

Building partnerships  
for transformative  
innovation in  
agricultural research  
for development –  
learnings from 15 years  
of ACIAR’s  
postgraduate  
scholarships program  
in the Pacific

*“So much more than a scholarship scheme”*

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# Trouble in paradise

- Agrifood systems in the Pacific islands face an existential crisis
- Fit-for-purpose innovation, to catalyse transformative change, urgently needed
- These are ‘wicked’ problems and Pacific states individually do not have the skills and resources to tackle them
- Partnerships in research and education for development can help to generate impactful, Pacific-owned solutions



# Partnerships in Research for Development (R4D)

ACIAR – Australian Centre for International Agricultural Research

USP – University of the South Pacific

FNU – Fiji National University

UniSC – University of the Sunshine Coast

## ACIAR's *modus operandi*

- Australia's specialised agricultural R4D agency
- Links researchers in Australia (and internationally) with fellow researchers and development practitioners in developing countries, to tackle priority problems – in agriculture, forestry, and fisheries
- Priorities are identified in dialogue with governments and national agencies
- Intervention is through time-bound projects or programs that are designed to tackle an issue and move on
- Innovations are generated locally and the project leaves behind the individual and institutional capacity to continue to innovate and tackle new problems

# Partnerships in agricultural education

Building an innovation system capable of delivering transformative change

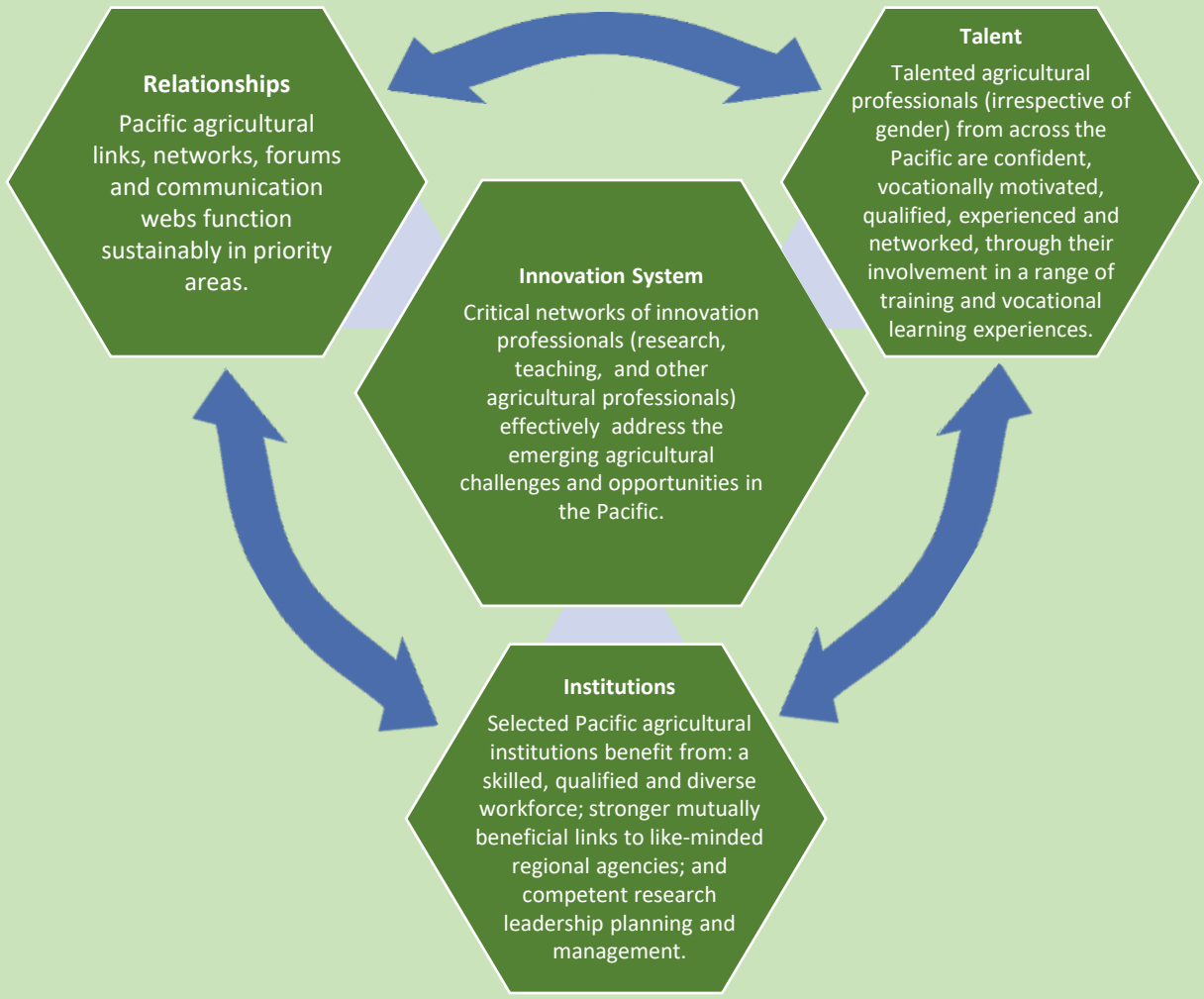
From 2008 ACIAR decided to co-invest in the agricultural education system at postgraduate level.

