Pacific Horticultural & Agricultural Market Access Plus Program

Supported by Australia & New Zealand

Pacific Export Context Analysis – 2022

June 2022

Australian Aid

NEW ZEALAND FOREIGN AFFAIRS & TRADE Aid Programme

Pacific Export Context Analysis - 2022

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Acronym List

Acronym	Description
ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AIFFP	Australian Infrastructure Financing Facility for the Pacific
ASF	African Swine Fever
BLP	Business Link Pacific
CRB	Coconut Rhinoceros Beetle
DAWE	Australian Department of Agriculture, Water and Environment
DFAT	Australian Department of Foreign Affairs and Trade
DSR	Debt Service Ratio
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
FAO	Food and Agriculture Organisation
FAW	Fall Army Worm
FDI	Foreign Direct Investment
FMD	Food and Mouth Disease
GDP	Gross Domestic Product
GEDSI	Gender Equality, Disability and Social Inclusion
GNI	Gross National Income
HACCP	Hazard Analysis Critical Control Point
HDI	Human Development Index
HS	Harmonised Commodity Description and Coding System
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
MDF	Market Development Facility
MFAT	New Zealand Ministry of Foreign Affairs and Trade
MPI	New Zealand Ministry of Primary Industries
NCDs	Non-communicable Diseases
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PACER	Pacific Agreement on Closer Economic Relations
PALM	Pacific Australia Labour Mobility
PECA	Pacific Export Context Analysis
PHAMA Plus	Pacific Horticultural and Agricultural Market Access Plus Program
PHOVAPS	Pacfic Heads of Veterinary and Animal Production Services
PICs	Pacific Island Countries
PICTA	Pacific Islands Trade Agreement
PIFON	Pacific Islands Farmers Organisation Network
PIPSO	Pacific Islands Private Sector Organisation
PP	Pacific Partnership
PPP	Purchasing Power Parity

Acronym	Description
PPPO	Pacific Plant Protection Organisation
PPSW	Pacific Private Sector Window
PSDI	Private Sector Development Initiaitve
PTI	Pacific Trade and Invest
PWD	Persons with Disability
RAMSI	Regional Assistance Mission to the Solomon Islands
RSE	Recognised Seasonal Employer
SCHS	Sea Container Hygiene System
SME	Small and Medium Enterprise
SOI	Southern Oscillation Index
SPC	Pacific Community
SPS	Sanitary and Phytosanitary
TFA	Trade Facilitation Agreement
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNICEF	United Nations Childrens Fund
USD	United States Dollar
WB	World Bank
WHO	World Health Organisation
WTO	World Trade Organisation

Exchange Rates (May 2022)

Country	Currency		Units/USD	Units/AUD	Units/NZD
Fiji	Fiji Dollar	FJD	2.15	1.52	1.35
Kiribati	Australian Dollar	AUD	1.42	1.00	0.91
PNG	Kina	PGK	3.44	2.42	2.21
Samoa	Tala	WST	2.57	1.81	1.65
Tonga	Pa'anga	TOP	2.24	1.58	1.44
Solomon Islands	Solomon Islands Dollar	SBD	8.01	5.65	5.16
Vanuatu	Vatu	VUV	112	79	72

Source: Oanda Currency Converter https://www1.oanda.com/currency/converter/

Map of the Pacific Region

1. Executive Summary

1.1 Overview of the PECA

The Pacific Export Context Analysis (PECA) is prepared annually by the Pacific Horticultural and Agricultural Market Access Plus (PHAMA Plus) Program. It presents an overview of the social, economic and business conditions and trends in the Pacific Islands, including indicators that influence agriculture and horticulture export performance, and other issues that are critical for Pacific Island exporters and their suppliers. The PECA is prepared for use by the Australian Department of Foreign Affairs and Trade (DFAT) and the New Zealand Ministry of Foreign Affairs and Trade (MFAT) in their policy dialogue with partner governments and regional organisations and other stakeholders.

