faculty – notably Sushil Kumar, Associate Dean for Research, FSTE; and Gurmeet Singh, his counterpart at FBE – were involved in the design of the program, and in the two-stage selection process based on an expression of interest which selected USC to run the scheme, it was clear to the reviewers that USP managers do not consider the scheme particularly useful or cost effective.

The reviewers noted the strengthening of selection processes and financial planning/reporting tools developed with the support of USC, mainly through the individual training of the GO, Viliamu Powell, at USC – and indeed the USP managers recognised the value of these improved processes. The students also seem to have appreciated the technical seminars provided by visiting ACIAR project researchers, mainly from USC (Steven Underhill, Helen Wallace and Sarah Burkhart), but also from Southern Cross (Kevin Glencross), though only Steven Underhill had offered a seminar at SAFT-Alafua, as well as in Suva. However, more recently, only non-technical seminars: leadership and influence, promoting women's leadership in agriculture, have been offered by the USC Twinning Scheme manager, Tami Harriot.

There was no evidence that more imaginative ideas e.g. for faculty exchanges and adjunct positions, that had been proposed at the time of designing the Twinning Scheme had been tried in practice. In discussion with the review team, Tami Harriot suggested that it had been impossible to implement some of the more ambitious and creative ideas due to the reluctance of USP to sign an MoU which would have facilitated them. Certainly, the reviewers gained the impression that any positive energy associated with the establishment of the Twinning Scheme and its possibilities had for the most part been exhausted.

After the Suva and Apia visits, the reviewers also discussed the strengths and weaknesses of the scholarship and Twinning Schemes (by Skype) with Helen Wallace and Steven Underhill of USC, who took responsibility for forestry, and horticulture and agribusiness respectively. Along with Paul Southgate, who took responsibility for aquaculture, they were originally nominated as members of an advisory panel for the Twinning Scheme. Later biannual reports from USC also mention Jen Carter, responsible for geography; Bill Carter for resource management; and Nick Paul for aquaculture. The reviewers did not gain the impression that this panel was extensively used as a source of new ideas and technical support for the Twinning Scheme.

In the course of these discussions, it was suggested that more active engagement and intervention by

ACIAR would be helpful, to breathe new life into the Twinning Scheme and especially to encourage USP to take more seriously the need for an MoU and the implementation of some more ambitious measures. This in turn raised the more general question of ACIAR governance of the linked scholarship and Twinning Schemes.

For most of Phase 1, ACIAR's participation in the day-to-day running of the scholarship scheme was more 'activist' and the responsibility clearly lay with the Pacific Crops Program whose RPM was based in Suva, with input from the RPMs for Fisheries and Forestry when intervention was needed for those disciplines – for instance, for the purposes of student/project matching. As USP's internal management of the scheme was strengthened under Phase 2, intervention by ACIAR became less frequently necessary and, with the merging of ACIAR's Horticulture and Pacific Crops programs, responsibility for oversight of the scholarship and Twinning Schemes passed to the General Manager Country Programs, who in turn delegated various RPMs to represent ACIAR as necessary. This arrangement seems to have worked adequately for the selection of candidates, where the

USP selection process had been strengthened through the Twinning Scheme. However, for processes which needed greater engagement from the ACIAR side, such as the key step of matching of students to ACIAR projects, the lack of consistent commitment seems to have been problematic.

**Recommendation 8:** That ACIAR's Contract Manager considers delegating the Pacific Islands Regional Manager to represent ACIAR on the selection and management committees of the PSS and, in general, to liaise with the managers of the PSS and Twinning Scheme. Although the Regional Manager may need to consult with and receive support from ACIAR's Capacity Building team and relevant RPMs, especially when seeking to engage ACIAR projects to host students and project leaders to serve as external co-supervisors, he/she may be better placed than any individual RPM to know what projects are active and at an appropriate stage of implementation in each country, and what research topics are of high priority for each partner country.

## 6 Inclusiveness

In the scope of requirement for the scholarship scheme, it is specified that: “candidates must normally be resident in one of the ACIAR partner countries in the Pacific, namely Fiji, Kiribati, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu”. Then, under the Assessment of Applications section, it is further specified that: “attention will also be given to appropriate balance of gender, academic discipline and geographical origin among the partner countries”, without explaining further what might be considered ‘appropriate’.