- The program evolved over 16 years and had three phases – lessons were learned pragmatically over the years
- Key elements of the program:
  - Students are registered at a Pacific university and stay in the Pacific region for their studies
  - They carry out their thesis research linked to an ACIAR project
  - Main focus is on MSc-by-research scholarships (with some postgrad diplomas and a few PhDs)
  - Significant support for students and supervisors
- A formal strategy and Theory of Change were developed only after 10 years
- **Now, at the end of the third phase of the program, we review the outcomes – based mainly on a review of alumni experiences – and seek to draw lessons in terms of the value of this model for sustainable development in the Pacific**



# Theory of Change

## Building elements of an agricultural innovation system



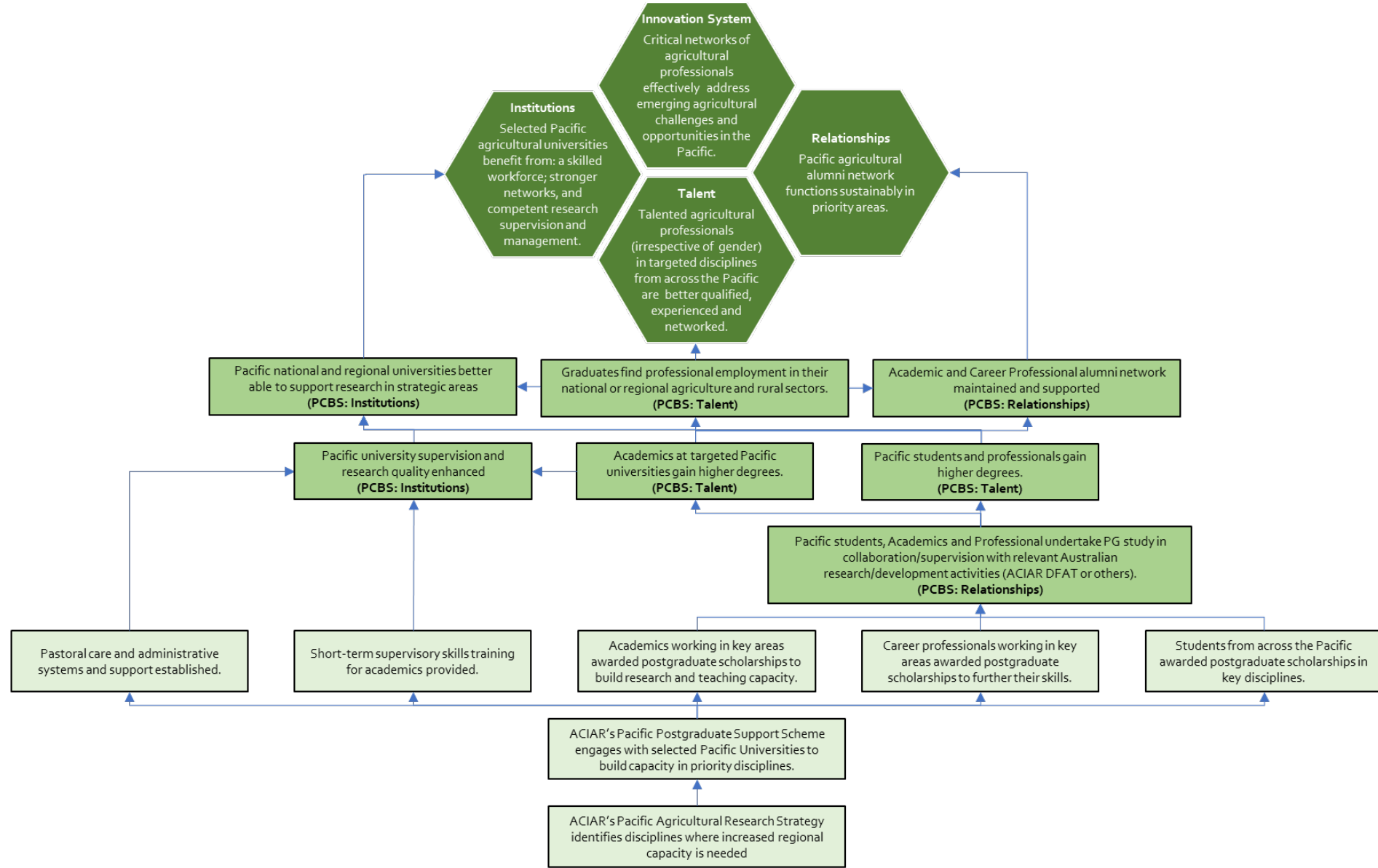
*Elements of a Pacific Capacity building strategy (ACIAR, 2019)*



Contribution to PCBS Outcomes

Pacific PASS Outcomes

Pacific PASS Inputs/Outputs



## Scholarship scheme in practice: Case study 1 – Soils R4D

Collapsing soil fertility is at the root  
of falling agricultural productivity



This thread started with an ACIAR project in 2009 to tackle crisis in Fiji's taro export industry

