



**Australian Government**

**Australian Centre for  
International Agricultural Research**

# Project final report

*Project*

## **Pacific Agribusiness Research in Development Initiative Phase 2 – PARDI 2**

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## ***LIST OF ACRONYMS***

ACIAR	Australian Centre for International Agricultural Research
AMC	Agribusiness Master Classes
DFAT	Department of Foreign Affairs and Trade, Government of Australia
EU	European Union
FACT	Facilitating Agricultural Commodity Trade (of EU-SPC)
FAO	Food and Agriculture Organization of the United Nations
FBA	Fiji Beekeepers Association
FSPI	The Foundation of the Peoples of the South Pacific International
GFS-UoA	Global Food Studies program - University of Adelaide
HACCP	Hazard Analysis Critical Control Point
IACT	Increasing Agricultural Commodity Trade (of EU-SPC)
IFAD	International Fund for Agricultural Development
MAWG	Market Access Working Group (of PHAMA)
MDF	Market Development Facility (DFAT)
MCTTT	Ministry of Commerce Trade Tourism and Transport
M4C	UN Women's Markets for Change Project
PARDI	Pacific Agribusiness Research in Development Initiative
PHAMA	Pacific Horticultural and Agricultural Market Access Program (DFAT/MFAT)
PIC	Pacific Island Country
PIDF	Pacific Islands Development Forum
PIFON	Pacific Islands Farmer Organisation Network
PIPSO	Pacific Islands Private Sector Organization
POETCom	Pacific Organic and Ethical Trade Community
SCU	Southern Cross University
SLA	Sustainable Livelihoods Approach
SPC	Pacific Community (formerly Secretariat of the Pacific Community)
SPTO	Pacific Tourism Organisation (formerly South Pacific Tourism Organisation)
UoA	University of Adelaide
USC	University of Sunshine Coast
USP	University of the South Pacific
UQ	The University of Queensland
VTO	Vanuatu Tourism Office

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# 1 Acknowledgments

This project report outlines the research and capacity building efforts of a large number of individuals and agencies.

We acknowledge the initial project leader Dr Lex Thomson (2016 to 2020) and the prior ACIAR agribusiness program managers Dr Rodd Dyer (retired) and Mr Howard Hall (retired).

We are particularly grateful for the collaboration and support throughout this project of our in-country partners Pacific Islands Farmer Organisation Network (PIFON) – including former Program Manager Lavinia Kaumaitoia and Manager Kyle Stice.

We extend our appreciation to the following agencies and business enterprises who played a critical role in project delivery: Fiji Ministry of Agriculture, Pacific Tourism Organisation (formerly South Pacific Tourism Organisation), Pacific Community, Pacific Organic and Ethical Trade Community, Pacific Islands Private Sector Organization, Vanuatu Bureau of Standards, Vanuatu Department of Tourism and local Ni Vanuatu Technical Advisors, Regenerative Vanua, Vanuatu Skills Partnership, Vanuatu Agritourism Association, Vanuatu Ministry of Tourism, Trade, Commerce and Ni Vanuatu Business, Tourism Fiji, the Fiji Hotel and Tourism Association, Fiji Beekeepers Association, Tilapia Fiji Association, Pacific Women and Pacific Connect, Lautoka City Council, Fiji Kava, Natures Way Cooperative, Fiji's Ministry of Fisheries, the University of the South Pacific, Biosecurity Authority of Fiji, HACCP Australia (Fiji), Bulaccino, Namosi Eco Retreat, Bula Coffee, Waitika Farm, Marama Niu, GingerLei Beer, Mama's Mushrooms and Cegu Valley Farm.

We would especially like to acknowledge the support and contributions made by Votausi Mackenzie-Reur, Jerry Spooner, Leonid Vusilai, Kehana Andrews, Norah Rihai, Luke Fryett, Benson Samuels, Ina Wells, Tim Pickering, Janey King-Lilo, Wayne Lilo, Monal Lal, Manoj Kumar, Laisiasa Cavakiqali, Avinesh Dayal, Asween Kumar, Nilesh Kumar and John Caldeira.

We further acknowledge that some of our reported activities and achievements directly benefited from co-funding support provided by Market Development Facility (DFAT), European Union (EDF 11), Market Access Working Group (of PHAMA), and UN Women's Markets for Change Project, as well as following collaborating ACIAR projects:

- LS/2017/100 Novel approaches for increasing participation in the honeybee industries of the Pacific
- FST/2016/158 Domestication of Santalum yasi in Fiji and Tonga (pipeline)
- LS/2020/155 Development of a third party verified voluntary sustainable certification program
- LS/2014/042 Increasing the productivity and profitability of smallholder beekeeping enterprises in PNG and Fiji

## Author contributions

In documenting the outputs, we have attempted to acknowledge all collaborators, but we note there may be some remaining, inadvertent, oversights.

In terms of specific co-author contributions to the report: Dr Cooper Schouten and Mr Theo Simos provided a technical contribution to section 7.2 Fiji Honey and sections 8.2.3 and 8.2.3; Ms Salote Waqairatu, Mr Theo Simos, Janey King-Lilo and Wayne Lilo and Dr Monal Lal provided a technical contribution to section 7.2 Tilapia; Ms Marita Manley and Dr Cherise Addinsall provided a technical contribution to Sections 7.2, 8.2.1, 8.2.2 and 8.3 Agritourism. Prof Paul Southgate, Mr Craig Johns, Ms Lavinia Kaumaitoia and Mr Kyle Stice provided technical review of the project document. All other sections were prepared by Prof Steven Underhill and Dr Inez Mahony. Former PARDI-2 project leader Dr Lex Thomson provided supporting supplementary technical review.

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## 2 Executive summary

Pacific Agribusiness Research for Development Initiative (AGB/2014/057) PARDI-2<sup>1</sup> has made a significant contribution to agribusiness awareness and capacity in Fiji and Vanuatu (specifically in the agritourism, honey and tilapia industries). We have delivered impact in individual Pacific agribusiness enterprises and industry associations, as well as helped shape, reform and enable national policies.

PARDI-2 was designed around three core objectives: (1) develop tools and resources to document and communicate agribusiness best practice, (2) identify and enable chains of selected Pacific agribusiness; and (3) provide relevant agribusiness capacity building. Based on value chain reviews the project initially prioritised 12 potential industries<sup>2</sup>, for agribusiness support, across three Pacific Island countries (Fiji, Vanuatu and Tonga). In Oct 2019, a mid-term review necessitated a significant project re-design aimed at introducing a more focused approach and an increased emphasis on the impact pathway. In early 2021, additional agribusiness expertise was incorporated into the project team, and a rapid review undertaken to further prioritise agribusiness industry/enterprises and identify possible interventions with an impact pathway. As a result, PARDI-2 was further refined around three core agribusiness industries: Agritourism (Fiji and Vanuatu); Honey (Fiji); and Tilapia (Fiji).

### ***Agritourism (Fiji and Vanuatu)***

- PARDI-2 had a key role in shaping Government policy, as well as enhancing Government, not-for-profit and private industry services that support the Vanuatu agritourism sector. We co-authored and supported the launch of the [Vanuatu Sustainable Tourism Strategy](#), had a leadership role in drafting the agritourism component of this strategy, were instrumental in the development of the [Food Tourism and Agritourism Initiative \(Produktif Turism Blong Yumi\)](#), helped set up the Vanuatu Agritourism Office; and provided capacity building support to the key stakeholders. The Food Tourism and Agritourism Initiative gained international award recognition<sup>3</sup>.
- Technical support provided to the Vanuatu Department of Tourism and local Ni Vanuatu Technical Advisors has further led to the establishment of a new not-for-profit organisation – Regenerative Vanua.
- PARDI-2 had a key role in establishing and launching the Vanuatu Agritourism Association, including co-writing their terms-of-reference and constitution. As a result, the Association is now providing an important peer-to-peer support network and has further raised the profile of the sector to the Vanuatu Government. An important flow-on impact of the Association's formation has been securing funding from the European Development Fund (VT\$1 million) to further help transition 30 agritourism ventures into sustainable enterprises.
- In Fiji, PARDI-2 convened a series of agritourism-experiences *Talanoa* (workshops), which led to the development of an agritourism support programme (in partnership with the Fiji government and industry partners). As a result, improved agritourism experiences were achieved at Namosi Eco Retreat and Paradise Taveuni, new agritourism experiences at Bula Coffee and Bulaccino Farm and critical improvements at Cegu Valley Farm.
- PARDI-2 has provided technical support to six women-led Fiji agribusiness, improving business practice. For example: [Marama Niu and Rabi Virgin Coconut Oil Producers](#) were supported to co-develop a new product and value chain (based on coconut nectar and virgin coconut oil), which they now sell into the Suva market. This achievement has important community impacts, given that Rabi Island is a small remote island community.
- In response to an end-of project recommendation, two reports (An agritourism experiences in Fiji: A snap-shot 2023, and Regenerative Agritourism: Industry snapshot and opportunities for Agritourism and Food Tourism in Vanuatu) have been produced to provide a concise overview of the agritourism industries in Fiji and Vanuatu.

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<sup>1</sup> PARDI-2 builds on the achievements of PARDI-1 (Pacific Agribusiness Research for Development Initiative PC/2008.044 [2010-2015]).

<sup>2</sup> Breadfruit (F,T), beef (V), cocoa (F,V), floriculture (F), ginger (F), honey (F), kava (F,T,V), kumala (F,V,T), mango (F), sandalwood (F,V,T), seaweed (T), and bamboo. [Note: F=Fiji; T=Tonga; V= Vanuatu].

<sup>3</sup> In April 2022, the initiative was the winner of the Island Innovation Award for “Most Transformative Government Sustainability Initiative”. This Clinton Global Initiative recognises individuals, organisations and projects driving positive change for remote and island communities globally.

### **Honey (Fiji)**

- A [value chain analysis of honey production in Fiji](#), and consumer and retail research has highlighted the need for stronger marketing and branding effort by producers/traders.
- To improve marketing capacity, technical resource material and business-specific and industry-wide capacity building was undertaken<sup>4</sup> (webinars attended by over 130 participants online, a Honey Tool kit, and intermediate and advanced beekeeping profitability accounting tools).
- Two trainers have been supported to provide value added bee product training, which has been delivered to almost 100 people (77% women) in Fiji. Impact reports highlight that 80% of participants have continued making products, with over 30% having made cash incomes (FDJ\$413 pp) from value added bee products.

### **Tilapia (Fiji)**

- To document current knowledge and best practice, as well as raise awareness of business and marketing fundamentals, we co-prepared The Tilapia Compendium, which was released in March 2022.
- A Tilapia industry workshop and a rapid market assessment of the local Fiji fish market and tilapia food service trials have shown there is a commercial local market for tilapia if product quality, size, and postharvest handling practices can align with consumer expectations.
- To show how low market penetration of farmed tilapia can be resolved by adopting a new and different approach, we undertook a series of live fish pilot marketing demonstrations at the Lautoka markets driven by the private sector, through a farmers' association (Tilapia Fiji). These demonstrations provided important new market-information, and also served to raise consumer and service industry awareness of the benefits of farmed-Tilapia.
- To improve local industry support services, we also provided technical assistance to Tilapia Fiji which enabled them to successfully register as a farmer organisation.
- In partnership with Pacific Women and Pacific Connect, we have further supported Tilapia Fiji to raise the profile of women tilapia farmers, based on attendance at the Triennial for Pacific Women virtual event (April 2021) attended by over 40 women from across the Pacific; and by convening another virtual event for Women in Aquaculture (June 2021) with 21 attendees from the Pacific, Indonesia and Australia.

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<sup>4</sup> We focused on five honey enterprises, with indirect support provided to a further 30 Fiji Beekeepers Association members.

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## 3 Background

Agribusiness innovation has a critical role to play in poverty alleviation and livelihood development, particularly in rural Pacific communities. In 2017, ACIAR commissioned the University of the Sunshine Coast (Australia) and our research and industry partners to deliver the PARDI-2 initiative, with a focus on agribusiness research and capacity building in Fiji, Vanuatu and Tonga<sup>5</sup>.

PARDI-2 builds on the achievements of PARDI-1<sup>6</sup> (Pacific Agribusiness Research for Development Initiative PC/2008.044 [2010-2015]), with the continued aim of enabling sustainable livelihood improvements in Pacific Island countries (PICs) through agribusiness innovation. Whilst PARDI-1 identified and supported promising technologies and emerging agribusiness enterprises in the agriculture, forestry and fishery sectors, important unanswered research questions and capacity constraints remained.

In seeking to support Pacific agribusiness, it is important to recognise the sector has a challenging operational environment. Limited access to critical equipment and infrastructure, international market access constraints, low-intensity and small-scale agri-food production systems, access to start-up micro-finance, competition from cheap imported product, land access, and labour and entrepreneurial capacity are ongoing constraints (Kumar, and Bhati, 2011; Underhill, S. 2012; Barbour and McGregor 2019; Bovororo et al., 2019). Despite these challenges, there are many examples of viable and successful Pacific agribusinesses and associated value chains within the agriculture, forestry and fisheries sectors (Naidu et al., 2014; Stringer 2015; Francis, and Dietershagen 2017; Sherad and Underhill 2018). Surprisingly, there is a general dearth of information on the enablers for Pacific agribusiness success, Pacific agri-enterprise best practice, and local agribusiness sustainability.

In response to this knowledge gap, the initial phase of PARDI-2 (2017 to 2019), the project team analysed the operational environment and key Pacific agribusiness to determine:

1. How can Pacific agribusiness development be more inclusive and sustainable (in the economic, environmental and social senses) both for businesses and Pacific islander livelihoods?
2. How can Pacific agribusinesses improve market knowledge and marketing efforts to access higher value and more consistent markets?
3. How can the public sector, donors and the project facilitate agribusinesses and their primary producer network overcome barriers in identifying and linking to emerging market opportunities in a way that is lasting, inclusive, profitable and scalable?

The initial focus of the project was to explore how and why some Pacific agribusinesses succeed, document their potential livelihood impacts, and investigate how best to extend and make associated economic benefits more inclusive and sustainable. The project further sought to identify and resolve researchable constraints and key bottlenecks within selected value chains<sup>7</sup>.

Within the broader goal of economic and enterprise development, the project aimed to improve Pacific livelihoods, through helping smallholder farmers transition to more sustainable, market-oriented and diversified systems that focused value-adding and agribusiness opportunities, inclusive of recognition of the role of women in agriculture.

Between 2017 and 2019, the project identified and prioritised 12 agricultural products, undertaking associated agribusiness case studies and value chain reviews in Fiji, Vanuatu and Tonga. As a result of these studies, a range of technical resource material was prepared, with business mentoring and capacity building and technical training to local stakeholders provided. In October 2019, the

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<sup>5</sup> *In the second phase of the project (i.e. post mid-term review), agribusiness studies and interventions were limited to Fiji and Vanuatu.*

<sup>6</sup> <https://search.informit.org/doi/abs/10.3316/informit.288554323320216>

<sup>7</sup> *Value chains with a level of comparative advantage.*

project had a Mid-Term Review, which highlighted the need for a significant project re-design to improve project clarity and purpose, enable a better alignment between the project aims and content, and develop a more effective impact pathway. The core recommendation of the mid-term review was to “*identify and facilitate agribusiness development opportunities that will contribute to improved economic growth and livelihoods in the Pacific.*”

The project re-design (Oct/Dec 2020) initially involved concentrating effort on Fiji and Vanuatu, and focussing on honey, tilapia, kava, agritourism, papaya agribusiness enterprises and some non-sector aligned businesses<sup>8</sup>. In early 2021, additional agribusiness expertise was incorporated into the project team, and a further rapid review undertaken to prioritise agribusiness industry/enterprises and possible support interventions<sup>9</sup>. As a result of this review, and in close consultation with the ACIAR agribusiness RPM, the project was further re-designed around three core agribusiness sectors:

1. Agritourism (Fiji and Vanuatu)
2. Honey (Fiji)
3. Tilapia (Fiji)

The project team was amended to introduce new technical expertise, a project governance structure established, and multiple project contractual variations to formalise revised objectives, budgets and milestone deliverables. The project then sought to enable and document targeted agribusiness industry and/or enterprise success case-studies and economic impact in Fiji and Vanuatu<sup>10</sup>.

Given the scale of the project re-design, the overall project logical framework and impact pathway now have elements that are now incongruous. This particularly applies to knowledge products initiated prior to the mid-term review, in support of industries where further agribusiness support was not undertaken (i.e. bamboo and breadfruit). A review of these knowledge products (i.e. technical reports, manuals and compendium) was undertaken with the intent of identifying and finalising those reports with industry merit, and then enabling effective industry distribution and access.

The final over-arching project design adhered to the following core objectives:

1. Develop tools, products and knowledge for researchers and agribusinesses identifying successful and inclusive agribusiness development opportunities.
2. Identify and enable value chains for selected Pacific agribusinesses, sectors and products.
3. Develop relevant agribusiness capacity building that supports enterprise sustainability.

In delivering PARDI-2 technical resources and expertise were sourced from the following project collaborating agencies.

1. University of the Sunshine Coast (commissioned agency; co-led tilapia program)
2. Southern Cross University (led-honey program; led agritourism- Vanuatu program)
3. Pacific Islands Farmer Organisation Network (co-led tilapia program; led Agritourism-Fiji program)
4. University of Adelaide (Agribusiness master classes and capacity building)
5. Private consultants (Marita Manley, Theo Simos, Manoj Kumar)
6. The University of the Queensland<sup>11</sup>
7. Pacific Community<sup>12</sup>

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<sup>8</sup> *In the first 12 months of the project, we prioritised breadfruit (F,T), beef (V), cocoa (F,V), floriculture (F), ginger (F), honey (F), kava (F,T,V), kumala (F,V,T), mango (F), pandanus (F,T), sandalwood (F,V,T), seaweed (T), and Bamboo. [Note: F=Fiji; T=Tonga; V= Vanuatu]. PARDI-2 further considered supporting goats/small ruminants, indigenous nuts, pearls, sea cucumber, vegetables, and tropical fruits industries.*

<sup>9</sup> *Theo Simos external review (Jan to March 2020). Review objectives: Undertake an agribusiness review of the project activities and deliverables since project inception to January 2020, and prepare a concise new project work plan. This report itemised each project objective and sub-objective and provided a recommendation as to whether the activity should be continued, terminated or modified (and a concise supporting justification). This assessment considered past investment and overall criticality (anticipated likelihood of adoption, industry benefit and impact).*

<sup>10</sup> *Post mid-term review, project activities in Vanuatu were limited to Agritourism industry development.*

<sup>11</sup> *Project involvement ceased in late 2020.*

<sup>12</sup> *Project involvement ceased in late 2020.*



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## 4 Objectives

Within the broader goal of economic and enterprise development, this project endeavoured to improve livelihoods, through helping smallholder farmers transition to sustainable, more market-oriented and diversified production and recognising the key role of women in agriculture, associated value-adding and agribusiness.

Noting a significant project design in January 2022, objectives 1.1 to 1.4 and 3.1 to 3.3 and associated activities were limited to the pre mid-term review phase of this project. Objective 2.1 to 2.5 represent the key focus during the post mid-term review phase.

Objective 1. Develop tools, products and knowledge for researchers and agribusinesses identifying successful and inclusive agribusiness development opportunities.

- 1.1 Evaluate and refine a framework for identifying and prioritising potential agribusiness development opportunities and livelihood outcomes.
- 1.2 Case studies of 5-7 successful agribusinesses/products in each of Fiji, Tonga and Vanuatu (including at least one female-led in each country) to evaluate business, economic and livelihood impacts, and identify crucial factors associated with success as well as key constraints to further growth and impacts of current policies and regulations.
- 1.3 A review and case studies of risks to Pacific agribusiness and develop a risk minimisation and mitigation framework and strategies.
- 1.4 An analysis of barriers and opportunities to make value chains and agribusiness and their benefits more sustainable and inclusive in the Pacific Islands.

Objective 2. Identify and enable value chains for selected Pacific agribusinesses, sectors and products.