The minutes of the applications’ committee meetings and annual reports suggest that USP’s understanding of ACIAR’s expectations in this regard may have varied somewhat from year to year – and ACIAR’s own expectations may indeed have varied. Given the relative strength of Fiji’s education system, this country consistently provided the greatest number of qualified candidates – typically more than all other countries combined. So, in practice, a quota system or some form of affirmative action was needed to assure that other countries were adequately represented.

However, it is not immediately obvious what a realistic target might be.

The ACIAR annual operating plan each year provides a table of population and GDP for each partner country as per the example, below for 2015-2016, the first year of Phase 2, which could be considered a general indicator of potential need. The AOP also provides a statement of ACIAR’s R&D planned investment, as an alternative measure of the demand for qualified persons to work in collaboration with ACIAR projects (see table below). Neither measure corresponds closely with the number of scholarships actually awarded. On the other hand, the presence of ACIAR projects in a country may help to boost demand for in-service training from candidates already employed by partner countries as in the case of aquaculture projects in Solomon Islands – for instance, which prompted several Solomon Islanders to apply for scholarships in this area.

	Population (million)*	GDP/Capita (US\$)*	ACIAR’s 2015-2016 R&D Investment (AU\$)*	Scholarships Awarded (Ph. 2)
Fiji	0.9	4,375	1.83 (40%)	8 (50%)
Solomon Islands	0.6	1,954	1.01 (22%)	3 (19%)
Vanuatu	0.3	3,277	0.58 (13%)	1 (6%)
Samoa	0.2	4,212	0.48 (10%)	2 (12.5%)
Tonga	0.1	4,427	0.55 (12%)	2 (12.5%)
Kiribati	0.1	1,650	0.05 (01%)	0
Tuvalu	0.01	3,880	0.08 (02%)	0
Total			4.58	16

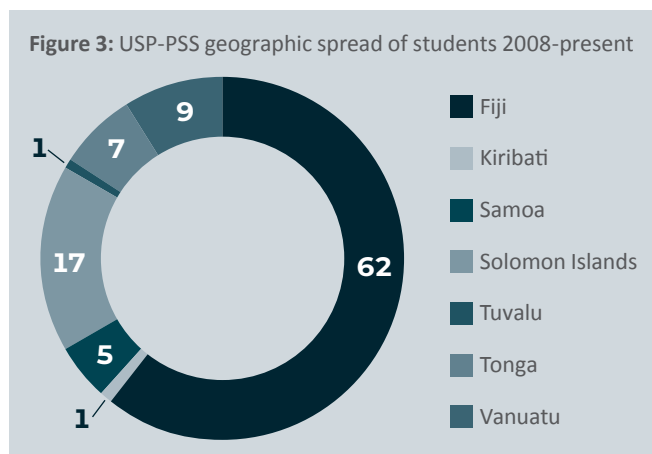
\*From 2015/2016 Annual Operating Plan

One feature of the program has been the predominance of Fijian scholars (62%). To a large extent, this reflects the supply of suitably qualified students and the demand from Fijian applicants. However, efforts have been made to expand the engagement of other Pacific Islanders through various interventions in the selection process, especially a weighted scoring system introduced through the Twinning Scheme. This has resulted in greater inclusiveness during the second phase, with Fiji students dropping to 52% of scholars enrolled since 2015, with stronger representation from Tonga (13%) and Samoa (8%) (Figure 3).

In recent years, the Australian official development assistance program has placed great emphasis on empowerment of women, though this does not seem to have been translated into specific targets for awards under the PSS. Under Phase 2, numbers are so small that percentages are not very meaningful, with the number of awards to men and women fluctuating considerably from year to year. For the 2016 intake, seven scholarships were awarded: five to women, two to men; for the 2017 intake, only three scholarships were awarded, all to women; and for 2018, six were awarded: two to women, four to men. This provides totals of 10 women and six men for Phase 2 so far.