This June 2022 version of the PECA is the last in the current phase of PHAMA Plus. It reports on the extensively altered export context under the COVID-19 pandemic, initially reported in the October 2020 edition, and which has spanned most of the current phase. It also describes the measures PHAMA Plus has taken to adapt to the challenges and opportunities presented by the pandemic and reflects on ways in which the relevance and impact of the Program can be enhanced as it transitions to a new phase from July 2022.

COVID-19 has caused unprecedented disruption to domestic and international trade in the Pacific Region. This crisis has coincided with several natural disasters and outbreaks of two serious pests and diseases – African Swine Fever (ASF) and Fall Army Worm (FAW). While the Pacific has so far escaped the worst of the public health impacts of the COVID-19 pandemic, the prevention and control measures have had far-reaching secondary impacts, including disruptions to marketing arrangements for crops, livestock, fisheries and forestry products, with restrictions on travel and a sharp economic contraction across the region and its trading partners.

The PECA provides an update on the fundamental social and economic context for the operation of agricultural marketing pathways. It also considers the impact of COVID-19 and concurrent natural disasters on PHAMA Plus stakeholders and how the Program is responding to these events.

1.2 Regional Context

- **Regional Agreements.** The regional context is shaped by the multiple regional and sub-regional agreements influencing trade within and from the Pacific region. PHAMA Plus is supporting the Small Island States that are signatories of the PACER Plus agreement (Kiribati, Cook Islands, Nauru, Niue and Tuvalu) as it is rolled out over the coming years.

- **Policy and Strategic Framework:** All of the PHAMA Plus countries have agricultural sector plans, policies or strategies which advocate increasing agricultural exports, recognising also the importance of food self-sufficiency, improved nutrition and import replacement. Disruptions to both international and domestic marketing channels during the COVID-19 pandemic, and recent food price escalation, have raised awareness about the fragile food security status of many PICs.

1.3 Economic Overview

- **Economic Output:** Total GDP of the PHAMA Plus countries reached USD 34 billion in 2019 of which 89% came from PNG and Fiji. However, the region experienced a sharp contraction of GDP during 2020 with the onset of the COVID-19 pandemic. Further GDP declines in 2021 are yet appear in the data but IMF forecasts point to a decline of around two percent. The contribution of agriculture (including farming, fisheries and forestry) is mostly between 10% and 20% of GDP except in the Solomon Islands where it is much higher due to income from forestry and fisheries.

- **Economic Growth Projections:** The COVID recession has been far deeper in the PHAMA Plus counties than in the Pacific Rim trading partners, with an average of 5.1% contraction in 2020 compared to 2.0%; and more prolonged with further contraction in 2021, whilst the Pacific Rim economies rebounded strongly. Projections for 2022 suggest strong recoveries in Fiji and PNG but sluggish recovery in Samoa and Vanuatu, and continuing contraction in Tonga and Solomon Islands.

- **Incomes and Human Development:** Gross National Income (GNI) per capita (in 2017 dollars) ranges from USD 2,250 in Solomon Islands to USD 13,000 in Fiji. Using the broader Human Development Index, Fiji, Samoa and Tonga are classified as high human development countries, and others are medium.

- **External Debt:** In 2020 PNG and Fiji accounted for 85% of the total of USD 7. billion owed (public and private debt) to external lenders. As a percentage of GNI, Samoa, Tonga and Vanuatu are much more heavily indebted than the other countries. Since the onset of the pandemic several countries, particularly Fiji and Samoa, are facing increasing debt servicing challenges.

1.4 Revenue and Trade

- **Foreign Direct Investment (FDI):** Prior to COVID-19, Fiji and Vanuatu had strong FDI flows, but FDI for the other countries is limited and volatile. FDI has softened during the pandemic, but not markedly.

- **Remittances:** The importance of remittances is amongst the highest in the world in Tonga (37% of GDP) and Samoa (19% of GDP), and is also a key source of revenue in Fiji. Remittance flows are vulnerable to economic shocks, although the impact of the COVID-19 crisis was contrary to expectations with an overall 16% increase in 2020, the largest annual increase on record.

- **Aid Flows:** Official Development Assistance (ODA) is particularly important in Solomon Islands, Tonga, Samoa and Vanuatu. Solomon Islands received very high levels of ODA support during the period of the Regional Assistance Mission to Solomon Islands (RAMSI) and has now reverted to levels similar to Samoa, Tonga and Vanuatu.