- 2.1 Identify and prioritise products from Pacific ACIAR projects where participatory agribusiness research could realise significant market and livelihood potential.
- 2.2 Conduct participatory value chain analyses for at least five products identifying weaknesses and bottlenecks in the chain(s), researchable constraints and intervention options for market development.
- 2.3 Support and develop the agritourism sector in Fiji and Vanuatu.
  - 2.3.1 Mainstream agritourism within the Vanuatu Sustainable Tourism Strategy and the Fiji Sustainable Tourism Strategy.
  - 2.3.2 Support the establishment of a Vanuatu and Fiji agritourism association, to better coordinate and empower this emerging sector.
  - 2.3.3 Develop and deliver a capacity building program with key stakeholders (i.e., product development tools, training, start-up guides, development of marketing content) to support smallholder agribusiness and communities in the development of Agritourism experiences.
  - 2.3.4 Pilot the capacity building program at the enterprise-level in Fiji and Vanuatu (targeting 5 selected agritourism operators) to demonstrate the support required to launch successful agritourism experience providers.
- 2.4. Support and develop Tilapia Fiji
  - 2.4.1 Develop research program in partnership with Government and industry collaborators, SPC, Min of Fisheries and Tilapia Fiji (association of farmers).
  - 2.4.2. Enterprise support activities targeting key stakeholders.

- 2.4.3. Select 1-2 farmers to engage with the project and invest in market demonstration projects to assess three products (live fish, chilled fish on ice and frozen fillets)
- 2.4.4. Market assessment to demonstrate new market channels and the development of linkages to private sector channel operators to trial both the distribution pathways and consumer product presentation and safety suitable to fish buyers and shoppers.
- 2.4.5. Industry event (partnering with PIFON) bringing together key stakeholders to report outputs at enterprise and farmer association level.
- 2.5 Develop and strengthen domestic honey industry in Fiji
  - 2.5.1. Established partnership with Min of Agriculture and established a joint work programme with sister ACIAR Project delivered by SCU to support Fiji Beekeepers Association and market development.
  - 2.5.2. Consumer and retailer analysis to summarise key consumer preferences and communicate recommendations to partners and honey industry stakeholders.
  - 2.5.3 Develop customised marketing and branding guidelines (presentation form) and associated training material for FBA instructors, to support beekeepers seeking new market development opportunities.
  - 2.5.4. Provide, on a needs basis, one-to-one mentoring for up to 5 enterprises including advice towards improving and monitoring current marketing and branding efforts.
  - 2.5.5. Provide, on a needs basis, one-to-one mentoring for up to 5 commercial honey packers to develop quality assurance plans (e.g. HACCP).
  - 2.5.6. Phase 2 of honey marketing mentorship program (marketing distribution channel analysis) and development of honey market report.
  - 2.5.7. Value added product workshop report and analysis
  - 2.5.8. Develop and trial Fiji Smallholder Beekeepers Business Profitability and Accounting tool
  - 2.5.9. Webinar series on honey branding, marketing, labelling, and packaging and honey quality assurance

Objective 3. Develop relevant agribusiness capacity building that supports enterprise sustainability.

- 3.1 Develop and maintain the PARADI 2 website with up-to-date information on the project and Pacific agribusiness.
- 3.2 Evaluate the effectiveness of social media for marketing agribusinesses.
- 3.3 Crucial business information on selected crops/products compiled into compendia of agribusiness information by industry experts working with private and Government sectors.
- 3.4 Undertake short course training in agribusiness and farmer organisation business models for farmer associations, extension officers and lead farmers/out-growers – one week course in Fiji and Vanuatu for 15-20 participants.
- 3.5 Adapt, deliver and evaluate the Agribusiness Master Class courses in Fiji.
- 3.6 Provide technical and supervisory support to Masters research projects in Agribusiness at USP/USC and other partner institutions.

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## 5 Methodology

### Research location

In the initial phase of PARDI-2 (2017 to 2019), the project undertook research to document and support sustainable agribusiness development in Fiji, Vanuatu and Tonga. In the second phase the project (post mid-term review [2020 to 2022]) project activities were limited to Fiji and to a lesser extent Vanuatu. This retraction in the country engagement sought to enable a more focused approach and greater attention on the impact pathways<sup>13</sup>.

### Overview

The key agribusiness research issues and questions, defined through external review and consultation with stakeholders, are as follows:

1. How can agribusiness development be more inclusive and sustainable (in the economic, environmental and social senses) both for businesses and Pacific islander livelihoods?
2. How can Pacific agribusinesses improve market knowledge and marketing efforts to access higher value and more consistent markets?
3. How can the public sector, donors and the project facilitate agribusinesses and their primary producer network overcome barriers in identifying and linking to emerging market opportunities in a way that is lasting, inclusive, profitable and scalable?

Working with existing agribusinesses and value chains, the approach to achieve project objectives involved researching, identifying and documenting critical elements of agribusiness success in the Pacific islands, and developing tools and knowledge for identifying successful and inclusive agribusiness development opportunities (Objectives 1 and 2). Incorporating lessons learned in PARDI-1, this research was utilised throughout the project to support value chain and enterprise strengthening and capacity development, grounded in the reality of what works in the Pacific context.

Value chain analyses identified priority products, enterprises and associations, which were then supported with value chain strengthening interventions (Objective 2). This work also sought to complement ACIAR's existing research projects by providing new knowledge and tools in support of agribusiness development opportunities.

Smallholders, local farmer organisations and women's groups, were engaged and strengthened through agribusiness partnerships, linking them to market opportunities that will yield benefits (Objective 3).

Agribusinesses and smallholder farmers do not always have access to critical information to support their business development. The project engaged industry experts working with private and Government sectors (see Table below) to compile crucial business information for selected priority crops/products and value chains into publicly accessible briefs, and knowledge products to inform and catalyse agribusiness development. Methods of low-cost enterprise marketing such as social media and simple websites, were reviewed and evaluated to identify successful approaches for small agribusinesses. The lack of agribusiness capacity, and associated R&D capacity, was addressed through standard capacity building approaches: principally through short-duration trainings, including in-country and virtual workshops and Agribusiness Master Classes, and also through targeted mentoring and coaching programs for selected enterprises (Objective 3).

**Table 1: PARDI 2 collaborators**

Academic institutions	Industry organisations / bodies
University of the Sunshine Coast	Pacific Island Famers Organisation Network (PIFON)
Southern Cross University	Nature's Way Cooperative
University of Adelaide	Fiji Beekeepers Association

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<sup>13</sup>This change also responded to the mid-term review recommendations.

University of the South Pacific	Tilapia Fiji Association
<b>Local organisations</b>	Vanuatu Tourism Association
YHer / YGAP Pacific Islands	Fiji Hotel and Tourism Association
Pacific Women	South Pacific Tourism Organisation (SPTO)
Pacific Connect	Fiji Traveller
Pacific Community (SPC)	Food Inspired
POETCom	HACCP Australia
Regenerative Vanua	
<b>Government Bodies</b>	
Min of Fisheries, Fiji	Tourism Fiji
Min of Agriculture, Fiji	Vanuatu Agritourism Office
Min of Commerce, Trade, Tourism and Transport, Fiji	Vanuatu Department of Tourism
Min of Tourism, Trade, Commerce and Ni Vanuatu Business	ACIAR

### **Objective 1: Develop tools, products and knowledge for researchers and agribusinesses identifying successful and inclusive agribusiness development opportunities**

Using standard social science qualitative and quantitative research methodologies a small team of social scientists, including socio-economists engaged with stakeholders (i.e. government, private sector, communities and NGOs) to evaluate and refine indicators and develop a framework and tools for identifying and prioritising potential agribusiness development opportunities and sustainable livelihood outcomes. Using the results of *SRA AGB/2015/014 (Evaluation of livelihood impacts from agribusiness development opportunities in the Pacific)* the sustainable livelihoods approach underpins the identification of key criteria and indicators for the measurement of these attributes; with specific application to understanding the livelihood benefits of agribusiness development in rural Pacific islands communities. This research included identifying and adapting criteria for women's empowerment opportunities into agribusiness and livelihood prioritisation frameworks.

The characterisation of the risk environment and the development of risk assessment tools were explored using the Risk and Options Assessment for Decision-making (ROAD) analytical approach. ROAD is an iterative and adaptive analytical process that considers risks, opportunities and the decisions that improve outcomes for developing countries, particularly in the Asia-Pacific region<sup>14</sup>. The most common risks targeted were environmental (particularly short-onset events) and socio-economic-political ones (particularly those affecting production and market chains in-country or beyond). The ROAD tool was used in the selected case studies of risks to Pacific agribusiness and in development of a risk minimisation and mitigation framework and strategies (Activity 1.3).

Pacific agribusinesses face unique challenges and constraints as a result of the environmental context, business enabling environment and the way in which cultural norms influence enterprise development. Through a participatory, collaborative research approach the PARDI-2 sought to identify the factors needed for successful, durable agribusinesses in PICs, identifying and engaging in case studies of successful agribusinesses and lead farmers. This research deepened understanding of the specific success factors of Pacific agribusinesses, with findings incorporated in the design of appropriate interventions to strengthen value chains and enterprises (Objective 2). This research also included considerations for improving participation rates among females and youth in Pacific islands agribusiness.

### **Objective 2: Identify and enable value chains for selected Pacific agribusinesses, sectors and products**

Selected value chain analyses were conducted on case studies of sandalwood (Fiji), honey (Fiji), coconut syrup (Fiji), agritourism experiences (Fiji and Vanuatu), and tilapia (Fiji) enterprises (see table below) to identify interventions that address impediments to efficiency and competitiveness of

<sup>14</sup> The ROAD analytical tool has been developed by Professor Quentin Grafton and colleagues at ANU

current value chains, using standard methodologies and approaches for value chain analyses. These included: data collection and research, value chain mapping, analysis of opportunities and constraints, followed by the vetting of findings with stakeholders and recommendations for future actions, including identification and elaboration of the most critically important researchable constraints to product and market development.

<b>Case studies of successful businesses/ products</b>	
<b>Fiji</b>	<b>Vanuatu</b>
Marama Niu	Forney Enterprises/Klin Kava
Agrana Fruit (Fiji) Ltd	Kava House
Civa (Fiji) Pearls Ltd	Lapita Café Ltd
Kaiming Agro Ltd	South Pacific Sandalwood Ltd
Natures Way Cooperative Ltd	Venui Vanilla
Pacific Reforestation (Fiji) Ltd	
South Sea Orchids	
Tutu Rural Training Center	
<b>Tonga</b>	
Nishi Trading Co Ltd	
Filipe Filihia	
Tupu'aga Coffee	

The technical information acquired for the value chain studies included a desk-top study to obtain published, unpublished and grey literature data on production/ exports/ imports, including prices and volumes at different stages in the chain; the main actors and their contacts, consumption reports, local/ national and international trade data. Following this, primary research involved semi-structured questionnaire/interviews with actors in the value chain and well as other key informants in agribusiness, academia/research and Government. Some of the research also included focus group discussions to explore concepts, generate ideas, determine differences in opinion between groups and triangulate with other data collection methods.

The agribusiness partnerships involved promising products already identified in ACIAR's Pacific R&D projects. These include agritourism experiences, high value vegetables and fruits (NWC), kava (South Pacific Elixirs), tilapia (Tilapia Fiji Association), and honey (Fiji Beekeeper Association) from Fiji. Priority products and chains identified using the tools and framework developed in Objective 1, were selected. Matters for value chain investigation included identification of commercially attractive and employment-generating options for value-adding, particularly opportunities to increase female and youth participation in agribusiness.

A basic principle in addressing gender inequality in agricultural development is the enabling of female input into decision making at all levels. The research methodologies employed in this objective included specific consideration given to potential empowerment opportunities for women in value chain and market exploration and development. PARADI-2's participatory methodologies recognise the importance of the formation of women's participatory groups such as women's leadership teams to facilitate dissemination of information from the project directly to women.

In the second phase of the project, we focused on a selected number of enterprises aligned to three agribusiness sectors (i.e. agritourism, tilapia, honey). We worked with the enterprises, including providing technical and mentoring support, capacity building (that also incorporated industry associations), undertook commercial demonstrations, promotion events, and provided targeted infrastructure assistance. We worked in partnership with 10 Fiji and 27 Vanuatu agritourism enterprises (as well as Vanuatu Agritourism Association), and enterprises and farmers involved with the Tilapia Fiji Association and Fiji Beekeepers Association. We undertook rapid "walk the chain" investigation of two sectors (honey and tilapia); undertook key stakeholder interviews; observed product and market channel indicators; assessed current market performance conditions and impediments; and assessed potential honey and tilapia partners, value chain constraints and future research funding opportunities that can directly improve the livelihoods of Fijians. We sought insights

into strategic and development opportunities and the potential of engaging and directing future agribusiness interventions with Industry Associations.

**Table 3: Businesses / farmers mentored by the PARDI 2 team**

<b>Agritourism Product Development and Business Mentoring Support Program 2021 / 2022</b>	
<i>Agritourism Fiji</i>	<i>Agritourism Vanuatu</i>
Nabogiono Farm	ACTIV/AELEAN Chocolate
Vee Organic Garden	Aore Island Coffee tour
Mudrenicagi Estate	Birihia Guest House by the Sea
FaRmily Gardens	Blue Cave Tour
Bula Mushrooms	Eden on the Rivers & Yoku Farm Tours
Waitika Farm	Lapita Café
Drevula Heights Villas	Nusumetu Eco Tour
Spices of Fiji Nature Farm and Tours	Tanna Coffee Tour
Waimakare Forest Farm	Tanna Evergreen Farm Stay
Bulacunno Farm	Charles Godden Pilgrimage Tours
Cegu Valley Farm	Dori Lagoon Bungalow
Namosi Eco Resort	Vorganic
Paradise Taveuni	Hanare Kastom Village
Bula Coffee	Jungle Oasis
<i>Honey Fiji</i>	Jungle Zipline
Cegu Valley Farm	Loru Conservation and Tour
Mudrenicagi Estate	Lonwolwol Lakeside Bungalows and Tours
Cantilever Group / Nature's Finest	Malog Bungalows
K Kumars	Pui Lodge and Tours
Al-Shifa	Rah Paradise Bungalows
<i>Tilapia Fiji farmers</i>	Sarah's Botanical Garden
Aslam Ali	Nasi Tuan Taloa Coffee Tours
Safiya	Tames Bungalows
Sanim Ali	The Kava House Vanuatu
Jona Dilo	The Secret Garden
Master Eneri	Vanuatu Lava Farm Stay and Tours
Laisiasa Cavakiqali	Village De Santo Community Garden Project

In our support of agritourism<sup>15</sup>, we examined the relationships between agriculture and tourism, identifying and exploring the most promising options for the agriculture sector to provide inputs into the tourist food sector, agritourism opportunities and increased carry-on exports from visitors (value-added products from agriculture, forestry and fisheries). The project helped support the resilience of agribusinesses linked to the tourism market by identifying new market opportunities within the domestic and/or export market. While we adopted a consistent approach in terms of Fiji and Vanuatu agritourism support, in Vanuatu this was a greater emphasis (and associated success) on partnering with agritourism sector and associated stakeholders to improve and enhance the wider policy environment.

In establishing and developing a partnership with Tilapia Fiji Association (TFA) we undertook a tilapia agribusiness pilot to "demonstrate" new channels to market for farmed tilapia in Fiji. This sought to show, in practice, how low market penetration of farmed tilapia can be addressed in a new and a different approach. In this case the prime output would be sales via permanent promotion of fresh Tilapia to consumers shopping regularly for seafood at the Lautoka Municipal market precinct.

We collaborated in establishing a new value chain with lead farmers, private sector operators and organised channel partners and developed new ways of working together, learning by doing, and generating visible results from consumer sales on the ground. Selection of the lead farmers was through a process of interviews with TFA members and baseline data collected on existing operations and sales patterns to compare before and after participation scenarios. We captured and disseminated knowledge about the supply and promotion of freshwater species and coached and

<sup>15</sup> COVID-19 has significantly impacted opportunities within the agritourism industries in the Pacific.

mentored where there were gaps in capability and capacity. We collected information about what will drive consumers' purchasing behaviour and consumption, providing important insights to future sales and marketing planning for TFA members. Collaboration and sharing mitigates risk (and cost) of failure for participants, while still providing the opportunity for learning for all stakeholders from a live experience.

The project team worked closely with TFA farm members to facilitate weekly supply volumes to promote and create weekly sales patterns with market shoppers. Product specifications and supply volumes were established with farmers using anticipated retail selling prices. Farmers were paid directly for fish at an affordable price point that encourages the farmer to continue investing in additional production cycles during the 12-week promotional period, and continue trading after the pilot. Hotel, restaurant and café restaurateurs were encouraged to visit and observe fish quality and turnover.

### **Objective 3: Develop relevant agribusiness capacity building that supports enterprise sustainability.**

Facilitating peer-to-peer sharing and learning experiences across enterprises is key to understanding and enabling agribusiness success. This involved producing agribusiness manuals, start-up guides, and the compilation of information deemed critical for conducting a successful agribusiness ventures. Further agribusiness support information was also produced. For example, information on product development that incorporated secondary research and/or desk-top studies, value chain information, market studies, Strengths Weaknesses Opportunities Threats (SWOT) analyses, and model business case scenarios/plans and bibliographies.

Initially project information and knowledge products were hosted on a dedicated PARDI-2 website. In early 2022, this website was discontinued. Information and resource material already develop and pending were further curated and alternatively hosted on a series of open-access industry peak body and technical information websites (Pacific Island Farmer Organisation Network [PIFON<sup>16</sup>], Fiji Beekeepers Association, South Pacific Tourism Organisation, and Pacific Agricultural Information System [PAIS]). Our intent was to ensure information remained accessibility to industry stakeholders (and easy to source) post the project end-date.

Agribusiness Master Classes delivered by the University of Adelaide aimed to provide more detailed capacity building support, including a distillation of market research, value chain analyses and decision making. These courses were adapted from existing course content (developed for Asia), tailored for Pacific islands and incorporated project-generated case studies. While the initial agribusiness master class was delivered in-country (in Fiji), subsequent classes were delayed due to COVID-19 and then further refined to target in-country and face-to-face mentor and technical support of businesses aligned to objective 2.4 (tilapia) and objective 2.5 (honey).

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<sup>16</sup> PIFON provides an important platform for training and knowledge products to be more widely distributed to farmer organisations across the South Pacific region, and their member agribusinesses.