It is less obvious what an 'appropriate' mix of disciplines might be in principle and how this might be achieved in practice. At the inception of the scheme in 2008, applicants were fairly evenly divided between the School of Islands and Oceans, and the School of Agriculture and Food Technology (though with stronger research proposals from the former), so initial awards tended to be divided between aquaculture and agriculture. Subsequently, Marine Studies became part of FSTE and agriculture became part of FBE – so for most of Phase 1, the attempt to allocate scholarships equally between the two faculties resulted in a similar outcome. However, towards the end of Phase 1 and under Phase 2, the attempt to attract candidates to under-represented but important disciplines, such as agribusiness, food processing and, above all, forestry, became an overriding concern.

One strategy which ACIAR and the selection committee tried to manage was the supply side of the scheme, by offering scholarships linked to a selected, limited range of projects – for example, three in aquaculture or marine studies, two in horticulture, two in agribusiness and one related to forestry. This system no longer worked as ACIAR governance of the PSS became less engaged and was replaced by a points-based weighting system, introduced through the Twinning Scheme and by ringfencing two awards for forestry-related studies. However, this seems not to have worked as intended, because these last two awards were taken out of the USP allocation rather than provided through an additional grant. In any case, the perception now



is widespread that the students' choice of projects is severely limited by the lack of ACIAR projects in key disciplines and countries. It is the reviewers' impression that this is mainly a false perception, resulting from lack of information flow within ACIAR about the projects active in the region and lack of advocacy from ACIAR managers towards their project researchers, to encourage them to host and co-supervise students. Across its lifespan, the USP-PSS has depended on around a dozen scientists who are committed to postgraduate education. Efforts are now needed to broaden the base of supervisors, to share the load and make sure that a wider range of projects reflecting the priorities of partners in the region, are available to host students.

**Recommendation 9:** If the postgraduate scholarship scheme is to be continued in any similar form, the principle of linking student thesis research with ACIAR research should be preserved. This is crucial to assuring ACIAR's focus on applied, problem-solving research, and to the secondary objective of building networks among Australian and Pacific island researchers.

However, an effort should be made, with appropriate input from ACIAR, to ensure that an appropriate range of active projects be available to host student thesis research. Operational options that might be considered to broaden the scope of projects and external co-supervision could include:

1. any ACIAR collaborative research partnership that is relevant to the area of study proposed;
2. past ACIAR engagements where an Australian scientist is willing to provide supervision; and
3. other non-ACIAR Australian projects e.g. PHAMA and MDF, where an international researcher is willing to provide co-sponsorship.



# 7 Sustainability

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In the absence of a clear statement of ACIAR's goal and strategy for R&D capacity building in the Pacific, it is hard for the review to evaluate the sustainability of this investment. Most importantly, does this necessarily relate to the provision of thesis-based postgraduate degrees, or should this consider the strengthening of R&D capacities of partners more generally?

In the case of the former, some pointers have emerged during the course of the PSS that suggest that a number of other donors and, more importantly, partner governments themselves, are coming forward to offer more postgraduate scholarships. These are not necessarily targeted towards problem-solving applied research in agriculture, which ACIAR believes to be particularly important; governments typically seem to offer a wider range of scholarships, though it is not clear to the reviewers whether this is driven by perceived national needs or by the demands of students, while other international donors are targeting other subject areas – especially climate change.

From an ACIAR perspective, it would be ideal if the capacity-building effort was sustained by partner governments offering more scholarships earmarked for agriculture. ACIAR might be able to influence this through direct negotiation or by indirect strategies, such as offering research grants to support thesis-related student research, in association with an ACIAR project, to complement partner government scholarships that would cover fees and allowances.

Such facilities could also be offered to USP and perhaps FNU and, in due course, SINU i.e. ACIAR would provide grants to support student thesis research and links to ACIAR projects, if a university scholarship was available to cover a student's fees and allowances.


Another strategy to evolve towards reduced dependence on ACIAR grants might be for ACIAR to focus on strengthening agricultural education at selected universities and agricultural colleges – still mainly through postgraduate degrees, but making the most of the 'multiplier effect' available through engagement in formal tertiary education.

Given the difficulty of guiding 'supply' through a central scholarship scheme, the reviewers believe that the supply of researchers in specific disciplines might be better stimulated by offering scholarships through, or in association with, ACIAR projects. This strategy would also assure that the project researchers are committed to the inclusion and education of students, from the design phase of their respective projects. If projects are well aligned with national needs through country and partner consultation, then this mechanism will provide, in a more targeted way, the mix of disciplines required e.g. for wood processing, marine resource management, animal genetics, plant protection, etc.