- **Merchandise Trade:** The balance of trade in merchandise is consistently negative in all countries other than PNG, where growing exports of minerals, energy and agricultural commodities (palm oil, coffee, cocoa and coconut products) generate strong trade surpluses. Solomon Islands generates occasional trade surpluses.

- **Food Trade:** The PHAMA Plus countries import food worth around USD 1.1 billion per annum, with exports of around USD 2.5 billion. The positive balance is mainly due to due to PNG food exports, principally palm oil, cocoa, coffee and coconut products, plus fish from Solomon Islands and sugar from Fiji. In per capita terms Samoa and Tonga have significant food trade deficits.

- **Dependence on Imported Food:** For both calories and protein the Pacific Islands (apart from PNG) are more heavily dependent on imports than the South-East Asian Countries. Fiji, and Samoa rely for on imports for more than half their food requirements in terms of calories, protein or both. For Solomon Islands and Vanuatu import dependence is mostly above 40%.

- **Household Food Purchases:** Despite the high percentage of people living in rural areas, Pacific Island households are heavily dependent on purchased food. In all PHAMA Plus countries households derive less than half their food from own production – evidence of the erosion of traditional self-sufficient subsistence-oriented lifestyles. Much of the purchased food consists of imported items of poor nutritional value.

- **Commodity Focus:** PHAMA Plus has diversified from its original focus on agricultural and horticultural commodities and now supports a diverse portfolio of interventions spanning agriculture, livestock,

fisheries and forestry products and their derivatives. In value terms, the major export commodities are timber, vegetable oils, seafood, meat and fish preparations, coffee and cocoa.

- **Export Destinations:** The major export destinations (in value terms) are Pacific Rim countries – China, Australia, Japan, Taiwan, and Korea. Intra-regional trade is limited compared to the larger Pacific Rim markets.

- **Trade with Australia/New Zealand:** There are large imbalances in trade flows between the PHAMA Plus countries and Australia/New Zealand. If gold exports are excluded, Australia's exports to PHAMA Plus countries exceed its imports by 4.7 times. The imbalance is even more pronounced for agricultural commodities where Australia's exports are more than seven times its imports. New Zealand's trade with the PHAMA Plus countries is even more asymmetric, with total exports being 6.3 times imports. Overall, during the five years 2017-2021 Australia and New Zealand exported agricultural commodities to the PHAMA Plus countries worth an average of USD 649 million, whilst importing only USD 99 million.

- **Commodity Prices:** The initial impact of COVID-19 on global commodity prices was moderately negative. However, from mid-2021 there has been a strong resurgence continuing into 2022 affecting both rural and non-rural commodities. The resurgence is contrary to earlier expectations of weakened demand associated with global economic contraction foreshadowed in earlier editions of the PECA. The Ukraine war has further boosted prices, particularly for cereals and vegetable oils.

1.5 Demography

- Total **population** of the six PHAMA Plus countries is an estimated 11.6 million, of which around 96% live in the Melanesian countries. Population growth is also highest in most of the Melanesian countries (2.7% in Solomon Islands, 2.6% in Vanuatu, 2.0% in PNG but only 0.6% in Fiji).

- **Labour force** participation is the highest in Solomon Islands, Vanuatu and Fiji and much lower in PNG and Samoa. Across all countries, female participation in the labour force is lower than male. Only Solomon Islands and Vanuatu have female participation rates above 50%.

- **Migration:** Fiji, Kiribati, Samoa and Tonga are experiencing high rates of out-migration with large diaspora communities. PNG, Solomon Islands and Vanuatu have small out-migration rates with net inward migration in some years.

- **Seasonal worker schemes** hosted by Australia and New Zealand are popular among younger people and affect the availability of labour in rural areas of some PHAMA Plus countries. These schemes are now being re-activated after several years of disruption by the COVID-19 pandemic.

1.6 Business Environment

- According to the **Ease of Doing Business** Index Fiji, Samoa, Tonga and Vanuatu are in the mid-range of countries. Solomon Islands and PNG are lower in the rankings. The ease of doing business for women is lower than it is for men across the Pacific.