## 6 Achievements against activities and outputs/milestones

**Objective 1: Develop tools, products and knowledge for researchers and agribusinesses identifying successful and inclusive agribusiness development opportunities.**

No.	Activity	Outputs/ milestones	Completion date	Comments
1.1	Evaluate and refine indicators and a framework for identifying and prioritising potential agribusiness development opportunities and livelihood outcomes	1. Report and journal paper documenting methods of agribusiness assessment process and its links to livelihood improvement; 2. a framework developed for measuring livelihood quality; 3. a tool for measuring livelihood improvement.	1. Initial scoping report Nov 2017 2. Guidance document, tool development Nov 2018 3. Simplified version developed June 2020 Paper or report Dec 2020	<p><b>[Completed]</b></p> <p>A framework for identifying agribusiness development opportunities and measuring livelihood quality was developed and documented in a report: <a href="#">An assessment framework for agribusiness interventions</a></p> <p><a href="#">A tool for measuring livelihood improvement</a> was developed as a user-friendly checklist, useful in applying in the design phase of projects as a rapid means of appraising the economic, socio-economic and environmental impacts of proposed research. It is designed to flag any areas of concern that may impact the success and sustainability of research interventions.</p> <p>The <a href="#">assessment tool guidance document</a> was completed</p> <p>The above documents are published as resources on the PIFON website.</p> <p>The proposed academic publication was not completed due to resignation of the senior author.</p>



1.2	Case studies of 5-7 successful agribusiness/products in each of Fiji, Tonga and Vanuatu (including at least one female-led in each country) to evaluate business, economic and livelihood impacts, and identify crucial factors associated with success as well as key constraints to further growth and impacts of current policies and regulations.	1. Report and / journal paper. 2. Case studies that identify factors associated with, and conditions needed, for successful and durable agribusiness, especially those led by women, in the Pacific islands.	Report - July 2019, updated version in April 2020  Briefs and agribusiness profiles - Dec 2020	<p><b>[Partially Completed]</b><sup>17</sup></p> <p>Two agritourism reports on the status of the industries in Fiji and Vanuatu [2023] have been produced.</p> <p>15 agribusiness case studies have been completed (Agrana Fruit [Fiji] Ltd, Civa [Fiji] Pearls Ltd, Kaiming Agro Ltd [Fiji], Natures Way Cooperative Ltd [Fiji], Pacific Reforestation [Fiji] Ltd, South Sea Orchids [Fiji], Tutu Rural Training Centre [Fiji], Nishi Trading Co Ltd [Tonga], Filipe Filihia [Tonga], Tupu'aga Coffee [Tonga], Forney Enterprises/Klin Kava [Vanuatu], Kava House [Vanuatu], Lapita Café Ltd [Vanuatu], South Pacific Sandalwood Ltd [Vanuatu], Venui Vanilla [Vanuatu]).</p> <p>Based on these studies, one report "<a href="#">Pacific Agribusiness - Learning from survivors! A synthesis of factors that underpin the success and survival of agribusinesses in the Pacific</a>" published on the PIFON website and distributed to PIFON members. It has also been used in presentations given to agribusinesses, researchers and partners throughout the duration of the project to highlight success factors for sustainable agribusinesses.</p> <p>The proposed academic publication was not completed due to resignation of the senior author.</p>
1.3	A review and case studies of risks to Pacific agribusiness and develop a risk minimisation and mitigation framework and strategies (including identifying factors which inhibit women's participation in agribusiness)	Report documenting a framework for risk management, its assessment and minimization for Pacific islands agribusinesses	Dec, 2018	<p><b>[Completed]</b></p> <p>Risks to Pacific agribusinesses has been documented based on case study interviews and allied research.</p> <p>Report prepared by ACIAR/PARD12 agribusiness intern, Manoj Kumar on "<a href="#">Understanding and mitigating risks for Pacific Islands Agribusiness</a>" and published in Australian Agribusiness Perspectives journal in 2019</p>

<sup>17</sup> This objective was amended following the mid-term review, with the project alternatively focussing on more participatory activities with a tangible impact pathway.

1.4	An analysis of barriers and opportunities to make value chains and agribusiness and their benefits more sustainable and inclusive in the Pacific Islands	Report documenting assessment of different options — involving case studies and a review — for improving female participation and youth participation, and enhanced environmental sustainability in agribusiness in the Pacific islands	Sep 2021	<p><b>[Partially Completed]</b><sup>18</sup></p> <p>The proposed report on options improving female participation and youth participation and enhanced environmental sustainability in agribusiness in the Pacific islands, has not been completed. This activity was ceased in response to a mid-term review recommendation.</p> <p>However, a paper, titled: <a href="#">Women and the business of Aquaculture: a case for women tilapia farmers in Fiji</a>, has been published in the <i>Women in Fisheries Bulletin</i> (July 2021)</p>
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PC = partner country, A = Australia

**Objective 2: Identify and enable value chains for selected Pacific agribusinesses, sectors and products.**

No.	Activity	Outputs/ milestones	Completion date	Comments
2.1	Identify and prioritize products from Pacific ACIAR projects where participatory agribusiness research could realise significant market and livelihood potential	<ol style="list-style-type: none"> <li>1. Prioritized listing of products (and projects) for PARDI 2 agribusiness R&amp;D support.</li> <li>2. Revision of prioritised agribusinesses, products and sectors</li> </ol>	<p>July, 2017</p> <p>May 2021</p>	<p><b>[Completed]</b></p> <p>List of prioritised products / projects has been compiled in 2017 which includes: breadfruit (F,T) cocoa – F,V) floriculture (F), ginger (F), honey (F), kava (F,T,V), kumala (F,V,T). mango (F), pandanus (F,T), sandalwood (F,V,T) and seaweed (T)</p> <p>Revision of prioritised products / projects was undertaken in April 2021 based on an agribusiness review, with a focus on: honey (F); agritourism (F, V); and tilapia (F).</p>

<sup>18</sup> This objective was amended following the mid-term review, with the project alternatively focussing on more participatory activities with a tangible impact pathway.

No.	Activity	Outputs/ milestones	Completion date	Comments
2.2	Conduct participatory value chain analyses for at least five products identifying weaknesses and bottlenecks in the chain(s), researchable constraints, and intervention options for market development	Reports and journal papers of value chain case studies for at least five priority products	1- June 2018 2- May 2019 3- Oct 2019 4- June 2020 5- Dec 2020	<p><b>[Completed]</b></p> <p>Value chain studies for sandalwood, agritourism businesses, honey and traditional <a href="#">coconut syrup</a> have been completed and an agriculture value chain guide produced and uploaded onto the PIFON website. The guide includes value chain case studies of Copra, coconut cream, cocoa, coconuts, pineapple, casava chips, and fruit juice.</p> <p>Value chain studies for honey and sandalwood in Fiji were conducted (in collaboration with LS/2017/100 and FST/2016/158, respectively). <a href="#">The Honey production value chain analysis</a> has been uploaded onto PIFON website and the Fiji Beekeepers Association website as a resource. <a href="#">The Sandalwood value chain study</a> was written up as a paper and published in <a href="#">Australian Forestry</a> journal in 2020. This paper and other sandalwood articles are also posted on the PIFON website as a resource.</p> <p>A global market study for sandalwood has been prepared. The study was presented at the ACIAR-sponsored Sandalwood Regional Forum in Vanuatu (11-13 Nov 2019) and was published as Proceedings and also in a special issue of <a href="#">Australian Forestry</a> Journal (Oct 2020)</p> <p>Journal paper has been produced: <a href="#">Oil Yield and composition of young Santalum yasi in Fiji and Tonga (2020)</a>, <a href="#">Australian Forestry</a></p> <p>Journal paper: <a href="#">Domestication provides the key to conservation of Santalum yasi - a threatened Pacific sandalwood</a> (Nov 2020) <a href="#">Australian Forestry</a></p> <p>Report, titled: <a href="#">Agritourism Experiences: A Situation Analysis</a>, on agritourism experiences in the PARDI-2 focus countries was prepared and posted on PIFON website as a resource for farmers and enterprises. Hard copies were printed and distributed by PIFON, including to participants of the Fiji Talanoa 2 workshop in Oct 2020.</p> <p>PARDI-2 (Marita Manley and Lavinia Kaumaitotoya) provided technical inputs into the revised 2<sup>nd</sup> version of the <a href="#">Agricultural Value Chain Guide for the Pacific Islands</a> which will continue to be used for training. The original version of the value chain guide has been utilised by an estimated 2000 practitioners across nine Pacific Island Countries, including 120 staff from the Fiji Ministry of Agriculture Extension Division.</p>

2.3 Support and develop the agritourism sector in Fiji and Vanuatu				
No.	Activity	Outputs/ milestones	Completion date	Comments
2.3.1	Mainstream agritourism within the Vanuatu Sustainable Tourism Strategy and the Fiji Sustainable Tourism Strategy	Vanuatu and Fiji Sustainable Tourism Strategies developed	June 2021 (Vanuatu)  Dec 2021 (Fiji)	<p><b>[Completed]</b></p> <p>As part of the Vanuatu Sustainable Tourism Policy, the project team developed the <a href="#">Vanuatu Sustainable Tourism Policy 2019-2030</a> and the Food Tourism and Agritourism Initiative (<i>Produktif Turism Blong Yumi</i>), which was incorporated into the <a href="#">Vanuatu Sustainable Tourism Strategy 2021-25 themes 3 and 4</a> to develop and promote Agritourism businesses and raise the profile of traditional local cuisine and traditional farming practices, while still supporting the important initiative of supplying local food to resorts and restaurants. The <a href="#">VSTS was launched in Feb 2021</a></p> <p>Fiji Govt is still in the early stages of developing its Sustainable Tourism Strategy, with PARDI-2 participated on the steering committee. The Ministry of Commerce, Trade, Tourism and Transport and partners (such as IFC) regularly consult the PARDI2 team on mainstream tourism development. We have provided relevant information, outputs and examples from Vanuatu, as inputs to the development of the strategy.</p>

No.	Activity	Outputs/ milestones	Completion date	Comments
2.3.2	Support the establishment of a Vanuatu and Fiji agritourism association, to better coordinate and empower this emerging sector	Industry associations established in both Fiji and Vanuatu.	April 2021 (Vanuatu)  Oct 2021 (Fiji)	<p><b>[Partially completed]</b></p> <p><b>Vanuatu.</b> The Vanuatu Agritourism Association [VAA] has been established<sup>19</sup> including ToR, Application for membership, Code of Ethics, a <a href="#">Facebook</a> page and placement of a fulltime staff member to support the Association funded by the Vanuatu Department of Tourism.</p> <p>Mentoring support for VAA is now provided by the newly-formed Not for Profit organisation “Regenerative Vanua” and supported by the National Regenerative Agritourism Coordinator. Regenerative Vanua received assistance from the ACIAR project LS/2020/155 “Development of a third party verified voluntary sustainable certification program” and the Vanuatu Bureau of Standards to develop Regenerative Vanua standards and certification for the Vanuatu Agritourism Association. The EDF 11 project is now providing infrastructure support to the VAA members to support their agritourism businesses.</p> <p><b>Fiji.</b> Three virtual meetings have been held to progress the establishment of the Fiji Agritourism Association. COVID-19 delayed the selection of an executive body and applying for registration. Lessons from other industry association registration processes have been shared with members. Executive Members have decided to progress formalisation by approaching an established industry association (Duavata Sustainable Tourism Collective), to form an agritourism chapter as an interim step to registration as a separate association.</p>

<sup>19</sup>Vanuatu Agritourism Association Facebook <https://www.facebook.com/groups/3851794411542010/>

2.3.3	Develop & deliver a capacity building program with key stakeholders (i.e., product development tools, training, start-up guides, development of marketing content) to support smallholder agribusiness & communities in the development of Agritourism experiences.	At least 3 training workshops (2 in Fiji and one in Vanuatu) completed and reports produced for each.	May 2021	<p><b>[Completed]</b></p> <p>Agritourism Experiences Talanoa 1 in Fiji Feb 2019 – training for over 80 operators and farmers. <a href="#">The summary report</a>, along with <a href="#">an article/blog</a>, and uploaded to the PIFON website. Workshop report provided at Talanoa 2 Agritourism Experiences, and disseminated to SPTO, MCTTT, Dept of Tourism (USP).</p> <p>Agritourism Experiences Talanoa 2 for Fiji – 28-29 October 2020 - Workshop on product development preparation and marketing of agritourism experiences in a COVID19 world. 58 participants shared experiences, ideas, successes and barriers to agritourism experiences in Fiji, as well as strategies on post COVID requirements to be visitor ready and product development for sustainable agritourism experience. The <a href="#">Talanoa 2 workshop report 2020</a> and uploaded to the PIFON website plus disseminated to SPTO, MCTTT, Dept of Tourism (USP).</p> <p>In collaboration with POETCOM, SPC and SPTO, we facilitated the Agritourism Experiences Webinar series 2021 that brought together agritourism experienced practitioners, enthusiasts, and policy makers from around the Pacific for knowledge sharing, networking and capacity building in a series of 5 webinars. Series 1, 3 &amp; 5 included enterprises PARDI2 had worked with in Fiji &amp; Vanuatu. Series 2 &amp; 4 showcased organic community partners.</p> <p>Training workshop – Vanuatu Agritourism Business Support Week 19 – 23 April 2021. Over 40 people per day (including reps from 30 selected enterprises) undertook training on: business support; product development, marketing and branding; quality health and safety; business preparation and survival; and an agritourism round table. <a href="#">The Vanuatu Agritourism Business Support Week</a> summary report outlines outcomes of the workshop. The report was uploaded on the PIFON website and distributed to Vanuatu Agritourism Association and Vanuatu Tourism Office, SPTO, Dept of Tourism (USP), Fiji MCTTT and supporting organisations.</p> <p>Agritourism product development assessments and reports / recommendations for 10 Fiji enterprises: Bula Coffee; Drevula Heights; Nabogiono Farms &amp; Green Lodge; Spices of Fiji Nature Farm and Tours; Waitika Farm; Bula Mushrooms; FaRmily Gardens; Mudrenicagi Estates; Vee's Organic Farm; and Waimakare Forest Farm.</p> <p>These are designed for businesses to self-assess their viability for agribusiness / agritourism. The completed individual checklists were provided to each business. From these enterprises, 5 were selected for intensive mentoring in the PARDI 2 Agritourism</p>
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		<p><a href="#">Product Development checklist</a> created for agritourism enterprises.</p> <p><a href="#">Agritourism Start-up guide for Vanuatu and also Fiji</a></p>	<p>June 2021</p>	<p>Support Programme. Vee Organic farm is now open.</p> <p><a href="#">Report Agritourism Product Development Fiji (Nov 2020)</a> outlines the assessment, analysis and product development recommendations for 5 selected Fiji enterprises.</p> <p>Checklists for 29 Vanuatu enterprises designed to enable businesses to self-assess their viability for agribusiness / agritourism. The completed individual checklists were provided to each business. Each business underwent assessment, analysis and intensive training as outlined in the <a href="#">Agritourism Product Development Report -Vanuatu</a>.</p> <p>The report disseminated to the Vanuatu Department of Tourism and PIFON.</p> <p><a href="#">Agritourism start up guide</a> for the Pacific was developed in consultation with South Pacific Tourism Organisation (SPTO). The guide is a resource for agribusinesses / prospective agritourism enterprises (uploaded to PIFON and SPTO websites). The guide has also been shared with Cohort of the Pacific Islands Tourism Professional Fellows Program comprising 32 Fellows from 9 Pacific Island countries.</p> <p>The start-up guide has been adapted through the ACIAR SRA project LS/2020/155 to incorporate standards and criteria for the agritourism in Vanuatu and distributed to members of the Vanuatu Agritourism Association.</p>
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2.3	Support and develop the agritourism sector in Fiji and Vanuatu			
No.	Activity	Outputs/ milestones	Completion date	Comments
2.3.4	Pilot the capacity building program at the enterprise-level in Fiji and Vanuatu (targeting 5 selected agritourism operators) to demonstrate the support required to launch successful agritourism experience providers.	<p>Ongoing mentoring support documented.</p> <p>Case studies for each enterprise that outline lessons learnt in providing product development and mentoring support</p> <p>Two new tours launched in Fiji and/or three improved tours launched in Vanuatu</p>	March 2022	<p><b>[Completed]</b></p> <p>Building on the market intelligence for agritourism experiences, support was provided through mentoring of two agribusinesses in Fiji (Bulaccino Farm and Waitika Farm). Initial product development advice was also provided to Waimakare Forest Farm (Fiji).</p> <p>A 'Getting Market Ready' mentoring / Agritourism Support Programme was rolled out in Fiji targeting 5 enterprises from August 2021 - Feb 2022. The selected enterprises included Bula Coffee; Bulaccino Farm; Cegu Valley Farm; Namosi Eco Retreat and Paradise Taveuni. The <a href="#">PARDI 2 Agritourism Support Program Case Studies report</a> of these enterprises are on the PIFON website and distributed to SPTO, MCTTT, Dept of Tourism (USP).</p> <p><a href="#">Bula Coffee's Farm Tours</a> launched in April 2022. They <a href="#">presented to media</a> at the Fijian Tourism expo leading to extensive <a href="#">domestic media, interviews</a> and <a href="#">international media coverage</a>. A video produced by ACIAR and Fiji Tourism for the Fiji Tourism website and to be aired on Fiji Airways. <a href="#">ACIAR also published a blog</a> about the Agritourism programme.</p> <p><a href="#">Bulaccino Farm</a> tour launched for groups in early 2022</p> <p><a href="#">Namosi Eco Retreat</a> and <a href="#">Paradise Taveuni</a> tours were available for guests staying in their accommodation throughout 2022</p> <p>Cegu Valley Farm has developed an interpretation trail around their property and opens in late 2022.</p> <p>In collaboration with the Vanuatu agritourism office, product development work and market readiness mentoring were provided for 27 agritourism operators from the Vanuatu Agritourism Association in all 6 provinces.</p> <p>All 27 operators involved in the Vanuatu Agritourism Product Development and Business Support Program have received Tourism permits and Business licenses and have operational agritourism experiences.</p> <p>VTO has since been working with these operators to further promote them domestically and eventually to the</p>



2.3	Support and develop the agritourism sector in Fiji and Vanuatu			
No.	Activity	Outputs/ milestones	Completion date	Comments
				<p>international market. Over half of these operators have started up new farming or value adding components to their products. <a href="#">The report</a> of this product development and mentoring support was distributed to the Vanuatu Department of Tourism and PIFON.</p> <p>Agritourism awareness workshops in each Vanuatu Province were conducted as part of the Food Tourism and Agritourism Initiative (Produktif Turism Blong Yumi), involving cooking demonstrations in communities and working with agritourism operators to increase the use of local produce and quality in their tourism offerings</p> <p><a href="#">A Report outlining the Food Tourism and Agritourism Initiative</a> is available on the PIFON website and was distributed to the Vanuatu Department of Tourism, and the Vanuatu Agritourism Association.</p>

2.4 Support and develop Tilapia Fiji				
No.	Activity	Outputs / milestones	Completion date	Comments
2.4.1	Develop research program in partnership with Govt and collaborators SPC, Min of Fisheries and Tilapia Fiji (association of farmers)	<p>Report (situational analysis) highlighting sector opportunities</p> <p>Agreed list of issues that sector needs to address with partner expertise identified</p>	Apr 2021	<p><b>[Completed]</b></p> <p><a href="#">Market trials situational analysis</a> has been conducted to determine factors influencing tilapia marketing in the Lautoka and Nadi periphery, Fiji.</p> <p>A list of Issues and research plan developed. Review of plan and discussions with stakeholders resulted in plan revision to better align with recently reported prior research outputs and to accommodate logistical restrictions (i.e. travel and production of fish)</p> <p>Signed letter between Tilapia Fiji Association (TFA) and PARDI2 for market research support.</p> <p><b>Supplementary activities</b> Tilapia Fiji with PARDI-2 met the Fiji Permanent Secretary Fisheries (Oct 2021) and Principal Fisheries Officer Aquaculture (April 2022) from Min. of Fisheries. Discussions resulted in an interest to sign an MOU with Tilapia Fiji (TFA). Executive team of TFA have asked for a Strategic Plan first be drafted to assist them with priority area to be included in the MOU with MoF.</p> <p>PARDI-2 and PIFON facilitated and supported a “Tilapia Farmers Have Their Say” event<sup>20</sup> <a href="#">The report</a> including potential agribusiness research needs was published on the PIFON website and disseminated to 25 participants from USP, Min of Fisheries and Tilapia Fiji during a Training Workshop on “Tilapia Value Chain Awareness and Analysis” held in Nadi (April 2022).</p>

<sup>20</sup> Event was further co-funded through assistance from the European Union and the International Fund for Agricultural Development (IFAD)

2.4	Support and develop Tilapia Fiji			
No.	Activity	Outputs / milestones	Completion date	Comments
2.4.2	Enterprise support activities targeting key stakeholders	<p>Completion of the Tilapia compendium including business planning tools for farmers</p> <p>Reports from the two demonstration projects (2.4.3) assessing impacts to the following stakeholders we have worked with:</p> <ul style="list-style-type: none"> <li>• TFA as the benefits in building the association</li> <li>• Impact Pacific as the facilitator wholesaler (middle man)</li> <li>• Farmers who have supplied fish for the 2 components and what have been the challenges and benefits</li> </ul>	<p>Feb 2022</p> <p>Jun 2022</p>	<p><b>[Completed]</b></p> <p>The <a href="#">Tilapia Compendium</a>, provides a useful resource for tilapia farmers (current and potential). It covers basics for tilapia farming, set up, understanding the market, business plan templates and tools, including business recommendations for growth over time and important contacts.</p> <p>This resource is available on the PIFON website and was also printed into a booklet and disseminated to 25 participants from USP, Min of Fisheries and Tilapia Fiji during a training workshop on “Understanding and Analysis of Tilapia Value Chain” held in Nadi (April 2022).</p> <p>Value Chain analysis booklets produced by PIFON were also distributed.</p> <p>Two reports from demonstration projects completed</p> <ol style="list-style-type: none"> <li>1. <a href="#">Live tilapia market demonstration pilot report</a></li> <li>2. <a href="#">Tilapia Efficacy Research for Food Service demonstration report</a></li> </ol>