In sum, while the reviewers recognise the value of a focused scholarship scheme that, for instance, builds the capacity of key agricultural education facilities such as USP-SAFT in Apia or the FNU school of agriculture in Koronivia, they believe that some kind of 'mixed model' which offers a more flexible range of opportunities, responsive to the needs of partners, may offer better value for money and more readily evolve towards sustainability.

**Recommendation 10:** In assessing its contribution to the further and future agricultural R&D capacity-building needs of its Pacific island partners, ACIAR should consider a wider range of options for supporting thesis-based postgraduate research. Options might include:

1. including full student scholarships (fees, allowances and research costs) in the design of ACIAR projects; and
2. providing scholarships specifically to support student research projects in association with ACIAR projects, with fees and student living allowances covered by other partners such as Pacific island governments, the host university (USP, FNU or SINU), other donors, or the students themselves.



# 8 Executive Summary and Recommendations

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The ACIAR-USP Postgraduate Scholarship Scheme is a capacity-building partnership between the Australian Centre for International Agricultural Research and the University of the South Pacific.

The USP-PSS provides scholarships in agriculture – broadly defined to include the disciplines of horticulture, forestry, fisheries (including aquaculture), agricultural economics and agribusiness – at either of the USP campuses: the Laucala Campus in Suva, Fiji, or the Alafua Campus in Apia, Samoa.

Scholarships cover postgraduate diplomas and master's, as well as PhDs for part of the period of the PSS. Since its inception in 2008, the program has supported 91 students from Fiji, Kiribati, Samoa, the Solomon Islands, Tonga, Tuvalu and Vanuatu, including 37 students during Phase 2. Thesis research is undertaken in association with an ACIAR collaborative research project currently active in the Pacific. The ACIAR Project Leader, or another senior scientist associated with the project, provides external co-supervision of the student's research, while a USP supervisor takes primary responsibility for academic supervision and assuring compliance with USP requirements.

Scholarships cover tuition fees, a living allowance, and travel to and from the student's country of origin, as well as between the USP and a project's research site. Throughout the second phase of the PSS, a research grant of up to FJ\$20,000 per year has also been provided as part of the scholarship.

The scheme has been implemented under two service contracts: C2007/014 for the first phase (2008-2014) and C2014/086 for the second phase (Phase 2), which commenced in July 2015 and will run until June 2019, with funding of AU\$2.0m, or about AU\$0.5m per year. Responsibility for the management of the PSS resides with the Dean, Faculty of Sciences, Technology and the Environment, with the Associate Deans for Research and Consultancy from FSTE and the Faculty of Business and Economics sharing responsibility for the day-to-day operation of the scheme.

In 2013, ACIAR commissioned an external review of Phase 1 of the PSS and the recommendations from this review provide

a point of departure for the present review. The present review, focusing on Phase 2 of the PSS, was commissioned in October 2018 by ACIAR's Outreach and Capacity

Building by Geoff O'Keefe, Manager, Capacity Building. It also takes into account the influence of a Twinning Scheme operated by the University of the Sunshine Coast under a separate agreement (C2015/138) since 2016.

The present review was conducted by David Swete Kelly of RDSM Consulting NZ and Richard Markham of Agroecology Consulting, in close collaboration with Robert Edis, RPM for Soils and Land Management, and Philippa Kimburi, Project Officer, Capacity Building.

The review began with a desk study of reports and other documents provided by ACIAR and USP, followed by site visits to USP campuses in Fiji and Samoa from 7-13 October 2018 for discussion with USP and other stakeholders. The reviewers then undertook further consultations with projects researchers involved in the PSS and ACIAR managers, submitting their draft report to ACIAR on 31 October.

Based on the discussions held and information gathered, the review recommends as follows:

**Recommendation 1:** It appears that the need for agricultural research professionalism remains a constraint for the Pacific. However, before any specific intervention is decided, such as a postgraduate scholarship scheme, ACIAR should review the rationale and strategy for its capacity building work in the region. This should comprise the following steps:

1. Reviewing the emerging context for agricultural education in the Pacific and highlighting the critical constraints
2. Identifying the most appropriate mechanism to address these constraints. If this involves future support to postgraduate studies, then defining the purpose of the scheme and the nature of the partnership on which it is based.
3. Deciding who the best implementation partners are

4. Documenting the intent in an activity design that is formally appraised and approved through ACIAR systems

**Recommendation 2:** In order to maintain the positive economic impact of capacity building, ACIAR should seek to preserve the principle of linking student thesis research to ACIAR research projects and project teams in any future agricultural capacity-building investment.