- **Cost of Trade:** The cost of trading between countries is a key issue for PICs and explains why intra-PIC trade flows are generally weak. Further efforts are needed to reduce costs through modernising ports, upgrading logistics, simplifying procedures and automated clearances.

- **Shipping Costs:** Whilst commodity prices are strong, a significant part of the benefit has been offset by massive inflation in global shipping costs. The cost of shipping a sea container increased five-fold between Mid-2020 and September-October 2021. Freight rates have eased somewhat since then but are still four times pre-pandemic levels. Air freight charges have also soared.

- **Biosecurity:** Biosecurity regulations have a significant impact on trade between the PICs and Australia/New Zealand and other destinations. Whilst many items have market access protocols in place, most of these have not been used, and compliance capacity is generally weak. Market access for fresh products is much more restrictive than for processed products. Most access protocols are generic, i.e. apply equally to all exporting countries.

1.7 Gender Equality, Disability and Social Inclusion (GEDSI)

- **Women, Youth and Disability:** Across the Pacific, women make important contributions to agriculture and rural livelihoods and play a vital role in the care of households and communities. However, persistent gender inequalities, hamper the realisation of women's human and productive potential. Youth and people with disabilities also have low rates of employment and economic participation.

- **PHAMA Plus Approach:** PHAMA Plus has established a framework of four GEDSI drivers: (i) addressing adverse cultural norms; (ii) strengthening visibility, voice and representation; (iii) changing business culture and practice; and (iv) building assets and access to assets. These drivers provide a framework within which women, youth, persons with disabilities and remote communities are supported in their roles as market actors.

1.8 Vulnerability to Shocks

- **Natural Disasters:** The Pacific region is highly vulnerable to climate change and natural disasters. Traditional coping mechanisms usually enable communities and countries to recover from these events quite quickly, even though there is room for improvement in preparedness and response strategies. However, the COVID-19 crisis is unprecedented in both extent and severity and coincides with several major pest and disease outbreaks severe tropical cyclones and a volcanic eruption and tsunami.

- **Pests and Diseases:** Several recent events have exposed the PIC's vulnerability to pest and disease incursions that could have catastrophic impacts on the livelihoods of rural communities.

- **Food Price Shocks:** The PHAMA Plus countries are currently experiencing a food price shock, equal in magnitude to the 2007-08 global food crisis, but exacerbated by escalating transport costs and logistic bottlenecks.

1.9 COVID-19

- **Overview:** The Pacific Islands remain less affected in human health terms by COVID-19 than most other parts of the World. Whilst case numbers have soared during the last 12 months, reported cases in the PHAMA Plus countries have averaged only 1.4% of population since the onset of the pandemic, compared to 18.7% in the rest of the Pacific, although under-reporting in PNG and some other countries may have contributed to this apparently low incidence. In comparison, Australia and New Zealand have incidence rates of 25.1% and 20.2% respectively.

- **Impacts:** Remoteness and isolation initially protected most PICs from the worst of the pandemic and the delayed arrival of the virus has given them time to prepare. However, whilst the health impacts have been less than in other parts of the World, the impact of the necessary control measures in the PICs themselves, and in their trading partners, as well as the steep global economic downturn, has adverse and far-reaching impacts on PHAMA Plus stakeholders. The impacts are now becoming evident in official statistics and reports, and show that the following apply in varying degrees in all of the PHAMA Plus countries:

- A steep reduction in economic activity in the PICs and their trading partners, falling incomes and declining demand for a broad range of goods and services. The Pacific Rim countries experienced strong economic recovery in 2021, which is continuing through 2022. However, all the PICs (apart from PNG) experienced a second year of recession in 2021 and are only just beginning recovery in mid-2022.
- Significant deterioration in business confidence at all levels.
- Rising urban unemployment with some urban residents returning to their villages and reverting to a semi-subsistence lifestyle.
- Restrictions on the movement of people and goods have impacted the capacity of PICs to export agricultural products, particularly perishable produce through both formal/commercial and informal marketing pathways to diaspora communities.
- Multiple factors associated with the pandemic have eroded the PIC's already fragile food and nutrition security.
- Countries with significant tourism sectors are additionally affected. Fiji, as the most-tourism dependent economy, is worst off, followed by Vanuatu.
- Increased difficulty in accessing financial services, as financial institutions become more cautious about lending to agricultural producers and exporters.
- Increasing pressure on budgets and limited capacity of PIC Governments to adopt fiscal stimulus measures.
- Increased rates of domestic violence and inability of women to access services due to lockdowns and other restrictions.
- All of the above disproportionately affect poor and marginalised groups via reduced incomes, food and nutrition security and other dimensions of sustainable livelihoods.