2.4	Support and develop Tilapia Fiji			
No	Activity	Outputs / milestones	Completion date	Comments
2.4.3	Select 1 to 2 farmers to engage with the project and invest in market demonstration projects to assess three products (live fish, chilled fish on ice and frozen fillets)	<p>Partnership agreements</p> <p>Identify growers/suppliers with production plans for fish supply to demonstration projects. (Fish of required specification needed for market assessment studies).</p>	<p>June 2021</p> <p>Aug 2021</p> <p>Dec 2021</p>	<p><b>[Completed]</b></p> <p>Partnership agreements signed with 1. Laisiasa C. - Tilapia Fiji / coordinator of suppliers in the live fish and food service market demonstrations and 2. Food Inspired consultancy – assessing performance of tilapia in the HORECA market (4 eateries)</p> <p>Six farmers (western cluster) selected to participate in the weekly supply of tilapia during the live fish demonstration (12 weeks), completed May 2022. To date [as of Nov 2022] three farmers continue to make weekly to fortnightly sales in Lautoka, Nadi and as far as Suva.</p> <p>Database of live fish supply and suppliers</p> <p>Mentoring support to these farmers has been provided by Mr Laisiasa C. (a contracted consultant and also the Vice President of TFA), final documentation is included in the Live tilapia market demonstration pilot report (at 2.4.2 above).</p> <p>Also completed: An assessment of fish supply for food service: <i>Segregation, Documentation and Securing of Large Fish Supply for Food Service Research</i></p>

2.4 Support and develop Tilapia Fiji				
No.	Activity	Outputs/	No.	Activity
2.4.4	Market assessment to demonstrate new market channels and the development of linkages to private sector channel operators to trial both the distribution pathways and consumer product presentation and safety suitable to fish buyers and shoppers.	<p>Complete report on “Marine Fish Market Analysis to Determine Factors Influencing Tilapia Marketing” by Food Inspired (Fiji) Pte. Ltd.</p> <p>Completion of pilot market sales demonstration (Lautoka)</p> <p>Completion of 12-week market sales demonstration (Lautoka)</p> <p>Completion of food service/hospitality sector demonstration through collaboration with Food Inspired (Fiji) Pte. Ltd.</p>	<p>Sep 2021</p> <p>Dec 2021</p> <p>Apr 2022</p> <p>Aug 2022</p>	<p><b>[Completed]</b> Marine fish market analysis to determine factors influencing tilapia marketing report completed by Food Inspired and used to inform tilapia market demonstration research.</p> <p>Pilot market sale completed at Lautoka Carnival Ground as permitted by Lautoka City Council Office</p> <p><a href="#">Live Tilapia Market Demonstration in Lautoka, Fiji</a></p> <p><a href="#">Food service sector demonstration</a> completed with Food Inspired</p>
2.4.5	Industry event (partnering with PIFON) bringing together key stakeholders together, to report outputs of 2.4.3 at enterprise and farmer association level.	Progress report highlighting improvement targets set by Tilapia Fiji and partners	Aug 2022	<p><b>[Completed]</b></p> <p>PARDI 2 co-hosted with PIFON a Tilapia Talanoa Industry Forum August 25<sup>th</sup> 2022 at KayBee farm (TFA President’s farm). The event was attended by 24 people including stakeholders from TFA, SPC, Min of Fisheries and USP. The outcomes of this forum are reported in the Live Tilapia Market Demonstration Report (see 2.4.1 and 2.4.4 above).</p> <p>PowerPoint <a href="#">presentations of outputs of the Lautoka market demonstration</a> findings, including lessons learnt and Food Inspired’s presentation on the way forward were presented at the event.</p> <p>We also presented the progress made to date with the professionalisation of TFA.</p>

2.5	Develop and strengthen domestic honey industry in Fiji			
No.	Activity	Outputs/ milestones	Completion date	Comments
2.5.1	Establish a partnership with Min of Agriculture and established a joint work programme with sister ACIAR Project delivered by SCU to support Fiji Beekeepers Association and market development.	Joint work programme	April 2021	<b>[Completed]</b> A joint work program was developed with sister ACIAR Project <a href="#">LS/2014/42</a> and in partnership with Min of Agriculture.
2.5.2	Consumer and retailer analysis to summarise key consumer preferences and communicate recommendations to partners and honey industry stakeholders.	Report and publication on honey consumer preference and retailer analysis	April 2021	<b>[Completed]</b> Consumer preferences and challenges for honey retailers research carried out with over 174 respondents. The report <a href="#">Honey Consumer Preferences in Fiji</a> has been completed. Data on consumer preferences of honey in Fiji and challenges for honey retailers was <a href="#">presented</a> at <a href="#">FBA 2021 symposium</a> .
2.5.3	Develop customized marketing and branding guidelines (presentation form) and associated training material for FBA instructors, to support beekeepers seeking new market development opportunities.	Marketing and branding industry presentation and training educational materials (prepared presentations for beekeeping instructors) integrated within the FBA mentoring programme.	Oct 2021	<b>[Completed]</b> Results on marketing and branding research presented at Fiji Beekeeping Symposium in 2020, 2021 and 2022 (and distributed to + 100 attendees/members).  PowerPoint presentations for incorporation within a training tool kit have been provided to FBAs 11 beekeeping training instructors and 5 beekeeping extension officers at MoA. Content includes: <ol style="list-style-type: none"> <li>1. <a href="#">Honey Branding for trainers ppt</a></li> <li>2. <a href="#">Honey Packaging for trainers ppt</a></li> <li>3. <a href="#">Honey Labelling for trainers ppt</a></li> <li>4. <a href="#">Fiji Consumer Preferences of Honey ppt</a></li> </ol> In addition, PowerPoint presentations for <a href="#">Honey Branding, Marketing, Distribution and Packaging</a> and <a href="#">Honey Labelling</a> have been prepared and uploaded to the PIFON website, as well as distributed to Ministry of Agriculture extension staff and FBA.

2.5.4	Provide, on a needs basis, one-to-one mentoring for up to 5 enterprises including advice towards improving and monitoring current marketing and branding efforts.	Smallholder beekeeper branding guide and report documenting lessons and outcomes from the mentoring programme.	Nov 2022	<p><b>[Completed]</b></p> <p>A project contractual variation [post the mid-term review] removed mentoring activities. Instead, this activity was replaced with Engagement with HACCP Australia to deliver on Honey Code of Practice and Theo Simos to deliver on Fiji Honey Market and Distribution Report.</p> <ul style="list-style-type: none"> <li>• <a href="#">A smallholder guide to honey branding and marketing</a></li> <li>• Ppt presentation <a href="#">Branding for beekeepers</a>.</li> </ul> <p>Five beekeeping businesses completed one-to-one <a href="#">bee business and marketing mentoring program</a>.</p>
2.5.5	Provide, (on a needs basis) one-to-one mentoring for up to 5 commercial honey packers to develop quality assurance plans (e.g. HACCP).	5 honey quality assurance plans.	June 2022	<p><b>[Completed]</b></p> <p>A webinar on <a href="#">Honey Quality Assurance</a> has been implemented in association with HACCP Australia with &gt;35 participants. Mentorship programs diverted to contract agreement with HACCP Australia based in Fiji to expand this activity in partnership with ACIAR project <a href="#">LS/2014/42</a> to develop a Honey Code of Practice and support bee businesses to become HACCP endorsed or complete full HACCP certification with possible PHARMA+ and BLP co-funding.</p>
2.5.6	Phase 2 of honey marketing program (distribution channel analysis) and development of honey market report	Honey market and distribution report	November 2022	<p><b>[Completed]</b></p> <p>A Fiji Honey sector enterprises and market channel data report has been completed.</p>
2.5.7	Value added product workshop report and analysis. Develop capacity for trainers to provide and deliver training on processing beeswax and developing value added products	Report on impact and adoption of honey bee value added products. 2 value added product workshops utilising beeswax and honey	August 2022	<p><b>[Completed]</b></p> <p>Two value added bee product workshops (5 products, 30 participants) conducted - corresponding video developed - <a href="#">Loving Islands - Bee products training workshop</a>, as well as baseline evaluation data collected with a 6month follow up. A <a href="#">value added bee product workshops impact report was completed</a>. VAP and other honey activities reported on Green Pillars TV in Fiji <a href="#">here</a> and <a href="#">here</a><sup>21</sup></p>

<sup>21</sup> Hotlink not included to ensure compliance with ACIAR disclosure and privacy reporting provisions (i.e. personal details and business-sensitive information)

2.5.8	Develop and trial Fiji Smallholder Beekeepers Business Profitability and Accounting tool	Beekeepers Business Profitability and Accounting Spreadsheet	August 2022	<p><b>[Completed]</b>  <a href="#">Introductory</a> and <a href="#">Advanced</a> Beekeepers Business Profitability and Accounting Spreadsheet developed and under trial by Fiji MoA honey bee extension staff (n=5) and training instructors at FBA (n=12). Also provided to PNG beekeeping industry trainers at Eastern Highlands Province Beekeepers Association.</p>
2.5.9	Webinar series on honey branding, marketing, labelling and packaging and honey quality assurance	4 webinars and 4 videos on honey marketing and branding	July 2022	<p><b>[Completed]</b>  Webinars have been conducted with participation by over 130+ beekeepers based on P2 honey research including</p> <ol style="list-style-type: none"> <li>1. <a href="#">Honey Branding</a></li> <li>2. <a href="#">Honey Packaging</a></li> <li>3. <a href="#">Honey Labelling</a></li> <li>4. <a href="#">Honey Quality Assurance Webinar</a></li> </ol>



### Objective 3: Develop relevant agribusiness capacity building that supports agribusiness sustainability

No.	Activity	Outputs/ milestones	Completion date	Comments
3.1	Develop and maintain the PARDI 2 website with up-to-date information on the project and Pacific agribusiness	Functional PARDI 2 website linked to USC and ACIAR webpages. 6-monthly project newsletter.	Aug, 2017	<b>[Completed]</b> PARDI 2 developed and maintained a website until early 2022, where project information had been distributed. Resources and publication have now been transferred to peak industry body <a href="#">PIFON website</a> (to enable better post-project access) and outputs disseminated to relevant associations, enterprises and organisation websites. Publishable quality has been concurrently transferred to the <a href="#">Pacific Agriculture Information System</a> (PAIS) repository. PARDI 2 <a href="#">Facebook Page</a> remains active.
3.2	Evaluate the effectiveness of social media for marketing agribusinesses	Report documenting evaluation of effective social media platforms for supporting agribusiness marketing in Pacific islands	October 2021  July 2021	<b>[Completed]</b> A survey was undertaken with PIFON members during mid- 2019 AGM to examine current use of social media among their members as a way of receiving information. A follow up second survey was conducted (FO4ACP meet in Nadi).  Provided support to three final-year undergraduate students of USP (Lusiana Dulunaqio, Warren Tinohitu and Palu Soqoiwasa) to analyse the data and determine the effectiveness of social media in marketing tilapia (Facebook and Instagram). Students have presented their results and completed <a href="#">their report in</a> late July 2021. This report is available on the PIFON website.
3.3	Crucial business information on selected crops/products compiled into compendia of agribusiness information by industry experts (consultants) working with private and Government sectors	Publicly available agribusiness compendia for breadfruit, tilapia, priority crops/products	Dec 2021	<b>[Completed]</b> Agribusiness compendia for <a href="#">tilapia</a> , <a href="#">breadfruit</a> and <a href="#">bamboo</a> have been completed. The tilapia compendium has been distributed to Tilapia Fiji, Min Fisheries, SPC, FNU, USP, and Navuso College for use as a decision-making tool for smallholder tilapia farmers, which can also be used for future mentoring and training.  The <a href="#">breadfruit compendium</a> is housed as a resource on the PIFON website and also the <a href="#">Breadfruit People</a> websites.

No.	Activity	Outputs/ milestones	Completion date	Comments
				<p>A <a href="#">Fiji Breadfruit Manual</a> was developed in support of the breadfruit compendium and has been published. PARDI2 co-financed the production of this manual with Nature's Way Cooperative and PIFON. It is housed on the PIFON website and also the <a href="#">Breadfruit People</a> website.</p> <p><a href="#">The Bamboo compendium</a> is housed on the PIFON website and has been disseminated to the Fiji Ministry of Forestry, the Pacific Islands Development Forum; Fiji Bamboo Association, Fiji Bamboo Trust, Habitat for Humanity Fiji, SPC LRD, FAO Pacific Forestry network, and through the Savurua Botanical Gardens Facebook &amp; website (with followers in Pacific Islands).</p>
3.4	Undertake short course training in agribusiness and farmer organisation business models for farmer associations, extension officers and lead farmers/ outgrowers – one week course in Fiji and Vanuatu for 15-20 participants (working on ACIAR projects and in collaboration with PIFON network)	Training manuals and reports of short course training and evaluation	June 2021	<p><b>[Completed]</b> In collaboration with the Institute of Marine Resources (USP), an EU-funded project (PEUMP), and PIFON, we co-hosted a training Workshop on “Understanding and Analysis of Tilapia Value Chain” in Nadi (April 2022). This value chain training course was attended by 25 participants - tilapia farmers, extension officers and value chain researchers from USP.</p> <p>The planned event in Vanuatu was cancelled due to COVID19 and not included in the revised activities.</p>

No.	Activity	Outputs/ milestones	Completion date	Comments
3.5	Adapt, deliver and evaluate the Agribusiness Master Class (AMC) courses in Fiji and (2 x 1 week training modules with at least 12-20 participants drawn from academia, private and Government sectors, and ≥ 50% female)	AMCs and AMC course notes (lectures and practical sessions), including reports and evaluation of courses	Sept 2019  June 2022	<p><b>[Completed]</b></p> <p>One Agribusiness Masterclass was conducted, in Nadi Fiji 2019, (led by University of Adelaide). Training focused on value chains, markets, market research and participatory action research on participants' selected value chains. A <a href="#">Report of the outcomes</a> was completed and research activities initiated in the masterclass led to work on kava (digitisation), honey (consumer and retailer analysis) and agritourism (situation analysis).</p> <p>A proposed further two master classes in Vanuatu and Tonga were postponed (subsequently cancelled) due to COVID-19. Reflecting the refocus of project activities in Fiji and on the three industry sectors (tilapia, honey and tourism) the master class format was amended and alternatively provided to honey and tilapia sector, and delivered in partnership with the Fiji Beekeepers Association and Tilapia Fiji Association.<sup>22</sup> <a href="#">A report is attached.</a></p>

<sup>22</sup>Master class training was not extended to the Fiji agritourism sector because agribusiness at the time (mid 2022) was busy re-opening their business operation in response to a rapid increase in tourism visitation into to Fiji (due to the cessation of international travel restrictions).

No.	Activity	Outputs/ milestones	Completion date	Comments
3.6	Provide technical and supervisory support to Masters research projects in Agribusiness at USP/USC and other partner institutions.	At least three students, supported, enrolled during and associated with PARDI 2, and graduating with Masters of Agribusiness at USP USC, and other partner institutions.	Dec 2022	<p><b>[Completed]</b></p> <p>Three students provided with agribusiness supervision support:</p> <ol style="list-style-type: none"> <li>1. <a href="#">Manoj Kumar PARDI2 Intern</a> University of Adelaide published his study – <a href="#">Risk strategies for agribusinesses in Australasian Agribusiness Perspectives</a>.</li> <li>2. Amarachi Nnah-Ogbonda PARDI2 Intern University of Melbourne - Farmer organisation business model</li> <li>3. Luisa Wara PARDI-2 staff supervision of her Masters on virgin coconut oil value chains</li> </ol> <p>Norah Rihai (PARDI2 staff) supervision by Cherise Addinsall on agritourism in Vanuatu.</p> <p>The following MSc students completed internships in the Fiji Agricultural Partnerships Program (co-supervised by PARDI-2):</p> <ol style="list-style-type: none"> <li>1. Aisling Bryne (Barriers to women in small scale processing in the Viti Levu Highlands);</li> <li>2. Ashley Shak (viability of highland farming communities supplying the Suncoast region with high-value agricultural and horticultural products).</li> <li>3. Hanna Smith (Exploring how Agritourism can reduce loss and damage from climate change)</li> </ol> <p>PARDI-2 staff also supervised three final year students as a component of the Marine Management Program USP – in project design, methodology, monitoring and analysis of the social media marketing of tilapia project. The outcomes and lessons learnt from the student project (July 2021) on the effectiveness of social media in marketing tilapia has been shared with farmers and relevant stakeholders and the report was shared on Facebook and published on PIFON website as a resource for potential future training in social media marketing.</p>

**[NOTE]** In actioning the mid-term review recommendations as well as subsequent project contractual variations, objective three was extensively amended (i.e. activities removed and replaced). To fully report project deliverables, the table below presents activities and deliverables undertaken against the pre-mid-term review version of the Project's objective 3.