**Recommendation 3:** If ACIAR wishes to continue to support master's by research as the cornerstone of R&D capacity building, it should press its partners to assure a minimum of 18 months of thesis work as the foundation for an effective program i.e. any preparatory coursework should be *in addition* to this 18-month period of research.

**Recommendation 4:** That if ACIAR is prepared to consider widening its definition of agricultural capacity building in the Pacific, the design for the next phase of investment should consider broadening the model and scope of support, to include, or focus on, building the capacity of the agricultural education system in the Pacific region – for instance, by working with selected departments of FNU and SINU.

**Recommendation 5:** If the funds intended to support forestry scholarships can still be identified, it is recommended that these funds be allocated for this purpose – or at least to support some form of forestry-related capacity building. For instance, this could be through support for the start-up of PG training in forestry which FNU is expected to launch during the coming academic year.

**Recommendation 6:** If the scholarship scheme is to be continued in a similar form, ACIAR should negotiate with USP for a member-country level of fees to provide better value for money and to emphasise the nature of the Scholarship Program as a partnership of mutual benefit.

**Recommendation 7:** In addition, ACIAR should work with USP to progress the joint funding of research grants. This would mean that USP would contribute up to FJ\$5,000 per student, while ACIAR funds would meet the balance (up to FJ\$15,000).

**Recommendation 8:** That ACIAR's Contract Manager considers delegating the Pacific Islands Regional Manager to represent ACIAR on the selection and management committees of the PSS and, in general, to liaise with the managers of the PSS and Twinning Scheme. Although the Regional Manager may need to consult with and receive support from ACIAR's Capacity Building team and relevant RPMs, especially when seeking to engage ACIAR projects to host students and project leaders to serve as external co-supervisors, he/she may be better placed than any individual RPM to know what projects are active and at an appropriate stage of implementation in each country, and what


research topics are of high priority for each partner country.

**Recommendation 9:** If the postgraduate scholarship scheme is to be continued in any similar form, the principle of linking student thesis research with ACIAR research should be preserved. However, an effort should be made, with appropriate input from ACIAR, to ensure that a full range of active projects be available to host student thesis research and the options should be broadened to include:

1. any ACIAR collaborative research partnership that is relevant to the area of study proposed;
2. past ACIAR engagements where an Australian scientist is willing to provide supervision; and
3. other non-ACIAR Australian projects e.g. PHAMA and MDF, where an international researcher is willing to provide co-sponsorship.

**Recommendation 10:** In assessing its contribution to the further and future agricultural R&D capacity-building needs of its Pacific island partners, ACIAR should consider a wider range of options for supporting thesis-based postgraduate research. Options might include:

1. including full student scholarships (fees, allowances and research costs) in the design of ACIAR projects; and
2. providing scholarships specifically to support student research projects in association with ACIAR projects, with fees and student living allowances covered by other partners such as Pacific island governments, the host university (USP, FNU or SINU), other donors, or the students themselves.



## Annex 1: Summary of Recommendations of Phase 1 Review. (From report of Prof. Ron Duncan, 2013)

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It is the reviewer's opinion that there is a need to improve R&D capacity in the Pacific, that the ACIAR-USP Scholarship Program is making a valuable contribution in various ways to such capacity building in the Pacific and that it should be continued. However, the program could have improved outcomes, particularly in the completion rate of master's degrees, if modified in various ways:

**Selection of awardees:** It appears that, for various reasons, too many applicants not capable of undertaking research are being selected for master's scholarships. As reflected in the responses to the questionnaire from co-supervisors, this is leading to heavy demands on their time, especially because of the often-poor quality of the USP supervisors. The commitment of an identified amount of funding for the program means that the USP will want to commit all of the funding made available to scholarships and therefore, there will be a tendency for some applicants who do not have the capacity for research to be selected. ACIAR most likely has to continue committing a fixed amount to the program. Therefore, while USP will wish to apply the same conditions for entry to the Scholarship Program as to other postgraduate applicants, ACIAR should retain the last say in the selection process. It could assist in its selections by requesting additional information on the applicants' abilities from previous lecturers or supervisors.