- **Vaccination:** Vaccination coverage will be key to living with COVID in the coming years. Samoa and Tonga have achieved near 100% double dose coverage, Fiji around 90%, but only 65% and 35% respectively in Vanuatu and Solomon Islands. PNG is remains by far the most vulnerable with only 3% of people having received a double dose.

1.10 PHAMA Plus Response

- The PHAMA Plus response is aligned with DFAT's Partnerships for Recovery approach to the COVID crisis.
- PHAMA Plus's support for economic recovery has focused on damage limitation, recovery and re-building; as well as improving the resilience of production systems and supply chains to mitigate the impact of future crises or disasters. These responses are directed towards agricultural production for income generation and food/nutrition security; as well as continuing efforts to facilitate trade in food and agricultural commodities under PACER Plus through improved biosecurity and sanitary/phytosanitary services.

2. Introduction

2.1 Purpose of the PECA

The Pacific Export Context Analysis (PECA) presents an overview of the social, economic and business conditions and trends in the Pacific Islands, including indicators that influence agriculture and horticulture export performance (investment, regulatory and business environment, compliance and biosecurity issues, demography, climate, commodity prices, development assistance) and other issues that are critical for Pacific Island exporters and their suppliers.

The PECA has been prepared for use by the Australian Department of Foreign Affairs and Trade (DFAT) and the New Zealand Ministry of Foreign Affairs and Trade (MFAT) in their policy dialogue with partner governments and regional organisations and other stakeholders. It is also intended to inform the planning and implementation of interventions under the Pacific Horticultural and Agricultural Market Access Program (PHAMA Plus). The analysis is based on monitoring and collation of existing information sources and research (see list of sources in Annex 1) as well as knowledge accumulated by PHAMA Plus and its predecessors since the first PHAMA phase commenced in 2011. This is the fifth edition of the PECA, previous versions having been completed in August 2019, June and October 2020, and June 2021.

This June 2022 version of the PECA is the last in the current phase of PHAMA Plus. It reports on the extensively altered export context under the COVID-19 pandemic, initially reported in the October 2020 edition, and which has spanned most of the current phase. It also describes the measures PHAMA Plus has taken to adapt to the challenges and opportunities presented by the pandemic and reflects on ways in which the relevance and impact of the Program can be enhanced as it transitions to a new phase from July 2022. Under the new phase the structure and content of the PECA will also be reconsidered with a view to enhancing its value a strategic instrument for agricultural marketing in the Pacific Region.

2.2 Regional Organisations and Agreements

PHAMA Plus is a multi-country, rather than regional program, but the regional context in which these countries exist is very relevant to export opportunities and performance. This includes the various regional organisations that receive development partner funding to provide technical and other advisory services to member countries, and represent member country interests in international forums. An overview of the seven regional organisations that are most relevant to the export environment is provided in Annex 2. Membership of these organisations is fairly consistent across the PHAMA Plus countries.

The regional context is also shaped by the multiple regional and sub-regional agreements influencing trade within and from the Pacific region (see Annex 2) for example, the Melanesian Spearhead Group Trade Agreement, the Pacific Agreement on Closer Economic Relations Plus (PACER Plus), Pacific Aid for Trade Strategy, Cotonou Partnership Agreement and European Union Economic Partnership Agreement. These agreements create opportunities (e.g. duty-free access) as well as challenges (e.g. rules of origin requirements) and in some cases also offer financial assistance mechanisms.