**[Original] Objective 3: Evaluate the effectiveness of participatory guarantee systems (PGS) for improving value chain linkages and performance for emerging market opportunities**

No.	Activity	Outputs/ milestones	Completion date	Comments
3.1	Undertake participatory evaluation and situation analyses of products with PGS potential (selected from high-value vegetables & fruit, kava, ginger, value –added coconut produce)	Report documenting participatory evaluations and situation analyses for the selected market chains and associated PGS.	May 2019  Jan. 2020  Aug. 2020  Feb 2020	<p><b>[Completed]</b> Project design focused on Participatory Guarantee Schemes was broadened to Pacific Agribusiness Partnerships. Initial methodology was developed that collated perceptions on PGS schemes.</p> <p>1. <i>Fiji Kava</i>: <a href="#">An assessment of the Internal Control System</a> protocol conducted and <a href="#">manual was finalised in 2020</a>.</p> <p>Project discontinued due to new management, change of priorities and lack of available finance to implement by Fiji Kava.</p> <p>2. <i>Natures Way CoOp</i>: modified project (following delays due to COVID19 and TC Harold), farmer agreements developed and trialled in 2020 with a group of papaya farmers. This initiative was reported in the <a href="#">Fiji Times</a>.</p> <p>3. <i>Fiji Beekeepers Assoc</i>: Consumer and retailers survey completed July 2020. Incorporated into new honey objectives (Obj 2).</p> <p>4. <i>Napil Rural Training Centre for young farmers/Farm Support Association</i>: project delayed due to COVID19 (March) and TC Harold (April). FSA has reprioritised research efforts. Efforts made to commence activities with Dynamics in Vanuatu were discontinued due to reprioritisation of project objectives.</p> <p>5. <a href="#">A situational analysis</a> was conducted on coconut syrup on Rabi Island, supporting enterprise Marama Niu (MN) to accompany the PARDI 2 and POETCom team to Rabi Island to investigate the feasibility and sustainability of sourcing coconut syrup from Rabi.</p>

No.	Activity	Outputs/ milestones	Completion date	Comments
3.2	Identify benefits and options for a PGS model and an M&E framework	Report and journal paper on the evaluation of suitability, value and options for PGS models, including M&E framework, in the PICs	Report May 2019 Poster Oct 2019	<p><b>[Completed]</b></p> <p>PGS models have been explored through consultation with private sector and ACIAR project research partners.</p> <p>A discussion paper - <a href="#">Adopting and adapting the principles of participatory guarantee systems for local quality assurance systems in conventional agriculture</a> - was published as conference proceedings, along with a <a href="#">Ppt presentation</a> and presented as a <a href="#">poster</a> at the <i>International Tropical Agriculture conference 2019</i> in Brisbane (TropAg2019). The <a href="#">paper</a> and <a href="#">Ppt presentation</a> are available on the PIFON website.</p>
3.3	Implement at least three PGS, including training of PGS members in improved production and business practices and documentation, evaluate using a participatory action research approach and chemical/quality analyses of products.	Reports documenting functional PGS and demonstration chains for high-value vegetables and fruits for tourism sector, and at least two other PGS demonstration chains, likely from kava, ginger, value-added coconut produce.	1- June 2020  2- August 2020  3- December 2020  4 - Sept 2020	<p><b>[Completed]</b></p> <p><a href="#">Feasibility assessment of digitisation of Fiji Kava's internal control system</a> was carried out by TraSeable solutions recommending 3 options with associated costs to improve data and operational management, quality assurance, and working relations between kava farmers and Fiji Kava. The results were presented at the Fiji Agriculture Research Symposium in November 2020.</p> <p>-- Fiji Kava: <a href="#">Internal Control System protocol</a> document finalised in 2020 was discontinued by Fiji Kava due to lack of available finance to implement.</p> <p>Farmer contract agreements trialled for one Nature's Way farming groups.</p>

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## 7 Key results and discussion

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### 7.1 Agribusiness tools, products and knowledge for researchers and agribusinesses<sup>23</sup>

PARDI-2 has created new knowledge which directly benefits Pacific agribusiness, as well as local Government, NGOs, donors and research agencies supporting the sector. This includes information relevant to the wider agribusiness sector:

1. Fifteen case studies of successful Pacific agribusinesses / products (seven in Fiji; three in Tonga and five in Vanuatu) to evaluate business, economic and livelihood impacts, and identify crucial factors associated with success as well as key constraints to further growth and impacts of current policies and regulations<sup>24</sup>.
2. A review and case studies on the risks to Pacific agribusiness, including the development of a risk minimisation and mitigation framework, and strategies, published in *Australian Agribusiness Perspectives* journal in 2019.
3. Analysing barriers and opportunities for improving female and youth participation, and enhanced environmental sustainability in agribusiness in the Pacific islands and documenting the research in a paper on Fijian women fishers' contribution to livelihoods and food security published in *Journal Ocean and Coastal Management Feb 2021*, an article on the status of the involvement of women in tilapia aquaculture in Fiji in SPC *Women in Fisheries Bulletin (Sep 2021)*, and another about valuing the critical roles of women fishers in Fiji published in the *Women in Fisheries Bulletin (Mar 2020)*.
4. An assessment tool and framework for measuring livelihood quality and improvement ([An assessment framework for agribusiness interventions](#), [A tool for measuring livelihood improvement along with an assessment tool guidance document](#)).
5. [Agritourism Experiences: A Situation Analysis](#) of agritourism Pacific experiences
6. Technical co-contribution into the revised 2<sup>nd</sup> version [Agricultural Value Chain Guide for the Pacific Islands](#)'

Key Industry and business specific information:

1. Agritourism product development assessment [checklist](#).
2. [Agritourism start up guide](#) for the Pacific developed in consultation with South Pacific Tourism Organisation (SPTO).
3. The [Tilapia Compendium](#) which provides a useful resource for tilapia covering basics for tilapia farming in Fiji, set up, understanding the market, business plan templates and tools, including business recommendations.
4. Market assessment "[Marine Fish Market Analysis to Determine Factors Influencing Tilapia Marketing](#)".
5. Honey Tool kit for the Fiji Beekeepers Association and Fiji Ministry of Agriculture extension staff. The Honey tool kit contains new information on:
  - [Honey Branding for trainers ppt](#)
  - [Honey Packaging for trainers ppt](#)
  - [Honey Labelling for trainers ppt](#)
  - [Fiji Consumer Preferences of Honey ppt](#)

Webinar training videos:

- [Honey Branding](#)
- [Honey Packaging](#)
- [Honey Labelling](#)
- [Honey Quality Assurance Webinar](#)

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<sup>23</sup> Section 7.1 aligns with deliverables achieved in Objectives 1, and components of objectives 2.3, 2.4, 2.5

<sup>24</sup> See section 6; Objective 2.2 for links to individual reports, value chain reviews and situation analyses.

6. An [Introductory](#) and [Advanced](#) Beekeepers Business Profitability and Accounting Spreadsheet.
7. Two value-added bee product [workshop videos](#) along with baseline data and [an impact report](#)
8. Supplementary PowerPoint presentations for trainers and extension agents on [Honey Branding, Marketing, Distribution and Packaging](#) and [Honey Labelling](#)
9. [Pacific sandalwood growers guide](#) (co-author contribution)
10. [Bamboo Agribusiness Compendium](#)

Material (tools, compendia and resource material has been incorporated into industry training (specifically agritourism, tilapia and honey), and uploaded on to relevant industry and peak regional body websites (including PIFON).

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## 7.2 Identify and enable value chains for selected Pacific agribusinesses, sectors and products.

### AGRITOURISM

Over the last 4 years, PARDI-2 has made a significant contribution to supporting and aiding the development of the agritourism sector in Fiji and Vanuatu. Whilst initial market intelligence suggested growing demand for agritourism-based experience, a lack of information constrained an analysis of possible market opportunities. We undertook a situation analysis through desk-based research and surveys with operators to better understand the current situation. We also brought together stakeholders from local government agencies, agribusinesses, tourism stakeholders, and business advisory service providers to discuss opportunities and share information, and to inform a way forward to best support and develop the sector.

In Fiji and Vanuatu this included:

- Advocating for policy changes and reforms to better support the sector and to mainstream agritourism within the Sustainable Tourism Strategies.
- Supporting the establishment of agritourism associations, to better coordinate and empower this emerging sector
- Developing and delivering a capacity building program with key stakeholders (i.e., product development tools, training, start-up guides, development of marketing content) to support smallholder agribusiness and communities in the development of Agritourism experiences.
- Piloting an agritourism capacity building program at the enterprise-level to demonstrate the support required to launch successful agritourism experiences. This involved provision of business mentoring / coaching to businesses during their establishment phase to better understand the key constraints / barriers they face, and track progress and connect agribusinesses to other programmes that offer support.

From these stakeholder dialogues, it was clear that Fiji and Vanuatu were at different phases of embracing and developing agritourism and required different strategic approaches.

### *Agritourism Vanuatu*

The Vanuatu agritourism sector, comparatively progressive to Fiji, gained substantial government recognition and support through PARDI-2's collaborative efforts with the Vanuatu Government and Tourism bodies. Key achievements include co-writing and launching the Vanuatu Sustainable Tourism Strategy 2021-2025 (January 2021), leading the development of the Food Tourism and Agritourism Initiative. This initiative received the Island Innovation Award for the most transformative government sustainability initiative in April 2022.

The PARDI-2 team's strategically supported a significant shift in the approach to agritourism in Vanuatu, focusing more on sustainable traditional local cuisine and traditional farming practices through increased connections between local and international tourists and primary producers.



The Vanuatu agritourism component of the PARDI-2 ran from 2019 to 2022. The project placed significant emphasis on collaboration with the agritourism sector and associated stakeholders to improve the policy environment. PARDI-2 played a pivotal role in forming the Vanuatu Agritourism Association in 2021. The Vanuatu Agritourism Association, comprising an executive committee and members from all six provinces, serves as ambassadors for agritourism and food tourism.

Collaboration with the Vanuatu Bureau of Standards, the Vanuatu Agritourism Association, and Regenerative Vanua led to the development of agritourism standards aligned with the Global Sustainable Tourism Council criteria and regenerative agricultural standards.

The project's contributions extend to the development of Regenerative Agritourism Standards, supported by the Vanuatu Bureau of Standards (VBS). These initiatives provided clear policy direction, enabling the government to secure significant financing from sources including the European Union and the Ministry of Foreign Affairs and Trade of New Zealand. As a result, agritourism and diversified business models have become central to Vanuatu's tourism post COVID-19 recovery strategy.

While PARDI-2 project has made significant strides in transforming Vanuatu's agritourism sector, sustained support and concerted efforts are essential for its continued growth. It is imperative to clearly define and distinguish agritourism, steering away from a focus solely on supplying produce to resorts. Instead, the focus should encourage tourists to visit rural communities and primary producers, fostering a more authentic and immersive experience.



Slow Food Education and Support Program rolled out to 6 Vanuatu provinces.

Ongoing support for research and implementation of Regenerative Agritourism standards and certification is crucial. These standards recognise traditional farming systems that combine agricultural biodiversity, resilient ecosystems, and cultural heritage. It is imperative to avoid mono-sector focused projects that could lead to a reduction in crop diversity and resilience to climatic impacts.

The Vanuatu Agritourism Association is critical in advocating, connecting with the government and donors, and supporting the development of agritourism products aligned with tourists' expectations, fostering local engagement in tourism. However, to ensure its long-term sustainability, additional support is needed, including financing permanent positions within the executive committee, conducting capacity-building activities, securing funding for meetings, and facilitating exchange learning opportunities between Vanuatu and Fiji's Agritourism Association. Regenerative Vanua's achievements in regenerative agritourism have gained global recognition, leading to the official launch of the Global Agritourism Network (GAN) Pacific Committee in April 2023.

### ***Agritourism Fiji***

In Fiji, the project worked in partnership with key stakeholders, including the Ministry of Commerce Trade Tourism and Transport (MCTTT), Tourism Fiji, the Fiji Hotel and Tourism Association to increase the awareness and visibility of agritourism and farm tour operators. Most of our effort in

Fiji was at the individual enterprise-level, working with individual agribusinesses, farmers and existing agritourism-experience enterprises, to strengthen their experiences, business model, support them to connect to advisory service providers and support their market readiness post-COVID. Given the weak capacity at the national level, this approach sought to demonstrate what could be achieved by commercial operators (and associated success stories) with the view to influencing potential future policy reform.

Fijian operators face challenges such as legislative uncertainty, business compliance, and poor rural infrastructure. While Fiji's national tourism policy didn't explicitly recognise agritourism, there is acknowledgment of the need to strengthen ties between agriculture and tourism. Post-COVID, Tourism Fiji's Corporate Plan (2022-2024) includes agritourism, emphasising sustainable and regenerative practices.

PARDI-2 convened two Talanoa sessions in 2019 and 2020 facilitating stakeholder collaboration, addressing challenges and opportunities. Responding to the demand generated by the Talanoa workshops, the project initiated an intensive business mentoring and support program. This program included the testing of product development assessment and guidance resources, resulting in the refinement of a generic agritourism product development checklist. The subsequent support extended to individual enterprises, leading to tangible improvements in their market readiness, such as improved agritourism experiences at Namosi Eco Retreat and Paradise Taveuni, new agritourism experiences at Bula Coffee and Bulaccino Farm and critical improvements at Cegu Valley Farm to support their opening to guests in late 2022.



Agritourism Experiences Talanoa workshop - Suva, Fiji Oct 2020.

Several agribusinesses that lacked a supporting farm experience, are now supporting tourism experience providers in various ways: South Sea Salt is now stocked in various retail outlets and supplies the Intercontinental Hotel in Natadola. Further, GingerLei Beer is stocked at Ginger Kitchen Cafe in Suva and regularly contracted for events. The programme also supported four enterprises (Waitika Farm, Bula Coffee, Vees Farm and GingerLei Beer) to exhibit their products at the hotel supplier annual conference and make important connections with industry partners to support future growth and market opportunities.

PARDI-2 has provided technical support to six women-led Fiji agribusiness resulting in improved business practice. Waitika Farm and Mama's Mushrooms have adopted business rebranding, new logos and development of new branding material. Marama Niu and Rabi Virgin Coconut Oil Producers were supported to co-develop a new product and value chain (based on coconut nectar and virgin coconut oil), which they now sell into the Suva market. This achievement has important community impact given that Rabi Island is a small remote island community. Marama Niu have gone from strength to strength, in June 2022 launching a new product – coconut-based chocolate coated Nice Cream



Based on PARADI-2 Fiji agritourism successes, we were invited to be a member of the Fiji National Sustainable Tourism Framework steering committee. The new strategy was developed between November 2022 and June 2023. The learnings from PARADI-2 efforts to diversify and enhance consumer experience, fed into this national strategy through ongoing involvement.

As a result of the work supporting and developing agritourism experiences in Fiji and Vanuatu an Agritourism start up guide was developed to capture these learnings and assist any farmer or agribusiness considering developing an agritourism experience business. The guide built on SPTO's SME Tourism Recovery tool kit released in October 2021.

While Fiji's agritourism sector has witnessed growth, challenges persist. Specific constraints, such as food safety standards, financing, insurance premiums, industry unfamiliarity, and land tenure issues, demand tailored solutions. Overcoming challenges requires collaboration, government support, and access to resources. There is a need for ongoing collaboration, policy adjustments, and targeted research to unlock the full potential of agritourism, ensuring its contribution to sustainable development in Fiji.

## FIJI HONEY

The beekeeping sector in Fiji faces a myriad of challenges that have impeded its growth and sustainability. High colony losses, attributed to a lack of good beekeeping husbandry skills, pest infestations, and diseases, remain a significant hurdle. Additionally, the absence of best practices and limited contextualised information on quality control mechanisms has hindered optimal production. The low hive productivity, averaging less than 25 kg per hive, coupled with a lack of product diversification and market development, underscores the sector's struggle for viability. Furthermore, the industry grapples with the absence of comprehensive cross-sectoral strategies for research, development, and extension.

Market dynamics pose additional challenges, with local honey largely absent from food service industry outlets and online channels throughout the country. Larger beekeepers dominate supermarket supplies, limiting accessibility for smallholder farmers. Packaging and presentation hurdles persist, as smallholders struggle with affordable packaging and bottling facilities, impacting product quality standards. Trust in the authenticity of bee products is low among consumers, reflecting a need for improved testing facilities and quality assurance programs.

However, amidst these challenges, several key outcomes and initiatives have emerged through the PARADI-2 project working in partnership with the ACIAR LS/2014/42 project, Fiji Beekeepers Association and the Fiji Ministry of Agriculture. The industry structure was examined in detail through the first honey market assessment, providing a baseline for growth plans and market opportunities. A Pacific consumer and retailer preference study shed light on honey buying behaviour, aiding decision-making for product development. Webinars on marketing beekeeping, a novel initiative for the sector, garnered significant interest and participation from smallholder farmers across the Pacific.

Training and capacity-building efforts have been instrumental, with the development of a honey toolkit for trainers and extension officers, enhancing profitability accounting tools for beekeepers. Collaboration between industry and government has grown, with improved relationships and

capacity building noted among key stakeholders. Notably, market-oriented interventions have generated income, exceeding the budget commissioned for project activities.

The introduction of the Value Adding Beeswax program has catalysed a shift in the industry landscape. The observed increase in demand for beeswax, accompanied by incentives for its collection during beekeeping, has not only reduced biosecurity risks but has also enabled women to enter the traditionally male-dominated apicultural industry. The success of the Value Adding Beeswax initiative has spurred interest and additional funding, propelling the Fiji Beekeepers Association (FBA) into an ongoing industry development program.



Beekeeper training and capacity building in Fiji

An important element of our agribusiness capacity support for the Fiji honey industry was the development of a honey tool kit for beekeeping training instructors and extension officers. Intermediate and advanced beekeeping profitability accounting tools were developed as training resources and made available for beekeepers to assist in keeping track of honey production and enterprise profitability. PARDI-2 honey research has been translated into technical training resource for use by Fiji Ministry of Agriculture extension staff and training instructors at the Fiji Beekeeping Association.

Efforts to enhance honey quality assurance, including the development of a Honey Code of Practice and collaboration with HACCP Australia for certification, signify a commitment to industry standards. Large beekeeping operators are recognising the value of HACCP certification and actively planning transitions. Businesses have secured grants for honey packaging facilities, a significant milestone for the industry.

Identified growth drivers for the sector offer a path forward. The potential for expansion is evident, with over 60 enterprises selling packaged honey, indicating room for further growth beyond current production estimates. Untapped market opportunities in retail and HORECA channels, coupled with advocacy for improved marketing and branding, present avenues for industry development. Capacity building, quality assurance, and diversification of market channels are recognized as critical components for sustainable growth. However, challenges persist, notably in the reliance of the FBA on volunteers and donor funding.

Research opportunities are identified as key to addressing ongoing challenges and fostering sustainable growth. Research on packaging, bottling, and labelling options for smallholder farmers is essential. Additionally, investigations into honey quality assurance, food safety practices, consumer preferences, and market demand are critical for informed decision-making. Exploring opportunities in the tourist market and assessing economic impacts will contribute to long-term strategies for growth.

Recommendations are made to formalise national beekeeping industry boards, develop a comprehensive 5-year R&D industry strategy, and leverage the global positioning of Pacific honey products. Trialling demonstration chains for new categories and providing targeted capacity building for associations are crucial for industry development. Strategic planning, continued education, and collaborative efforts with retail buyers and supplier networks are highlighted as key drivers for sustained growth. Ultimately, these recommendations underscore the importance of long-term planning, industry collaboration, and strategic research to unlock the full potential of the beekeeping sector in Fiji.

## TILAPIA

**Fiji tilapia Industry Synopsis.** Commercial investment in the aquaculture of tilapia has created a global success story. However, in Fiji, as in other Pacific Island Communities, the industry has struggled. Considerable effort over many decades has contributed to a level of local technical knowledge and capacity, but Fiji tilapia farmers have failed to realise their full potential. Industry development policies and donor initiatives have encouraged and incentivised prospective farmers to participate in tilapia aquaculture farming, only to see farmers eventually exit the industry due to limited commercial viability<sup>25</sup>. Tilapia farming is currently a part-time activity for most Fiji farmers.

Little effort has been invested in post-farmgate market chain development, education, and promotion to consumers. Tilapia is reputed to be a fish of excellent eating quality in other parts of the world. Whilst fresh caught tilapia (150-250 grams) is occasionally available in local markets and door-to-door sales, there are few sales present in retail channels in Suva, Nadi and Lautoka.



*Examples of current commercial Tilapia aquaculture production in Fiji.*

Our approach involved consultation with local stakeholders. A [tilapia industry workshop](#) involving 17 tilapia farmers from around Fiji identified 10 key priorities, emphasising production-related issues. Despite recognising the need for improved marketing, the primary concerns were related to production. A [market study in Lautoka](#) adjacent suburbs<sup>26</sup> revealed consumer choices in Fiji are driven by eating preferences, cultural practices, and religious considerations. Most vendors surveyed indicated they would sell tilapia if there was sufficient consumer demand. The study further observed poor postharvest practice, under-sized fish, and the trade in at-risk fish species. Tilapia's market penetration remains low, with limited availability in organised retail channels and the food service sector.

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<sup>25</sup> Industry statistics provided by Tilapia Fiji (2020) from western Fiji (Nadi Lautoka Ba) listed some eighty-five farmers had adopted farming over the last decade, with 80% now classified as dormant.

<sup>26</sup> This study undertaken in 2021 was impacted by local covid-19 restrictions (i.e. the purpose-built fish market, Fishermen's wharf was closed, necessitating fishermen into road-side trading or via the municipal market). Vendors surveyed reported a 30 to 60% reduction in sales due to a reduced consumer capacity to purchase fish and reduced wild-fish sourcing.