**Quality of research proposals:** The quality of research proposals could be improved by improving the interaction between student, supervisor, and co-supervisor. The intervention of Dr Robin South at Alafua Campus helps considerably in this process by making sure that the necessary interaction takes place. Implementation of similar intervention appears desirable at the Laucala Campus. However, because the wider range of disciplines likely to be involved at the Laucala Campus, a somewhat different mechanism to that provided by Dr Robin South will be needed.

**An Advisory Scheme:** In an interim report on the ACIAR-USP Scholarship Program, Dr Robin South recommended the adoption of an Academic and Research Support Advisory Scheme that would enable experienced

researchers to travel to Fiji and Samoa to provide advice to Scholars on their research proposals and the implementation of their research. Essentially, this would provide an additional advisor to the USP supervisor and the co-supervisor. Dr South has been providing this form of assistance at Alafua Campus.

It is recommended that an Advisory Scheme along these lines should be implemented. As the Scholarship Program covers several disciplines – and more should be encouraged, a single advisor cannot provide the necessary advice on both campuses. Therefore, at suitable times during the year, possibly two to three times per year, experienced advisors should be paid to travel to Samoa and Fiji to discuss students' research proposals, research design and research progress. If, as recommended, candidate selection should attempt to raise the research capacity of scholarship holders, the funding of scholars is likely to decline, making funds available for the Advisory Scheme.

**Awarding PhD scholarships:** As stated earlier, the awarding of PhD scholarships should be a rare event, largely because of the lack of supervisory capacity and resources for such study, especially on the Alafua Campus. Moreover, PhD study lasts for three years, likely more, and there would likely be a misfit between the period of PhD study and ACIAR projects, leading to difficulties with supervision. It is the reviewer's opinion that, at this stage, PhD scholarships should not be awarded and that John Allwright Fellowships should be the vehicle for ACIAR to use to develop high-level research capacity. Some commentators argued that postgraduate study in the Pacific would lead to more researchers staying in the Pacific. However, highly qualified researchers are very mobile and whether they receive a PhD at USP or at an Australian university would likely make little difference to whether or not they remain in the Pacific.

**Scholarship conditions:** It is recommended that scholarships for a master's degree be extended to two years. In the light of experience to date, 18 months for a master's applied research degree is too short. Furthermore, it is desirable that students

be required to undertake additional coursework such as in biometrics. It is unlikely that USP would agree to change the conditions for the postgraduate diploma to incorporate additional or different coursework. Therefore, it would be more acceptable to include the additional coursework in the requirements for the ACIAR USP master's scholarship program.

It is a condition that ACIAR-USP scholarship holders provide eight hours of work to the USP department to which they are attached. Given the tight timeline for the scholarships, it is recommended that this condition be omitted.

**Recognition for co-supervisors:** Co-supervisors complained of the fact that neither they nor their universities receive any budgetary credit for their co-supervision activities. They do receive university credit for the ACIAR funds that they raise by being selected for the project, although the ACIAR projects are not valued as highly for this purpose as other research funds. This problem was noted in the recent ACIAR review and it is hoped that a satisfactory solution can be found so that

Australian university staff will not be discouraged from undertaking such co-supervisory activities.

Co-supervisors would also be helped to give their assistance to the ACIAR-USP scholars if they receive regular and detailed information about the progress of the students they are supervising. All supervisors are required to make regular reports on the progress of their students. The GA assisting the Scholarship Program should make sure that the co-supervisors receive these reports as well as summaries of the progress reports by students to the Scholarship Committee and the Scholarship Committee's responses.



## Annex 2: Terms of Reference

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### Terms of Reference: USP Scholarship Program – Review Consultant

#### Background

As Australia's specialist international agricultural research for development agency, ACIAR builds the capacity of individuals and institutions in developing countries to expand, administer and undertake agricultural research..

We have a legislative responsibility to deliver training and capacity building that supports research for development. Capacity building is a key pathway to improving agricultural research for development and for disseminating research outputs to help meet the long-term development gains of our partner countries.