Beyond it's six core countries, PHAMA Plus is supporting the other signatories of the PACER Plus agreement (Kiribati, Cook Islands, Nauru, Niue and Tuvalu) as it is rolled out over the coming years. PACER Plus entered into force in December 2020, and PHAMA Plus has developed a PACER Plus Engagement Strategy that aims to pursue opportunities for intra-regional trade, and has initiated support for Kiribati, Niue and the Cook Islands, with scoping recently initiatied for Tuvalu. The PACER Plus Implementation Unit was established in Apia, Samoa in 2022 and is collaborating closely with PHAMA Plus.

PHAMA Plus has developed framework agreements that identify specific technical activities to support PACER Plus signatories as follows:

- A MoU has been signed with Kiribati, which provides a framework for PHAMA Plus support to Kiribati's public and private sectors to strengthen national capacity in relation to biosecurity and market access. Kiribati exporters will be assisted to maintain existing market access and gain access to new export market destinations for their products, including through the adoption of quality standards.

- A MoU has been agreed with Niue to facilitate agricultural trade and support development opportunities under PACER Plus by working with the public and private sectors to boost exports of agricultural, fresh and value-added products. Focus areas include: biosecurity; trade; production; market access pathways, quality and standards.

- The Cook Islands has entered into an agreement with PHAMA Plus for technical support to enhance agricultural trade and promote sustainable economic development. The agreement will promote, improve and facilitate access to regional and global trade in primary and value-added products and contribute to economic recovery from COVID-19.

  Consultations have been undertaken between PHAMA Plus and Tuvalu around the potential for supporting Tuvalu in agricultural trade under PACER Plus.

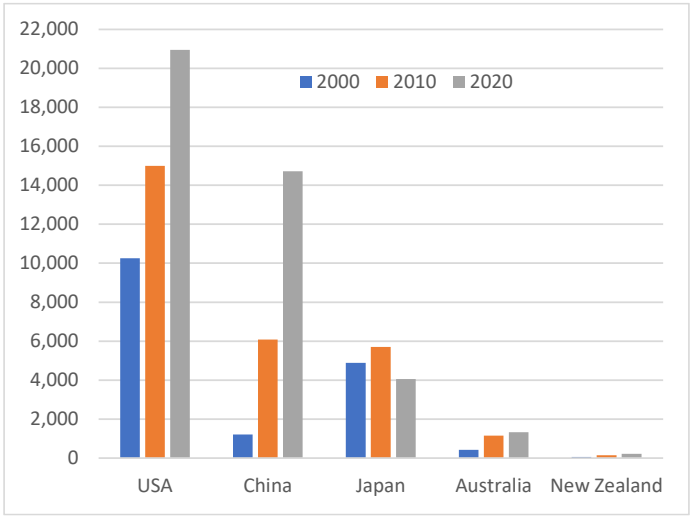
- A MoU has been signed with the Australian Department of Agriculture, Water and the Environment (DAWE) to develop opportunities to collaborate on growing agricultural trade between Pacific Island countries and Australia, through improved food security, better market access and biosecurity outcomes.

- PHAMA Plus and New Zealand's Ministry of Primary Industries (MPI) have initatied collaboration on trade facilitation with five Pacific countries by adopting a systems approach to enhance market access with a focus on facilitating increased trade in existing pathways for fresh produce into New Zealand.

2.3 Regional Economic Context

The PHAMA Plus countries are located in a dynamic and economically powerful hemisphere. The Pacific Rim countries of USA, China, Japan, Australia and New Zealand comprise half of global GDP, with USA and China contributing 84% of this. As shown in Figure 1, the outstanding change over recent decades has been the expansion of China's economic weighting in the region. China's share of GDP among the five Pacific Rim trade partners grew from 7% in 2000 to 34% in 2020 and will expand further in the post-COVID era. Australia and New Zealand's share has grown from 2.8% to 3.6% over the same period.