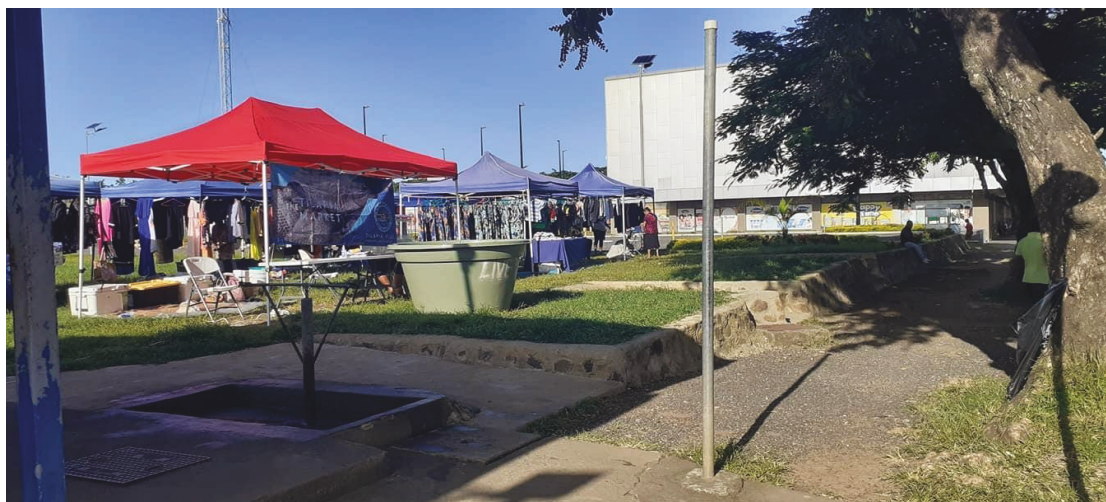
To document current knowledge and best practice, as well as raise awareness of business and marketing fundamentals, we co-prepared [The Tilapia Compendium<sup>27</sup>](#), which was. This compendium, released in March 2022, contains practical information on basic requirements, testing the market, technical set up, and planning for growth. To ensure farmer access to this important resource, the compendium was uploaded on to the PIFON and PAIS websites, and was subsequently incorporated in a value chain [train-the-trainer workshop](#) (April 2022, Nadi, Fiji). Facilitators of this workshop included PARDI 2 staff.

Technical assistance was provided to [Tilapia Fiji](#) for organisational development, strategic planning, and governance. In partnership with Pacific Women and Pacific Connect, we have further supported Tilapia Fiji to raise the profile of women tilapia farmers, through attendance at the [Triennial for Pacific Women virtual event](#) (April 2021) attended by over 40 women from across the Pacific; and by convening another virtual event for Women in Aquaculture (June 2021) with 21 attendees from the Pacific, Indonesia and Australia.

To address the challenge of inconsistent local consumer awareness and low product demand, we established a series of pilot in-marketing demonstrations. Our premise, was that low market penetration and consumption of farmed tilapia in Fiji limits farmer participation, reduces industry confidence, and undermines future investment in the sector. Municipal markets are proven distribution points, and along with supermarket retailers and the service industry support the largest group consumers in Fiji. These buyers were the target of our market development activities.

The aim of the pilot marketing demonstrations was to show how low market penetration of farmed tilapia can be addressed by adopting a new and different approach, driven by the private sector through a farmers' association (Tilapia Fiji). In this case, the prime output being sales via permanent promotion of fresh tilapia to consumers shopping regularly for seafood at the Lautoka Municipal market and Shirley Park precinct. In theory, demonstration activities can be effective mechanisms for forging partnerships between public, private and (especially) community sectors. By working together, new insights and lessons can also be learned, and later replicated and scaled up.

In partnership with the Tilapia Fiji Association, six farmers (western cluster)<sup>28</sup> were selected to participate in a weekly market demonstration (from May 2022). The Lautoka demonstration focused on live tilapia fish, the best well-known product by smallholder farmers ([Final report](#)).



Pilot marketing demonstrations - live tilapia fish market point-of-sale set up, Lautoka, Fiji.

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<sup>27</sup> This extensive 64 page publication was co-funded by ACIAR (PARD1-2) in partnership with PIFON and its supporting donors

<sup>28</sup>With five Tilapia farmers from Lautoka, Ba, and Nadi eventually participating in the demonstration.



Pilot marketing demonstrations - live tilapia fish market point-of-sale set up, Lautoka, Fiji.

Over a 20-day sales period, the demonstration attracted 223 customers, with 50% buying tilapia for the first time. Live tilapia was the preferred choice for 94% of consumers. As the weekly pilot demonstration progressed more information and feedback from farmers and customers was gathered and the average size of tilapia being sold increased, coming closer to customer preferences. Tilapia was positively received by consumers, with many willing to try it for the first time. Most respondents found the price of \$10/kg and \$12/kg reasonable.



To further disseminate project findings and map strategic areas for tilapia Fiji Industry, we hosted a stakeholders' meeting on 25<sup>th</sup> August, 2022 (24 attendees).

We also concurrently investigated the viability of tilapia in the food service industry in Fiji<sup>29</sup>. This research focused on developing a market pathway into the tourism and hospitality sector, based on larger size tilapia fish in whole-fish or portion options, with further work undertaken to develop and evaluate cuisine options using selected local restaurants. The trial was established in March 2022, with tilapia farmers contracted to grow fish to an 800g target weight. Multiple issues with underweight fish supply<sup>30</sup> delayed the trial to July 2022. The investigation incorporated local restaurants<sup>31</sup> and hotels, and included service operator and customer surveys, tilapia preparation and storage trials, and in-restaurant menu assessment<sup>32</sup>. Trial methodology and results are presented in detail in the [Final Report](#).

<sup>29</sup> This research, funded by PARDI- 2, was undertaken by Food Inspired (Fiji) Pte Ltd, with support from three restaurant partners, Fiji Tilapia Association and PIFON staff.

<sup>30</sup> The issue of under-weight of fish was not fully resolved, with trials based on 650g (average weight product).

<sup>31</sup> Non-tourism business locations.

<sup>32</sup> A team of four experienced chefs created a range of cuisine based on tilapia.



Ginger & Soy Whole tilapia, Restaurant 168, Lautoka.



Tilapia & tofu stew, Restaurant 168, Lautoka



Sashimi Platter using tilapia, Nuku Restaurant, Volivoli Beach Resort



Tilapia Terrine with a hollandaise sauce, Nuku Restaurant, Volivoli Beach Resort

While restaurant interest in tilapia was evident, the study found a high level of interest in the hotel sector (see [Final Report](#)). The hotel industry could represent a niche market for tilapia, given commercially viable production of larger fish. However, production issues and supply chain logistics need improvement.

There was a perceived reluctance amongst Fiji tilapia farmers to produce larger sized fish (800 to 1000g) required by the hotel and restaurant industries. In discussions with SPC researchers, this appears to relate to a production issue associated with low oxygen rates in ponds (due to poor pond management) reducing feed / conversion, resulting in slow fish growth rates.

There was a surprising high level of interest in tilapia among tourism sector operators. This suggests a ready and high potential niche market which could be developed relatively quickly if production issues were addressed to enable commercially viable production of 800 to 1000g product. As a result of this study, the hotel sector should be considered the target niche market for tilapia, as it is likely to be more quickly developed compared with the restaurant industry. The hotel industry seems willing to pay a premium for larger tilapia, if it can be priced competitively against other marine fish.

There is a need for the tilapia industry to become more organised in terms of their capacity to produce larger fish, to disseminate information and undertake training on industry food hygiene and safety standards, as well as adopt more reliable supply chain logistics.



## 7.3 Capacity building and training

Date	Activity	Comment
Feb 2019	Agritourism Experiences Talanoa 1	Two-day workshop event attended by 76 agritourism operators and researchers, and smallholder farmers from across Fiji (41 female).
Apr 2019	Fiji Beekeepers Assoc annual meeting and workshop – Labasa, Fiji	Workshop: honey as agribusiness, planting trees to increase hive strength and honey flows, and floral calendar, attended by 95 beekeeper participants (38 female) from throughout Fiji.
29 Apr–10 May 2019	Promoting Nutritious Food Systems in the Pacific workshops	Collaboration with PIFON – workshops in ‘Promoting Nutritious Food Systems in the Pacific’ were held at the Tokatoka Resort Nadi, Fiji with 75 participants from nine countries around the Pacific including Fiji, Tonga and Vanuatu
May – June 2019	Business mentoring and coaching sessions	Provided business coaching and mentoring for two agritourism operators - Bulaccino and Waitika Farms (4 people, 2 female)
July 2019	Tilapia Farmers have their say	PARDI 2 together with PIFON facilitated and supported a “Tilapia Farmers Have Their Say” (inclusive of stakeholders) event. The aim of the workshop was to gauge farmer perceptions on the current local tilapia industry, identify key challenges faced by farmers and to discuss practical steps to develop the industry through a participatory approach. From this event the Tilapia Fiji Association was formed. Twenty-seven participants attended including Representatives from tilapia clusters around Fiji, Min of Fisheries, the Pacific Community (SPC) attended a 1-day consultation workshop
Sep 2019	The Fiji Agribusiness Masterclass (AMC)	The Fiji Agribusiness Masterclass (AMC) was six days of intensive learning, research activities, site visits and presentations. It gave the 42 participants the opportunity to learn value chain concepts in advance, through an online course, and had a learning-by-doing approach where participants conducted value chain research and analysis in small multi-disciplinary teams as a key part of the training
Oct 2020	Fiji Agritourism Experiences Talanoa 2	A two-day agritourism workshop in Nadi, Fiji - capacity building through sharing experiences and ideas, successes and barriers to agritourism experiences in Fiji, including strategies on post COVID requirements to be visitor ready and product development for sustainable agritourism experience. A total of 58 participants attended (including 39 farmers, agribusiness and agritourism operators; and other stakeholders i.e. govt, NGOs, tertiary institutions and partner agencies).
Mar 2021	Value adding to Bee Products	Two x 2-day workshops co-facilitated with Fiji Beekeepers Association in value adding strategies for bee products – in Rakiri Viti Levu (20-21 Mar) and Labasa Vanua Levu (27-28 Mar). They included workshops in making products such as body balm, lip balm, candles and honey recipes, such as hard candies and honeycomb. In total, 22 participants (77% female) engaged in the workshops, 11 in each location. <a href="https://vimeo.com/531472643">https://vimeo.com/531472643</a>

Apr 2021	Fiji Beekeepers National Symposium presentation: Honey preferences for consumers and retailers	Fiji Beekeepers National Symposium - workshop presentation on honey preferences for consumers and retailers, Nausori Town, Viti Levu. Just over 100 FBA members attended the event and the presentation made available as a training resource to 6.3K online members of the Fiji Beekeepers Association. The PowerPoint presentation was also made available via the FBA Facebook page.
Apr 2021	Vanuatu – Agritourism Business Support Week	The Agritourism Business Support Week was a 5-day event held in Port Vila, Vanuatu. It was aimed to capacity build 30 agritourism operators in areas of business support, marketing and branding, product development, quality health and safety, and business preparation and survival. An average of 40 participants attended each day.
Jun 2021	Agritourism Webinar  Webinar series 1	<i>Agritourism Experiences Webinar series 2021</i> co-facilitated by PARDI 2 to brings together critical agritourism stakeholders, including government officials, experts from the Pacific Community (SPC) and community-based agriculturists from around the Pacific to share their journeys in the Agritourism space, particularly in light of the shock to the tourism industry due to COVID-19. The first webinar in the series launched on 16 June: <b>Cocoa Chocolate: Bean to bar experience</b> was attended by 74 participants including members of ministries from the Pacific Islands and New Zealand.
Jul to Nov 2021	Honey webinar series	Webinars have been conducted in partnership with FBA participation by over 130+ beekeepers, extension officers, apiculture and agribusiness researchers from 5 Pacific countries. Content included : honey branding, honey packaging, labelling, and quality assurance.
Jul 2021	Agritourism Webinar series 2	The second webinar in the series: <a href="#"><u>Organically tilled from farm to table: An Oceania Pasifika Experience</u></a> was attended by 30 participants
Sep 2021	Agritourism Webinar series 3	The third webinar in the series: <a href="#"><u>Sweet Buzzing Tour Tales</u></a> , was attended by 30 participants.
Oct 2021	Agritourism Webinar series 4	The fourth webinar in the series held on 20 Oct 2021: <a href="#"><u>Panel Discussion: Touring Organic Sprouting: New Hospitality in Oceanic Pasifika</u></a> was attended by 15 participants.
Dec 2021	Agritourism Webinar series 5	The fifth webinar in the series held on 7 Dec 2021: <a href="#"><u>Agritourism for Vanuatu: Niufala Rod Blo Tourism</u></a> was attended by 65 participants
Feb 2022	Honey Quality Assurance Webinar	A webinar on <a href="#"><u>Honey Quality Assurance</u></a> was implemented in association with HACCP Australia with >35 participants.
April 2022	Tilapia value chain awareness and analysis workshop	PARDI 2, in collaboration with the Institute of Marine Resources (under USP) working under an EU-funded project (PEUMP) and PIFON, held a training workshop on <b>Understanding and Analysis of Tilapia Value Chain</b> in Nadi (April 2022). This value chain training course was

		attended by 25 participants - tilapia farmers, extension officers and value chain researchers from USP. See <a href="#">report on the training</a>
May 2022	Honey quality and assurance mentoring	One-to-one mentoring for up to 5 honey packers to develop quality assurance plans (e.g. HACCP).

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## 8 Impacts

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### 8.1 Scientific impacts – now and in 5 years

This project has generated 8 academic publications (see section 10.2) including: A review and case studies on the risks to Pacific agribusiness, including the development of a risk minimisation and mitigation framework, and strategies, published in [Australian Agribusiness Perspectives](#) and Women and the business of aquaculture: a case for women tilapia farmers in Fiji, [Fisheries Bulletin](#).

We have also developed several key agribusiness and industry technical resource materials:

1. [Pacific agribusiness – learning from the survivors.](#)
2. [Agritourism start-up guide](#)
3. [An assessment framework for agribusiness interventions](#)
4. [A tool for measuring livelihood](#) and [assessment tool guidance document](#)
5. [Tilapia compendium](#)
6. [Breadfruit compendium](#)
7. [Bamboo agribusiness compendium](#)
8. The Honey Tool Kit<sup>33</sup>
9. [Agricultural value chain guide for the Pacific Islands](#) (co-authored contribution)
10. [Pacific sandalwood growers guide](#) (co-authored contribution)
11. [A smallholder guide to honey branding and marketing](#)
12. [2023 Agritourism experience in Fiji: A snapshot.](#)
13. [Regenerative Agritourism: Industry snapshot and opportunities for Agritourism and Food Tourism in Vanuatu](#)

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### 8.2 Capacity impacts – now and in 5 years

#### 8.2.1 Vanuatu agritourism

PARDI-2's capacity building support to the Vanuatu Department of Tourism has helped strengthen their internal policy analysis capacity and has led to the development of the [Vanuatu Sustainable Tourism Strategy \(VSTS\) 2021-2025](#), launched in January 2021, as well as a series of flow-on initiatives. Working in partnership with other agencies, government, and funding bodies, we developed the Vanuatu Sustainable Tourism Policy 2019- 2030 and co-authored the agritourism component of the Vanuatu Sustainable Tourism Strategy (VSTS) 2021-25. The policy has supported the Department of Tourism to secure significant financing for its implementation, including through the European Union and the Ministry of Foreign Affairs and Trade, New Zealand.

The Vanuatu Council of Ministers and private industry have approved the Food Tourism and Agritourism Initiative (FTAI - locally named [Produktif Turism Blong Yumi](#) initiative). The FTAI has a Slow Food Education and Support Program; Traditional Cuisine Revival Program; Agritourism Marketing and Research Support Program; and Agritourism Product Development and Business Support Program. The Food Tourism and Agritourism Initiative - [Produktif Turism Blong Yumi](#) – won the prestigious international [Island Innovation Award](#) for [Most Transformative Government Sustainability Initiative](#). This has global implications of influence, as quoted in the [Vanuatu Daily Post](#):

*“A major element of the Island Innovation Awards is to inspire other island communities. Award winners are not only bringing about change within their communities but will also be inspiring a positive change in island communities across the world.”*

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<sup>33</sup> Multiple information products. See section 7.1

Upon acceptance of the award, Minister James Bule of the Ministry of MTTCNVB said:

*...“Because of this initiative we now have a clearer understanding of what food tourism and agritourism are and the benefits that they can bring to supporting sustainable livelihoods of our people. I commend the passion and commitment of the FTAI team on the successful delivery and global recognition of this initiative, and I confirm that the Government of the day through the EDF 11 will continue to support the Food Tourism and Agritourism Initiative team going forward.”*

PARDI-2 has significantly contributed to the establishment of a National Agritourism Committee. Mentoring and capacity building work in Agritourism has led to the new appointments of three mentees in the newly formed in the Vanuatu Ministry for Trade, Tourism Co-operative and Ni-Vanuatu Business. PARDI-2 has further developed the capacity of the Vanuatu Tourism and Agribusiness sector and 30 individual enterprises, leading to industry standards for the Vanuatu Agritourism Association, a new category of agritourism under the Department of Tourism, and obtained funding from the European Development Fund (and Digicel). A partnership with Digicel provided agritourism experiences operators with smartphones to enable each business to feature their products on social media platforms. This will enable operators to reach consumers more effectively and efficiently and use this time to build their online presence.

### **8.2.2 Fiji agritourism**

The agritourism programme in Fiji has strengthened the capacity of the Department of Tourism, Tourism Fiji and the Ministry of Agriculture, to understand this segment of the market. This has been reflected in Tourism Fiji’s Corporate Plan launched in May 2022, which includes strategies for supporting SME product and experience development and visitor dispersal around the country. PARDI 2 through our involvement in the National Sustainable Tourism Framework steering committee, also contributed to the early stages of the framework’s development. Capacity at the Pacific Tourism Organisation has been strengthened and connections made between national marketing agencies and agritourism operators. SPTO has hosted webinar seminar series, which has enabled agritourism operators to be visible and make connections to their national tourism marketing agencies and with other operators.

For the five agritourism operators that participated in the agritourism support programme, mentoring and advisory services improved their capacity to earn income from farm experiences. This support came at a critical time for operators to plan for recovery and be ready to open their doors earlier than would have been the case. Through the support program, emerging agritourism enterprises have developed their capacity and skills in business planning, online marketing, website and social media maintenance, development of online booking and payment systems, training of tour guides, navigating the regulatory environment, training in starting an organic farm plot and infrastructure to enhance and enable business expansion. The enterprise support program has resulted in launches of new farm tours for three of the enterprises, and structural improvements and repairs enabling reopening and expansion of businesses to accommodate more guests, training participants, and farm animals.

### **8.2.3 Honey**

The PARDI 2 honey team provided mentoring, training and resources to more than 130 beekeepers and extension officers from five Pacific Island countries through webinars and workshops. We also provided one-on-one mentoring to 5 beekeeping businesses on marketing and business. Significantly, we provided mentor training and developed customised marketing and branding guidelines (presentation form) and associated training material for 11 FBA instructors and 5 beekeeping MoA extension officers, for them to support beekeepers seeking new market development opportunities.

## 8.2.4 Tilapia

Participatory value chain assessments, in-market demonstrations and facilitated customer feedback has increased Tilapia farmer awareness of local market requirements, leading to improved production and farm management protocols that are now more market orientated. This has help build confidence amongst farmers and relevant stakeholders of improving market demand, product development and market pathways.

PARDI 2 has provided training and capacity building of TFA staff on postharvest handling and logistics, food safety, understanding live fish market requirements, customer service, promotion and sales management, and good governance protocols. We have also provided mentoring to KayBee farm leading to business gaining a YHER incubation grant<sup>34</sup>, to further develop their business.

## 8.2.5 Further examples of capacity building impact

**Industry Associations.** Support provided to the Fiji Beekeepers Association in the form of training instructors and members, led to the Fiji Beekeepers Association being awarded a FJD\$22,000 Business Link Pacific Grant.

Technical assistance provided to tilapia Fiji Association (TFA) enabled them to successfully register as a farmer organisation. This involved working with Ministry of Fisheries and Tilapia Farmers Association to draft their constitution, formal registration, bank accounts, social media profiling, logo and identity, and marketing merchandise. The association now has the ability to more effectively coordinate farmers and stakeholders, and the confidence and the standing to meet regularly with senior Ministry of Fisheries and SPC representatives to explore and discuss issues of mutual interest, such as a memorandum of understanding for future programs.