ACIAR brings a unique approach to capacity building in development, through our focus on agricultural development and the development of long-term partnerships with institutions and individuals. ACIAR's capacity building has delivered, and will continue to deliver, value for money and strong outcomes for Australia and for partner countries in the Indo-Pacific region.

ACIAR views capacity as the ability of individuals, organisations and systems to perform agricultural research for development effectively, efficiently and sustainably. Capacity building for ACIAR is thus a process of strengthening the abilities of individuals, organisations and systems to undertake agricultural research, and to continue to advance development outcomes. Capacity building occurs across multiple levels – individual, organisational and institutional, and is much more than merely transferring skills and knowledge through training. It includes on-the-job training, leadership, mentoring, two-way transfers of ideas and technologies, and empowerment to undertake research. ACIAR considers capacity building holistically throughout all of our research activities, including investments in projects, fellowships, and interactions with Australian and developing-country scientists and project staff.

ACIAR's approach includes both formal and project-based capacity building. The formal suite of capacity building includes:

- the John Allwright Fellowship Program: providing formal postgraduate training in Australia;
- **the University of South Pacific Fellowship: postgraduate training in the Pacific;**
- the John Dillon Fellowship Program: providing intensive career development training;
- support to the Crawford Fund: delivering training and links with Australian-based networks, masterclasses and an annual conference at Parliament House;
- international institutional support programs: delivering capacity building through our global program, such as the Australia-Africa Plant Biosecurity Partnership and contributions to regional organisations;
- event funding to facilitate networking and dissemination of knowledge; and
- the Researchers in Agriculture for International Development (RAID) Network: supporting early-career Australian researchers to engage with agricultural research for development.

Capacity building is also a key component of our portfolio of research projects. Our projects use a range of bespoke capacity building approaches, including explicit organisational support, individual on-the-job training, mentoring and learning by doing, supporting linkages with Australian institutions, and facilitating the development of networks. The flexible nature of these approaches has been highlighted as a significant strength of ACIAR's approach, allowing us to adapt to specific country, institutional and individual circumstances.

During the next 10 years, ACIAR's capacity building will deliver a range of innovative capacity building approaches, focused at multiple levels: individual, organisational and institutional, and promoting gender equity, for effective international agricultural research for development in the Indo-Pacific region.



In order to deliver of the goals of ACIAR's 10-year strategy, the capacity building program has been designing a range of new programs and initiative, and, where required, redesigning and evaluating existing approaches. As part of this process, ACIAR wishes to review, evaluate and redesign our Pacific postgraduate fellowship program, currently the USP Scholarship Program and associated USC twinning program. In undertaking this evaluation and redesign, ACIAR wishes to determine if USP is an effective provider of regional postgraduate training, as well as if the current approach is effective in increasing agricultural research skills in the region. Moreover, ACIAR wishes to determine if the current approach is offering greatest value for money and compare it to other possible models of delivering training in the Pacific.

### **Outputs**

The consultant will, in collaboration with ACIAR staff deliver the following outputs:

- Document review in collaboration with design consultant David Swete-Kelly
  - Review of current USP Scholarship and USC Twinning Arrangements
  - The review shall include the following elements:
    - **Review of Programmatic approach**
      - Operation of the programs and their governance
      - Value for money and efficiency, including tuition fee structures
      - Sustainability of approach
      - Effectiveness of program partners (USP, USC)
      - Likelihood of institutional capacity building/ change
- **Review of academic outputs**
    - Student numbers
    - Student experience
    - Student outcomes and destination post-scholarship
    - Impact on student's careers: case studies
  - **Review of strategic alignment**
    - Alignment of the program with USP's institutional strategy
    - Alignment of the program with ACIAR's institutional and 10-year strategy. This includes the disciplinary and geographic focuses of ACIAR's Pacific programs and interaction with ACIAR's research projects.
- The review shall be in a standard ACIAR format and be no longer than 20 pages in length (not including annexes)

## Annex 3: Sites Visited and Persons Consulted

ACIAR Review Committee visit: 8-12 October 2018

### USP Suva – Laucala Bay Campus 8-9 October

#### Monday 8 October

9:00am – 10:00am  
(FSTE Board Room)

#### Program

Meeting with support staff  
- Viliamu Powell (ACIAR Graduate Assistant Officer)  
- Hasina Haroon (FSTE Finance and Admin Officer)