- Partners were Fiji Min. of Agric., Queensland DPI, AVI and TeiTei Taveuni
- Two Min. of Agric. staff (analytical chemist and extension officer) received MSc scholarships
- Advanced their careers in Min. of Agric. – became leaders/decision-makers
- Became research partners in a wider regional ACIAR soils project, with CSIRO
- Both went overseas for PhD studies
- Brought innovations to Fiji – soil health report cards to farmers and advanced analytical tests based on NIRS
- Fiji's Min. of Agric. lab has become a soil analysis hub for the region
- SPC (the Pacific Community, regional research and technical organisation) hosts the Pacific Soils Portal, promoting data exchange across the region
- Former Fiji extension officer now leads soils research at SPC for the region

## Scholarship scheme in practice: Case study 2 – Aquaculture R4D

Aquaculture underpins protein supply  
and rural livelihoods



- Series of ACIAR projects to address priorities identified by SPC and its partners:
  - Prawns
  - Pearl oysters
  - Sea cucumbers
  - Marine algae
- Each area of study led to an ACIAR MSc scholarship in that field
- Each of the awardees went on to do a PhD overseas (various disciplines) – further building skills and networks
- Ten years on, the pearl oyster and sea cucumber scholars have become Fiji's leading researchers in these fields, bringing technical advances and livelihood benefits
- Prawn and marine algae scholars have both become academics at FNU – both have served as Head of Department of Fisheries and developed their own research groups

## Scholarship scheme in practice: Improving individual outcomes

- Low completion rates led to emphasis on greater support for students – starting from orientation
- All awardees reported the special value of building networks with other researchers in the Pacific and overseas

- Twinning with an Australian university, strong in applied research, led to:
  - Targeted skill building – experimental design and statistics, scientific writing etc.
  - Improved processes and procedures for supporting HDR students
  - Strengthened HDR supervision skills and improved supervision arrangements
  - Access to library and bibliographic services and peer networking (seminars etc.)
  - Change in institutional climate and attitudes? Change in student/supervisor dynamics?



## Scholarship scheme in practice: Strategic building of institutional capacity

- **Forestry at Fiji National University**
- **Soils at USP – Alafua Campus, Samoa**  
(former School of Agriculture and Food  
Technology)



### **Forestry at FNU**

- Two senior members of faculty awarded PhD scholarships
  - Agroforestry – a key technology for increasing resilience
  - Wood processing – a key technology for increasing commercial viability
- Too early to assess outcomes but both will bring their experiences back to their teaching and supervision of HDR students

### **Soils at USP Alafua**

- Already had faculty qualified to PhD level and supervising HDR students
- Strengthened capacity to partner in soils research projects
- Recommendations for revising teaching syllabus

## Scholarship scheme in practice: Mainstreaming climate resilience

- A. **Competitive small grants initiative – ‘Future Thinkers’**
- B. MSc in Climate Resilience at FNU – not implemented
- C. Long-term research hubs to host and facilitate HDR research – cancelled

### **Competitive small grants program in climate resilience**

- Intended to bring a climate resilience perspective into their existing agriculture/forestry/fisheries thesis work
- Two years: first for HDR students; second for HDR supervisors (often partnering with their HDR students)
- Targeted capacity building – understanding climate impacts and resilience opportunities
- Built useful career skills (e.g. applying for competitive grants)
- Numerous positive outcomes reported: in individual and institutional capacity



## Some dilemmas

Individual excellence and opportunity vs. national and regional needs

University/academic vs. development imperatives

Respect for Pacific culture vs. need for change

Study at home vs. abroad



## Study at home or abroad?



### Considerations mentioned by alumni:

- Less disruptive to family connections and responsibilities
- Conducting applied research on priority problems of home country in relevant farming system
- Building skills within the range of facilities available within the Pacific (and often with the option of upgrading local facilities to use new skills)
- Relatively generous grants support thesis research AND overseas travel – e.g. to conferences

### Merits formal assessment of outcomes and impacts

- via tracer studies and
- broader evaluation of cost-effectiveness

## Some learnings



- The Pacific agriculture scholarships model was effective in generating enthusiasm for applied research
- The model of partnering Australian and Pacific universities, and linking them with development projects and partners, offered numerous positive outcomes, in terms of both individual and institutional capacity building
- The program has contributed to building key elements of an agricultural innovation system
- There is a continuing need for climate resilience-related research, education and development investment – the initial positive outcomes of the Pacific agriculture scholarship experiment deserve expanding
- Merits formal assessment of outcomes and impacts

*“So much more than a scholarship scheme”*



“The ACIAR scholarship I received gave me the opportunity to pursue a PhD and this has allowed me to contribute to the agriculture sector in my country and now my region.”

“I am currently employed as a lecturer at the School of Agriculture, University of the South Pacific. ... Guidance from ACIAR supervisors was priceless.”

“ACIAR aligned research has provided opportunities to network with professional experts in NGOs, development agencies and international agriculture.”

“The ACIAR program has played a significant role in giving my research recognition at international levels and opening gateways to future research collaboration and works locally.