**Students.** Three USP Marine Management final-year students (Luisa Dulunaqio, Warren Tinohitu and Palu Soqoiwasa) received training by project staff and Dr. Chin Hewavitarane (USP) in: social media marketing and the development of a research project to assess the effectiveness of social media marketing using two different platforms (Facebook and Instagram).

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## 8.3 Community impacts – now and in 5 years

PARDI-2 has achieved tangible community impacts as result of its agritourism program<sup>35</sup>.

All agritourism enterprises the project have worked with have strong connections to communities. Around 5,000 community members are linked to the agritourism-experience enterprises supported by PARDI 2 agritourism support programme. These members are mostly employees of the various 34 operators we have partnered with directly (20+ operators indirectly) and derive employment and training support on sustainable agriculture and agritourism from their employers and partners.

**Bula Coffee**<sup>36</sup> sources from over 5000 individual pickers of Fijian wild harvest coffee. Their farm experience educates visitors and guests about their value chain and their business model. It is expected that over time the production facility and visitor centre, which includes a small boutique sourcing from other Sigatoka-based producers, will become an education and training centre for coffee production.

Agribusiness mentor support provided to **Marama Niu** (a female-led food enterprise) resulted in this business alternatively sourcing coconut syrup from community-based suppliers in the remote Fiji island of Rabi. We facilitated Marama Niu to travel to the community in Rabi to meet with

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<sup>34</sup> [YHER 2021 Resilience Accelerator](#) – program to access skills, knowledge, connections, micro grants and community essentials to help women-led businesses adapt to Covid-19

<sup>35</sup> While community benefits have also been achieved through agribusiness support and technical assistance provided to the honey and tilapia enterprises, further investment is clearly required

<sup>36</sup> Bula Coffee participated in the PARDI-2 'Getting Market Ready' mentoring / Agritourism Support Programme.

potential suppliers from the Banaban community. This improved Marama Niu's understanding of the coconut syrup value chain, leading to an expanded partnership between Marama Niu and the communities on Rabi Island. Given Rabi is a remote outer island (66 km<sup>2</sup>) with a population of around 5000 and limited local business enterprise opportunities, a business partnership with Marama Niu provides direct community economic impact.

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## 8.4 Economic impacts

### Agritourism.

In Fiji, COVID-19 has had a significant impact on communities that directly support the Fiji tourism industry. While many small enterprises remain closed, PARDI 2 successfully supported the opening of new, and reopening of existing, businesses to international visitors.

Bula Coffee has developed farm tours which resulted in the employment of two new tour guides and one full time front of house staff. The tours are expected to provide a consistent income stream in the future, with over 60 bookings on their website from international and domestic guests. The small shop in the new cafe provides an outlet for locally made produce.

Cegu Valley Farm has employed an extra part-time staff member and will employ a second full time staff member once their agritourism venture is launched.

Paradise Taveuni received assistance to rebuild and renovate their piggery to create more pens and renovating their chicken coop. Once the resort fully reopens the supply of eggs and meat to the kitchen will reduce their overheads, and the farm tour experience will provide an additional revenue stream making the project self-sustaining. Paradise Taveuni has employed seven new staff and has seen an increase in visitors on their new tours. Over the next five years owners expect a *“huge increase in both tours and production”* and *“see the project going from strength to strength.”*



Paradise Taveuni renovated piggery pens.

Namosi Eco Retreat's wet environment presents significant challenges to the ability to maintain buildings. PARDI 2 provided minor infrastructure support. People from nearby villages were paid to assist with the construction of temporary and the new permanent roofs. The support enabled the retreat to reopen. As the sole employer in the area, they were able to rehire their core team (five part-time female staff) and provide *ad hoc* employment for others, for example, for maintenance and traditional performances.



Namosi Eco Retreat

[Bulacinno Farm](#) sought support through the Agritourism Support Programme to create a roofed bure area on the farm to provide shade and shelter for farm tour visitors. The shelter has provided a focal point for visits from academia and the development sector with an interest in the rehabilitation of the farm from sugar cane fields.



Bulacinno Organic Farm bure and farm tour launch.

The financial support through the programme enabled Bulaccino to continue with their aspirations for their farm at a time when they had limited financial resources.

*“In the next 5 years ... I think this place will be a hub for things to do on the Coral Coast.”*  
 – Luke Fryett, owner Bula Coffee.

The PARDI-2 programme was able to leverage substantial international marketing support for Bula Coffee through Tourism Fiji. Bula Coffee had local and international media coverage in 2022 and also connected to inbound operators on the back of PARDI 2 support.

In Vanuatu, the 30 agritourism operators mentored have received 1 million Vatu in financial support from the European Development Fund to further develop their agritourism products and transition to renewable energy. These operators are all remote and support 30 different communities and up to 500 individuals.

## Honey

Following capacity building support, 80% of those who attended have continued making products, with over 30% having made cash incomes (FDJ\$413 pp) from value added products (such as beeswax). Over 5 years this represents around FDJ\$62,000 collective income generated at the



community level. Anecdotally, there is significant demand for beeswax and increase in the market price for beeswax (a previously discarded bee product). While we anticipate increased sales for honey producers through improvement in labelling, marketing, and branding, there is currently no data on net return per farmer.

## **Tilapia**

Six farmers from the western cluster shared a total of approx. FJD\$10,000 for the supply of tilapia during our live fish market trial and the supply of larger sized tilapia for the food service sector. Three farmers have continued to sell their tilapia weekly due to renewed market demand and farmer confidence, with sales made from two farmers of 480 kg at FJD\$5760. The total sales proceeds of FJD\$4,293.60 made from the 12-week live fish trial. The TFA western cluster now has marketing fixtures and assets to the value of approximately FJD\$12,000 that can potentially be used to hire out to members and as an added source of income for the cluster.

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## **8.5 Social impacts**

To demonstrate social impacts gleaned through project activities, we have presented a series of stakeholder quotes outlining social impacts in terms of gender empowerment, cultural pride and awareness and social wellbeing.

Cegu Valley Farm aims to hire more staff once their agritourism venture is operational and are now conscious of gender equity:

*“Our female family members are rising up in the ranks and taking more responsibility, and this agritourism venture will enable them to work from home and provide opportunities to market value-added farm produce from the farm gate. Later, when things get rolling, we can hire more female staff to assist with catering and as tour guides, freeing up our female family members to take more administrative roles”.*

Namosi Eco Retreat employs mainly women and identifies with being more a social enterprise than a fast growth industry:

*“Women are the core staff who work on a casual basis at the retreat, not just for cooking but also construction and as Local Guides. As we are able to open, then increase visitor numbers, this results in women getting increased hours of work.”*

Norah Rihai Vanuatu Agritourism Advisor stated:

*“Through our Vanuatu Sustainable Tourism Policy and Strategy we seek to ensure tourism genuinely contributes to the sustainable livelihoods of our people and communities. By supporting Food tourism and agritourism experiences we can improve the wellbeing of our people based on our core values of land, custom, culture, family, community, food, and enable visitors to have meaningful connection to our values”.*

Senior Vanuatu Agritourism Officer Ms Kehana Andrews stated:

*“I’ve been working closely with our Food Tourism and Agritourism ambassadors from our program rollout in 2021 throughout the 6 provinces and I’m so impressed with the positive mindset they have and supporting environment they have developed through their Agritourism Association.”*

## **Tilapia**

PARDI-2 has contributed to the improvement of the public image of tilapia as an affordable, nutritious, sustainable and tasty fish, particularly through a professionalised, clean and mobile set up carried out at Lautoka Carnival Ground. Customer relationships have been built and strengthened through feedback and regular dialogue. We have spurred action and reignited interest from tilapia farmer clusters that were previously inactive.

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## 8.6 Environmental impact

### Enterprise level environmental impact

While AGB 2014-057 did not seek to create direct environmental impact benefit, we did ensure agribusiness support was consistent with sustainable environment land-use outcomes. Enterprise examples are presented below.

Our agribusiness mentor support of Bulaccino Farm (Fiji) – and similar organic agriculture farms – resulted in a training video developed by Bulaccino for the Vanuatu Business Support Week emphasising the importance of sustainability as part of agribusiness and agritourism experiences and was featured on [ABC's Pacific Beat](#). The profile gained from this press coverage, also generated wider interest from academia and the development sector in its transformation from an old sugar cane farm with degraded soils to a healthy organic multi-crop and animal farm. Bulaccino has become a strong advocate for the organic farming sector in Fiji.

Bula Coffee has also now committed to minimising their environmental footprint, for example through wild harvesting of their coffee beans. Their participation in the PARDI-2 support program has contributed to:

*“Planting of coffee trees, banana trees as well as some companion flowers to encourage bees, which will help with pollination of the coffee flowers. Planted 70 coconuts, tavola and dilo trees around the river side to help stop the sand from washing away.”*

Cegu Valley Farm is recognised for its commitment to regenerative practices. Owners said they are now *“more committed to composting and mulching and erosion control and pollution than ever before as a family”*. They are planting a forest composed of indigenous timber and fruit species. Guests at the farm learn fundamental skills relating to regenerative agriculture.

### Industry and sector level environmental impacts

#### Now

Value-adding training (specifically promoting beeswax products) in targeted communities in Fiji, may have provided an unforeseen environmental benefit. There is evidence that a reduction of beeswax being discarded in apiaries can reduce the spread of American Foulbrood Disease (a fatal disease of honey bees), as well as possibly reducing other honey bee pests and diseases such as wax moth (*Galleria mellonella*) and ant spp.

The new [Vanuatu Sustainable Tourism Strategy](#) (2021-2025) that we co-prepared emphasises environmentally and socially sustainable practice. For example, the strategy now includes water management feasibility studies and the development of a framework for tourism businesses to improve hygiene and measure, monitor, publicly report and manage water usage. The implementation of this strategy will lead directly to improved environmental performance of the tourism sector.

#### +5 years

One of the key drivers for the establishment of a sustainable and commercially viable tilapia aquaculture industry in Fiji is to avoid further depletion of wild fish stocks. Research undertaken by SPC estimates that the Pacific will need an additional 100,000 tonnes of fish by 2030 (Pickering, 2009). While agribusiness capacity building, new market-knowledge and product value adding trials undertaken by PARDI-2 have made a further and important contribution to supporting industry viability, it is equally important to recognise that major hurdles still remain.

## 8.7 Communication and dissemination activities

The PARDI 2 has generated multiple knowledge products in the form of technical reports, compendia, video recordings, journal / media articles, presentation slides, discussion and conference papers, policy briefs, project media and training materials<sup>37</sup>. Up till late 2021, PARDI 2 had its own website that housed many of the public facing outputs. However, to ensure longevity and access to these resources beyond the end of the PARDI 2 project, the outputs have been uploaded to or housed as resources on relevant websites, such as those of PIFON, relevant government agencies, NGOs and industry associations, and also [in the project archives section](#) on the Pacific Agricultural Information System ([PAIS](#))<sup>38</sup>. Some 120 PARDI 2 outputs /records are housed on the PAIS. Internal reports, presentations, and documentation not for public consumption are also housed on the PAIS repository with access restricted.

Agritourism outputs were disseminated to PIFON, Fiji Ministry of Commerce, Trade, Tourism and Transport; Fiji Hotel and Tourism Association; Pacific Tourism Organisation; Tourism Fiji; and USP's discipline of Tourism and Hospitality Management to use as resources and to share with their networks.

PARDI 2 agribusiness resource material has been further disseminated to SPC, PHAMA Plus, Market Development Facility, Ministry of Agriculture, Ministry of Fisheries and relevant industry associations.

The following communication and dissemination activities have been undertaken or progressed during this period.

### News media articles

PARDI 2 work has been reported in various stories in the media:

<b>Aug 2020</b>	<a href="#">Development of farmer agreements</a> between Nature's Way Co-operative (NWC) and papaya farmers to improve the viability of the 'Fiji Red' papaya industry.
<b>Sep 2020</b>	SPC <i>Women in Fisheries Bulletin</i> <a href="#">Valuing critical roles and contributions of women fishers</a> – article co-written by PARDI 2's Salote Waqairatu. The article summarises and provides highlights from a larger socio-economic survey that was carried out in eleven provinces of Fiji, to quantify the contribution of women fishers to the informal Fisheries sector, an area that has lacked data and appreciation. This is also the first time a survey of this nature and magnitude has been carried out in Fiji, through various NGO partnerships
<b>Oct 2020</b>	<a href="#">Agritourism experiences presenting opportunities</a> for farmers to diversify and grow their revenue base - the Agritourism Experiences Talanoa 2.
<b>Oct 2020</b>	<a href="#">Call for local stakeholders to invest wisely</a> – Fiji Times article about the Agritourism Experiences Talanoa 2.
<b>Dec 2020</b>	Six Agribusinesses mentored by PARDI 2 (Gingerlei Beer, Waitika Farm, KokoMana, Marama Niu, Mama Mushrooms and Tasty Island Treats) joined others at a networking event and showcase their agribusiness products: the ' <a href="#">Celebrating Fijian Food, Innovation and Enterprise</a> ' at the Australian High Commission in Suva in December 2020. The event was supported by PARDI 2 and enabled the enterprises develop stronger brand recognition and grow their network with farmers, producers and consumers. It was attended by the Permanent Secretary for Agriculture and various prominent business leaders.
<b>Apr 2021</b>	Agritourism Vanuatu – <a href="#">National Agritourism Coordinator appointment</a>

<sup>37</sup> Appendix 1 of this report will contain a list of key PARDI-2 outputs and the Final Report will provide a comprehensive list of PARDI 2 publications.

<sup>38</sup> PAIS is an online repository for a collection of agricultural information in the Pacific region and also a lot of information on allied disciplines such as forestry, environment, fisheries, rural development, and ethnology (<https://thepais.net/pais/home/home.aspx>)

<b>Apr 2021</b>	Agritourism: 'Produktif Turism Blong Yumi' Support Week – a <i>Daily Post Vanuatu</i> article about the Agritourism Business Support Week 19- 23 Apr 2021, designed to capacity build 30 agritourism operators that have met the criteria from the Department of Tourism to attend.
<b>May 2021</b>	What is Agritourism: Produktif Turism Blong Yumi? – Vanuatu Agritourism initiative and PARDI 2's role.
<b>Jun 2021</b>	<a href="#">Women in aquaculture and fisheries dialogue facilitated by PARDI 2's Salote Waqairatu.</a>
<b>Jul 2021</b>	' <a href="#">Agritourism requires a collaborative approach</a> ' – <i>Fiji Sun</i> article quoting the Fiji Minister for Commerce, Trade, Tourism and Transport (MCTTT), Faiyaz Koya at the second Agritourism Experiences Talanoa webinar series co-hosted by PARDI 2, POETcom and SPTO.
<b>Jul 2021</b>	<a href="#">EMTV (PNG) article</a> about the Agritourism webinar series co-hosted by PARDI 2, POETcom and SPTO
<b>Aug 2021</b>	<a href="#">Paving a new road for tourism through the 'Produktif Turim Blong Yumi' Initiative</a>
<b>Aug 2021</b>	<a href="#">Local champion inspires budding aquaculture farmers</a> - The success of Fijian female tilapia farmer Kata Baleisuva is featured in this ACIAR blog, as one of the smallholder farmers supported by the PARDI 2 project.
<b>Sep 2021</b>	SPC <i>Women in Fisheries Bulletin</i> – article about <a href="#">Women and the business of aquaculture</a> by PARDI 2's Salote Waqairatu.
<b>Dec 2021</b>	ACIAR blog / article in <i>Partners</i> magazine about PARDI 2 work in the honey and agritourism sectors: <a href="#">Sweet success in farm tourism and beekeeping</a>
<b>Feb 2022</b>	Food and agritourism Vanuatu ambassadors receiving goods from the EDF 11 for the work done on the Produktif Turism Blong Yumi initiative
<b>Apr 2022</b>	<a href="#">Vanuatu wins global award</a> – for food and agritourism program supported by PARDI 2 See the award ceremony on <a href="#">YouTube – Vanuatu award at 52.03</a>
<b>Apr 2022</b>	<a href="#">ACIAR blog on PARDI 2's work on agritourism in Vanuatu and Fiji</a>
<b>May 2022</b>	<a href="#">ACIAR news item</a> about the international 'Island Innovation Award' the Vanuatu agritourism initiative won
<b>June 2023</b>	<a href="#">Indigenous knowledge pioneers regenerative agritourism in Vanuatu</a>

## Facebook.

PARDI-2's [Facebook site](#) continues to generate good engagement for PARDI2's work, with over 2,600 followers. The team posts 3-4 posts a month to provide information to its audience on recent activities and impacts.

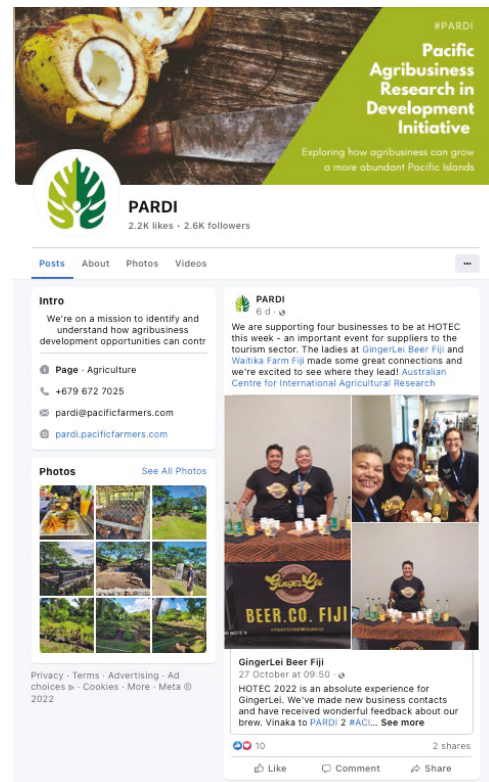
PARDI 2 made a short video of one of the agritourism owners that PARDI 2 is mentoring and coaching (also a former participant of our Agritourism Talanoa 2019 workshops) - Eileen Chute from Bulaccino Farm.

The video was published on our [Facebook page](#) and shared 101 times generating 1700 engagements.

ABC Radio Australia Pacific Beat saw the Facebook post and interviewed Eileen for a feature story: '[Meet Fijian entrepreneur and organic farmer Eileen Chute](#)' (16 June 2021). The interviews have helped raise the profile and visibility of Bulaccino Farm and agritourism in Fiji.

The Agritourism Talanoa 2 in October 2020 generated daily engagements of 300+ users.

Fiji Agritourism and Vanuatu Agritourism Associations constructed Facebook pages in February (Fiji Agritourism) and May (Vanuatu Agritourism) of 2021. Within two months of the Vanuatu Agritourism Facebook page set up there were significant posts on agritourism and local cuisine. The [Vanuatu Agritourism Association Facebook](#) now has 11.1K followers and [Agritourism Fiji Facebook](#) has 369 members.



The Tilapia Fiji Facebook page has spurred much public renewed interest and awareness in tilapia aquaculture with currently 3205 followers, slowly growing to be an accepted avenue of social media marketing for members also.

A Green Pillars TV episode (supported by PIFON, TFA was included in two episodes) covering farmers from the farmers' association created a positive public response for tilapia farming as a source of income, motivating and building confidence in farmers and in their association.

## Key conferences, seminars, webinars and forums

**Jul 2019** A 1-day consultation workshop - '*Tilapia Farmers Have Their Say*' - was organised and facilitated by the Pacific Island Farmers Organisation Network (PIFON) and PARDI-2. The objective of the workshop was to gauge farmer perceptions on the current local tilapia industry, identify key challenges faced by farmers and to discuss practical steps to develop the industry through a participatory approach. A major outcome of this event was the establishment of a name for the association (Tilapia Fiji) and nominees for the office bearers. Twenty-seven participants attended this event, including stakeholders and representatives from tilapia clusters around Fiji, Min of Fisheries, the Pacific Community (SPC).

**Nov 2020.** Presented findings of the feasibility assessment of digitisation of Fiji Kava's internal control system at the Fiji Institute of Agricultural Science (FIAS) National Agriculture Symposium, Suva. About 100 delegates attended. COVID 19 restrictions kept numbers limited. The assessment, carried out by TraSeable solutions and supported by PARDI 2, recommended 3 options with associated costs to improve data and operational management, quality assurance, and working relations between kava farmers and Fiji Kava.