10:00am – 11:00am  
(School of Marine Science Conference Room)

Meeting with students and supervisors  
- Charlene Erasito (Dr Rajesh Prasad)  
- Heimuli Likiafu  
- Liliani Hughes (Dr Rajesh Prasad)

11:00am – 12:00pm  
(FBE Office)

Meeting with Dr Gurmeet Singh (FBE, former member ACIAR-USP Management Committee from 2010-2017)

12:00pm – 1:00pm  
(HR Office)

Meeting with Dr Anjeela Johkan (VP, HR and IT services, Chair of the Management Committee from 2010 onwards)

1:00pm – 2:00pm

Lunch

2:00pm – 4:00pm  
(FSTE Board Room)

Meeting with current ACIAR-USP Management Committee members  
- Dr Bibhya Sharma (Acting Dean, FSTE)  
- Dr Ronald Lal (Associate Dean, FBE, Research and Graduate Affairs)  
- Prof. Sushil Kumar (Associate Dean, FSTE, Research and Graduate Affairs)

#### Tuesday 9 October

9:00am – 10:00am

Meeting at Ministry of Fisheries and Forestry (Takayawa Building Suva)  
- Ms Sanjana Lal (Conservator of Forests)  
- Mr Shalendra Singh (Aquaculture Programme Manager)

10:30am – 11:30am

- Meeting with Tami Harriot

12:00am – 1:00pm

Meeting at FNU Koronivia Campus  
Dr Salesh Kumar (FNU) and Dr Paul Iji (FNU, Dean, CAFF)

1:00pm – 2:00pm

Lunch

2:00pm – 4:00pm

Meeting with Ministry of Agriculture (Managers/alumni of PSS) Mr Ami Sharma (Principal Research Officer), Mr Binesh Prasad (ag. Provincial Agricultural Officer, Western Division)

5:00pm – 8:00pm

Meeting with Alumni – Venue Central Cuisine Events Centre (18 confirmed)

### USP Samoa – Alafua Campus 10-12 October

#### Wednesday 10 October

1:10pm

#### Travel Day

1:10pm Flight from Nadi to Apia Samoa



## USP Suva – Laucala Bay Campus 8-9 October

<b>Thursday 11 October</b>	<b>Staff Meetings</b>
9:00am – 10:00am	Meet with ACIAR-sponsored students and supervisors - Luaiufi Aiono (Dr Md Abdul Kader and Falaniko Amosa) - Selina Oikal (Dr Md Abdul Kader) - Luisa Wara (Dr Sonny Lameta) - Kelemení Navucu (Dr Sonny Lameta)
10:00am – 12:00pm	Meeting with Head of School (Assoc. Prof. Mohammed Umar) and other senior lecturers - Dr Jagdish Bati - Mr Falaniko Amosa - Dr Nandakumar Desai - Siaka Diarra
1:00pm – 2:00pm	Lunch
2:00pm – 4:00pm	Visit student field sites
<b>Friday 12 October</b>	<b>Meetings</b>
9:00am – 10:00am	Mr Tilafono David Hunter (CEO, Ministry of Agriculture and Fisheries Samoa)
10:00am – 11:00am	Dr Tuifuisa Amosa (National University of Samoa)



## Annex 4: Acronyms

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Acronym	Explanation
ACIAR	The Australian Centre for International Agricultural Research
FBE	The Faculty of Business and Economics
FNU	Fiji National University
FSTE	The Faculty of Science, Technology and the Environment
GA	Graduate Assistantship
GO	Graduate Officer
JAF	John Allwright Fellowship
MDF	The Market Development Facility
MoU	Memorandum of Understanding
NUA	National University of Samoa
PARDI	The Pacific Agribusiness Research for Development Initiative
PHAMA	The Pacific Horticultural and Agricultural Market Access Program
RAID	Researchers in Agriculture for International Development Network
RPM	Regional Project Managers
SAFT	School of Agriculture and Food Technology
SINU	Solomon Islands National University
SPC	The Pacific Community
USC	The University of the Sunshine Coast
USP	The University of the South Pacific
USP-PSS	The ACIAR-USP Postgraduate Scholarship Scheme



**ACIAR**

**Australian  
Aid** 