**Apr 2021.** Vanuatu Agritourism Business Support Week. PARDI 2 led the conceptualisation, design and organisation of this week, which was attended by various senior officials and Ministers, along with agribusinesses, agritourism operators, financial institutions, regulatory agencies and business support organisations. We presented findings from PARDI 2 agritourism research at the event.

**Apr 2021.** PARDI 2 gave a presentation on findings of the 2020 honey consumer and retailer survey analysis at the Fiji Beekeepers Association Symposium and AGM (about 100 beekeepers attended, representing 50-60 producers – again COVID 19 restrictions kept numbers limited). The presentation has been provided to industry via social media platforms with positive feedback on PARDI2 contributions from this activity. The presentation is being adapted for incorporation into ongoing FBA beekeeping instructors training and mentorship programs.



Fiji National Beekeepers Symposium (April 2021).

**April 2021.** In partnership with Pacific Women and Pacific Connect, PARDI-2 showcased the work of women tilapia farmers at the *Triennial for Pacific Women* virtual event, which was attended by over 40 women from across the Pacific.

**June 2021.** PARDI-2 and PIFON co-facilitated the '[Women in Fisheries and Aquaculture](#)' virtual dialogue with Dr Rachel Hay (JCU Social Scientist). The Pacific Connect virtual event focused on industry support and potential partnerships. The event engaged 23 participants from Australia, the Pacific and Indonesia discussing best practices and new technologies to improve sustainable value chains. Pacific Connect is a program initiated by the International Centre for Democratic Partnerships, is DFAT funded and is part of Australia's Step-Up program.

**June 2021** PARDI 2 with the Vanuatu Agritourism Office represented the *Produktif Turism Blong Yumi* Initiative at the Shepherds Mini Agriculture Show (SMAS), Emae Island. The SMAS event allows the smaller more remote islands to showcase their agricultural outputs. This event was attended by many high-level Vanuatu Government representatives and communities and provided the opportunity to raise awareness and build understanding around agritourism, slow food and local cuisine.

**June – Dec 2021** PARDI-2 organised and co-facilitated the *Agritourism Experiences Webinar series 2021* in collaboration with SPC, POETCom and South Pacific Tourism Organisation (SPTO). This series of five, monthly webinars ran from Jun to Dec 2021 brought together agritourism experienced

practitioners, enthusiasts, and policy makers from around the Pacific for knowledge sharing, networking and capacity building. More than 250 participants attended the sessions.

**July – Nov 2021** PARDI-2 honey webinar series was conducted in collaboration with the Fiji Beekeepers Association. The first one - on honey marketing and branding - was attended by 40+ smallholder and larger commercial beekeepers, extension officers and apiculture and agribusiness researchers from five Pacific Island countries, including those that were briefly interviewed at the FBA Symposium (April 2021). This info-session was also used as a first step in scoping interest for the PARDI2 mentoring/coaching program for beekeepers. The following webinars in Sep – Honey Labelling; and in Nov - Honey packaging, distribution and customer development – each attracted 30+ participants on the day. The webinars were recorded and have attracted a further 80 -100 viewers of each webinar recording.

**Feb 2022** A webinar on [Honey Quality Assurance](#) was implemented in association with HACCP Australia with >35 participants on the day and 116+ have viewed the webinar recording.

**May 2022** Bula Coffee participated in the Fijian Tourism Expo and five (5) media organisations produced content which included the business. Familiarisation trips were organised for Tourism Fiji and agents to visit Bula Coffee.

**August 2022** – Tilapia Talanoa - industry forum. PARDI-2 co-hosted with PIFON a Tilapia Talanoa Industry Forum August 2022 at KayBee farm (TFA President's farm). The event was attended by 24 people including stakeholders from TFA, SPC, Min of Fisheries and USP.

**October 2022** PARDI-2 are members of the steering committee for the development of the next National Sustainable Tourism Framework commencing in October.

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## 9 Conclusions and recommendations

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### 9.1 Conclusions

PARDI-2 has made a significant contribution to agribusiness awareness and capacity in Fiji and Vanuatu (specifically for the agritourism, honey and tilapia industries). We have delivered impact at the individual agribusiness enterprise and industry association levels, as well as helped shape and reform enabling national policies<sup>39</sup>. In seeking to improve agribusiness capacity in the Pacific, it is important to realise there has been limited<sup>40</sup> historical agribusiness donor investment in the region. This is reflected in low farmer and business awareness of agribusiness best practice, limited locally-relevant agribusiness technical resource material, and emerging agribusiness extension support services. A key lesson from PARDI-2, (and possibly also reflected in PARDI 1), are the complexities and challenges associated with developing sustainable agribusiness development outcomes in the Pacific. Experience gained through PARDI-2, highlights the critical importance of adopting a highly focused approach (i.e. few and targeted industries, and deeper engagement), working in partnership with the private-sector, having an adaptative impact pathway, and an appropriate-level of technical agribusiness expertise within the project team.

Our agribusiness support for the Fiji and Vanuatu agritourism sector proved highly successful. While COVID-19 restrictions (in early 2020) effectively closed the Pacific international tourism sector, it also created an environment for change. In Fiji and Vanuatu, tourism businesses and supporting agencies became more responsive to new ideas and approaches to retain business viability. In Fiji, PARDI-2 agribusiness interventions tended to be at the individual enterprise-level, (based on new or improved products, better consumer experience, and enabling business-to-business partnerships to develop). This final report provides evidence of numerous successful agritourism business outcomes and a positive industry impacts. Notable achievements include improved business practice in Bulaccino Farm, Bula coffee, Namosi Eco Retreat, Waitika Farm, Mama's Mushrooms, and Marama Niu. In Vanuatu, there was a greater focus on promoting industry cohesion, supporting local agribusiness industry leaders, and enabling a more effective policy environment. Notable achievements include co-participating in the [Vanuatu Sustainable Tourism Policy 2019-2030](#), having a key role in the development of the Food Tourism and Agritourism Initiative (Produktif Turism Blong Yumi), and establishing and launching the Vanuatu Agritourism Association. These achievements provide potentially long-term and self-sustainable agritourism sector impacts in Vanuatu

In support of the Fiji honey sector, we worked closely with the Fiji Beekeepers Association to improve enterprise business practice, raise awareness of product marketing, and build capacity in the Association. We developed various agribusiness support tools (such as the [intermediate](#) and [advanced](#) beekeeping profitability accounting tool; and Honey Tool Kit), provided tailored marketing training (i.e. product branding, packaging and marketing webinars, workshops, and extension resource material; and promoted value adding honey opportunities), and supported the Fiji Beekeeper Association to have a greater industry leadership role (i.e. secured supplementary funding for the Association, technical support and training was delivered with the Association).

The Fiji honey industry (based on investment in new beekeepers and hives) is growing - as hive productivity lifts, disease management improves, and the contribution to household income is better understood. Honey sales and the development of innovative value-added products are also showing positive signs. However, the standout challenge for the industry is the need to increase

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<sup>39</sup> Vanuatu.

<sup>40</sup> Relative to international donor investment in productivity and sustainable production practice.



domestic consumption and expand honey placement in organised market channels. We believe the Fiji honey industry needs further agribusiness technical support. This should include training and capacity-building in doing business with the supermarket sector, programs for select companies to design retail-ready products and then practical testing consumer demand in supermarkets, and product placement (via dedicated merchandising hubs) to test the rate of sale. Also needed is a Honey Code of Practice that includes packaging, bottling and labelling; a Fiji standard for honey; adoption of minimum food safety practices for small-scale bottlers and packers; and HACCP food safety certification for consumer brand owners. Given Fiji honey is an emerging small industry and operates in an increasingly competitive global food industry, it (through the Fiji Beekeepers Association) needs to develop a sector plan and roadmap for the future.

The development of a viable Fiji tilapia industry has been a long-term priority, involving the efforts of multiple technical specialists, donors and government agencies. In spite of this, the Fiji tilapia industry has failed to thrive. Central to our agribusiness support for tilapia, was the view that industry development is impeded by a lack of product awareness and little market demand, particularly in the high-end consumer markets. We undertook value chains studies, market assessments, developed technical resource material and provided capacity building support to the association. Our Lautoka live fish market demonstrations and tilapia food service trials provided important market-information, and also served to raise consumer and service industry awareness of the benefits of farmed tilapia. Important achievements of the project was identifying priority markets (resorts), demonstrating tangible consumer and market demand, and the Tilapia Compendium. However, further agribusiness market-orientated technical and capacity building support is clearly needed. The Tilapia Fiji Association must remain as a key industry development partner moving forward.

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## 9.2 Recommendations

Lessons learnt from the AGB/2014/057 PARDI 2 project:

- Adaptive project design and management is critical when undertaking agribusiness research for development in the Pacific, especially given the nature of agri-business challenges and the need to rapidly respond to emerging business opportunities and private sector partnerships. This was key theme of PARDI-2 and the prior PARDI-1 and is considered a key contributor to their project success.
- In the Pacific, many of the successful agribusiness ventures and local enterprises have been the result of multiple donor engagement, involving either parallel value chain interventions, or historical or sequential support. Often such intra-donor collaboration opportunities only emerge during project implementation stage. Greater emphasis should be given to exploring inter-donor collaboration during the design phase of Pacific agribusiness projects, particularly given the presence of several long-term donor-led agribusiness support programs and initiatives in the region.
- One of the strengths of PARDI-2 was the concurrent engagement with government agencies, NGOs and private sector peak bodies. This was an important element in enable research activities to progress through to policy development.
- In project design, careful consideration should be given to the scope or breadth of the work to be undertaken. A broad approach across several focus areas can offer numerous potential beneficiaries, but time and logistical constraints within the research team may result in comparatively shallow research and focus group engagement. Conversely, deeper engagement with fewer focus areas can result in a smaller number of beneficiaries, but with more definitive findings and enduring legacy. The challenge PARDI-2 needed to overcome was that the project design initially commissioned by ACIAR sought a broad approach based on documenting best practice with the intent to extending key learnings to a wide and diverse range of

industries, whereas the mid-term review alternatively sought to direct the project towards a more focussed approach and demonstrative short-term business impacts.

- Mid-term project reviews should be conducted reasonably early in the project cycle for Pacific agribusiness project given the complexities and fluidity of private sector engagement. A change in the ACIAR RPM alignment should also be considered a possible trigger for a mid-term review, given the potential for adjustment in project design, methodologies, and industry engagement strategies.

To ensure Vanuatu's continued leadership in agritourism, fostering sustainability and positive contributions to the local economy, future actions are necessary to maintain momentum, sustain support and collaborative efforts for the transformed Vanuatu agritourism sector. These include:

- Enhancing agritourism-related policies through ongoing collaboration with the Vanuatu Agritourism Association.
- Providing continuous support to the association, including financing positions, capacity-building, funding for meetings, and facilitating learning opportunities.
- Continuing to articulate the definition of agritourism, emphasising authentic experiences.
- Supporting Regenerative Agritourism standards and certification, emphasising the recognition of traditional farming systems and biodiversity.
- Avoiding mono-sector projects that focus solely on one sector, rather emphasise the importance of maintaining crop diversity and resilience.
- Actively participating in the Global Agritourism Network (GAN) Pacific Committee to leverage global recognition and strengthen international collaborations.
- Integrating agritourism and diversified business models into Vanuatu's tourism recovery strategy for sustained economic impact.

To increase and expand on the impacts ACIAR projects have made in strengthening the domestic honey industry in Fiji the following actions are recommended in future projects:

- Formalise national beekeeping industry boards.
- Develop a 5-year R&D industry strategy.
- Prioritise long-term planning, industry collaboration, and strategic research for unlocking Fiji's beekeeping sector's full potential.
- Capitalise on the global positioning of Pacific honey products.
- Conduct trial demonstration chains for new categories.
- Provide targeted capacity building for associations.
- Emphasise strategic planning, continued education, and collaboration with retail buyers and supplier networks.

### **Overall recommendations**

Pacific agribusiness is a highly complex and challenging operating space. There are social and cultural considerations possibly unique to the region, a small population and consumer base, little critical infrastructure, challenges with gaining start-up capital, a nascent government enabling policy landscape, and an agricultural sector concurrently facing significant production and sustainability challenges. However, there are also many examples of highly successful Pacific-led agribusiness innovation, and a new generation of agri-business entrepreneurs.

Our efforts in Vanuatu and Fiji clearly demonstrate that effective Pacific-led agribusiness partnerships between the private sector, communities and local Government are possible. Future investment in Pacific agribusiness needs to prioritise better consulting the Pacific agribusiness sector and local agri-entrepreneurs in terms of investment priorities, engagement and adoption pathways and strategies. Moreover, these critical stakeholders must be considered critical contributors to the project design.

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## 13.2 List of publications produced by project

- Bush, D., Brophy, W...Thomson, L. (2020). Oil yield and composition of young *Santalum yasi* in Fiji and Tonga . *Australian Forestry*, 83(4), pp. 238-244. (This study was conducted in conjunction with ACIAR Project FST2016-158)
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- Thomson, L.A.J., Bush, D. and Lesubula, M. (2020). Participatory value chain study for *yasi* sandalwood (*Santalum yasi*) in Fiji. *Australian Forestry*, 83(4), pp.227-237. (This study was conducted in conjunction with ACIAR Project FST2016-158)
- Waqairatu-Waqainabete, S. and Kaumaitotoya, L. (2021). Women and the business of aquaculture: A case for women tilapia farmers in Fiji. *Women in Fisheries Information Bulletin*, Sep (34), pp. 4-8.

# 11 Appendixes

## 11.1 Appendix 1: Key outputs

<b>Agribusiness</b>
<ul style="list-style-type: none"><li>• <a href="#">An assessment framework for agribusiness interventions</a> - A framework for identifying agribusiness development opportunities and measuring livelihood quality was developed and documented in a report</li><li>• <a href="#">A tool for measuring livelihood</a> improvement - a checklist to assess the economic, socio-economic and environmental impacts of proposed research. It is designed to flag any areas of concern that may impact the success and sustainability of research interventions</li><li>• <a href="#">Assessment tool guidance document</a></li><li>• <a href="#">Pacific Agribusiness - Learning from survivors! A synthesis of factors that underpin the success and survival of agribusinesses in the Pacific</a> - A report based on individual case studies of successful agribusinesses - a resource for agribusinesses, researchers and partners highlighting success factors for sustainable agribusinesses.</li><li>• <a href="#">Agriculture value chain guide for the Pacific Islands (PARDI 2 technical contribution)</a></li><li>• <a href="#">Adopting and adapting the principles of participatory guarantee systems for local quality assurance systems in conventional agriculture</a> – discussion paper</li><li>• <a href="#">Understanding and mitigating risks for Pacific Islands Agribusiness</a> - Report prepared by ACIAR/PARDI2 agribusiness intern, Manoj Kumar published in <i>Australian Agribusiness Perspectives</i> journal in 2019</li><li>• <a href="#">Agribusiness Masterclass - Nadi, Fiji 2019 report</a></li><li>• AMC Final Report 2022: <a href="#">Highlighting approaches to Honey and Tilapia sector development (Fiji)</a></li></ul>
<b>Agritourism</b>
<ul style="list-style-type: none"><li>• <a href="#">Agritourism Experiences: a situational analysis - Jun 2020</a></li><li>• <a href="#">Fiji Agritourism Product development report 2020</a></li><li>• <a href="#">Fiji Agritourism Talanoa Workshop report Nadi 2019</a></li><li>• <a href="#">Fiji Agritourism Talanoa 2 workshop report 2020</a></li><li>• <a href="#">Agritourism Start Up Guide 2021</a></li><li>• <a href="#">Fiji Agritourism Support Programme case studies 2022</a></li><li>• <a href="#">Fiji Agritourism Experiences Checklist 2021</a></li><li>• <a href="#">Vanuatu Agritourism Product Development Report 2021</a></li><li>• <a href="#">Vanuatu Agritourism Business support week Report April 2021</a></li><li>• <a href="#">Produktif Turism Blong Yumi Initiative Progress Report FEB SEP2021</a></li><li>• <a href="#">Vanuatu Sustainable Tourism Policy 2019 2030</a> (contribution by Dr Cherise Addinsall, PARDI2)</li><li>• <a href="#">Vanuatu Sustainable Tourism Strategy 2021 2025</a></li></ul>
<b>Tilapia</b>
<ul style="list-style-type: none"><li>• <a href="#">Tilapia Farmers Have Their Say National Consultation Workshop, 18th July 2019, Nadi: outcomes report</a></li><li>• <a href="#">An assessment of fish supply for food service: Segregation, Documentation and Securing of Large Fish Supply for Food Service Research</a></li><li>• <a href="#">Live Tilapia Market Demonstration Pilot Lautoka, Fiji - Final Report</a></li><li>• <a href="#">Market demonstration of tilapia in Lautoka/West: live fish and food service – Ppt presentation</a></li><li>• <a href="#">Marine Fish Market Analysis to Determine Factors Influencing Tilapia Marketing</a></li><li>• <a href="#">The Tilapia Compendium</a></li><li>• <a href="#">Determining the effectiveness of social media Marketing of Tilapia Fish in the Fiji Islands - Student report</a></li><li>• <a href="#">Tilapia Efficacy Research for Food Service demonstration report</a></li><li>• <a href="#">Why they must be counted: Significant contributions of Fijian women fishers to food security and livelihoods</a> - paper published in journal <i>Ocean and Coastal Management</i> Feb 2021</li><li>• <a href="#">Women and the business of Aquaculture: a case for women tilapia farmers in Fiji</a> - paper published in the <i>Women in Fisheries Bulletin (Sep 2021)</i></li></ul>

- [Valuing the critical roles and contributions of women fishers to food security and livelihood in Fiji – paper published in the \*Women in Fisheries Bulletin\* \(Mar 2020\)](#)
- [Talking aquaculture and fisheries in a Pacific Connect talanoa](#)

## Honey

- [Value chain analysis of honey production in Fiji](#)
- [Honey Consumer Preferences in Fiji report](#)
- [Fiji Honey Sector Enterprises and Market Channel Data report](#)
- [Honey value added product workshop report Oct 2022](#)
- [Honey Marketing and Branding Mentoring Program Pilot report](#)

Honey training tool kit:

- [Honey Branding ppt](#)
- [Honey Packaging ppt](#)
- [Honey Labelling ppt](#)
- [Fiji Consumer Preferences of Honey ppt](#)
- [Introductory](#) and [Advanced](#) Beekeepers Business Profitability and Accounting tools

Resources for beekeepers / honeybee enterprises:

- [Honey Branding, Marketing, Distribution and Packaging ppt](#)
- [Honey Labelling ppt](#)
- [A smallholder guide to honey branding and marketing](#)
- [Loving Islands - Bee products training workshop](#) video on value added bee products
- [Honey Branding](#) webinar recording
- [Honey Packaging](#) webinar recording
- [Honey Labelling](#) webinar recording
- [Honey Quality Assurance](#) webinar recording

## Other agriculture resources

Breadfruit

- [Fiji Breadfruit Manual](#)
- [The breadfruit compendium](#)

Bamboo

- [The Bamboo Agribusiness Compendium](#)

Kava

- [An assessment of the Internal Control System - Fiji Kava](#)
- [Kava production internal control system manual 2020.](#)

Sandalwood

- [Participatory value chain study for yasi sandalwood \(\*Santalum yasi\*\) in Fiji](#)
- [Oil yield and composition of young \*Santalum yasi\* in Fiji and Tonga](#)
- [Looking ahead - global sandalwood production and markets in 2040, and implications for Pacific Island producers](#)
- [Domestication provides the key to conservation of \*Santalum yasi\* - a threatened Pacific sandalwood](#)
- [Santalum yasi \(sandalwood\) participatory value chain in Fiji, 1984-present](#)
- [Pacific sandalwood growers guide \(2022 co-author contribution\)](#)

Coconut

- [Value chain analysis Rabi coconut syrup](#)