Figure 1. GDP (USD billions) of Major Regional Economies

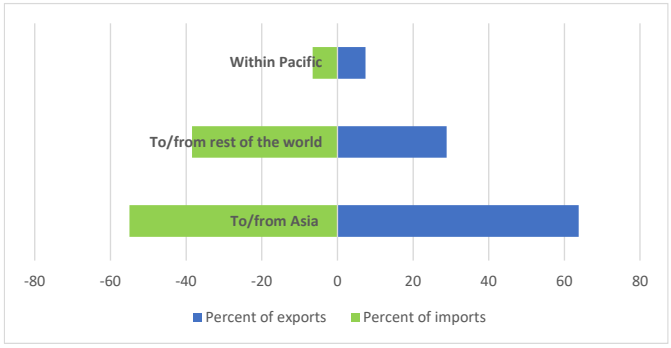


Source: World Bank World Development Indicators

The larger Pacific Rim countries have such a large appetite for imported food and agricultural commodities relative to the Pacific's capacity to supply, that changes in economic conditions are likely to have a limited impact on demand in the region, except for the globally traded commodities, for which they are large consumers. However, in the smaller Australian and New Zealand markets, economic conditions may affect demand for some items, e.g. through unemployment among diaspora communities during the COVID-19 crisis affecting their demand for imported produce from the Pacific.

Despite the efforts of several regional programs (including PHAMA Plus), regional organisations and the countries themselves, **intra-regional trade remains weak**. Figure 2 shows the percentage of all merchandise exports and imports from Pacific countries within and outside the Pacific region. Intra-FPacific trade is well under ten percent of the total in all cases, whilst trade with Asia represents half to two thirds of total two-way trade.

Figure 2. Inter and Intra-regional Trade to/from the Pacific (Average 2016-17)



Source: Adapted from the Asia-Pacific Trade and Investment Report, 2018

There are cases of intra-regional trade, such as kava exports from Vanuatu to New Caledonia and Kiribati, but generally exports go to the much larger markets around the Pacific Rim. Given the commonality in commodities and export markets, there are areas of competition between the Pacific Island Countries (PICs), for example root crop exports from Fiji, Samoa and Tonga to New Zealand.

2.4 Policy and Strategic Framework

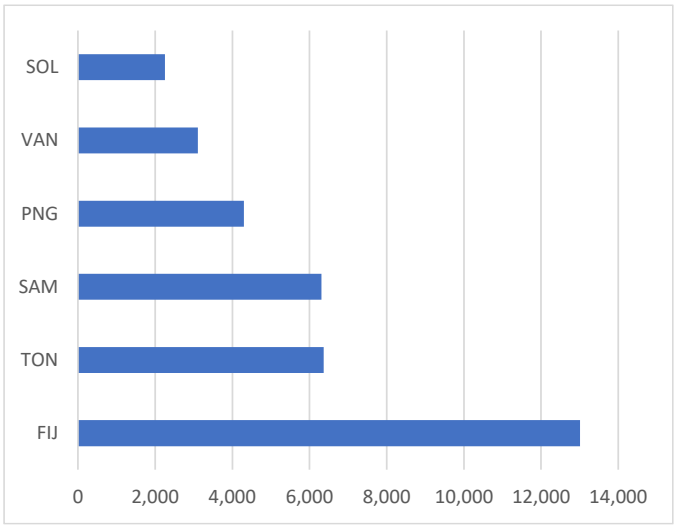
All of the PHAMA Plus countries have documented agricultural sector plans, policies or strategies, although some of these have expired and some are in the process of being updated or revised. These plans, policies and strategies are directly relevant to PHAMA Plus in that they all advocate increasing agricultural exports to some extent, recognising also the importance of food self-sufficiency, improved nutrition and import replacement. Disruptions to both international and domestic marketing channels during the COVID-19 pandemic, and recent food price escalation, have raised awareness about the fragile food security status of many PICs and there are signs that most countries are now increasing their focus on matters related food security and self-sufficiency.

3. Economic Overview

3.1 Economic growth and composition

Gross National Income (GNI) per capita[1] (in 2017 dollars) ranges from USD 2,250 in Solomon Islands to USD 13,000 in Fiji – see Figure 3. Expressing GNI in purchasing power parity (PPP) terms allows for differences in the purchasing power of income between countries. Using the broader Human Development Index (HDI), Fiji, Samoa and Tonga are classified as high human development countries, and others are medium.

Figure 3. GNI Per Capita 2019 (USD 2017 PPP)

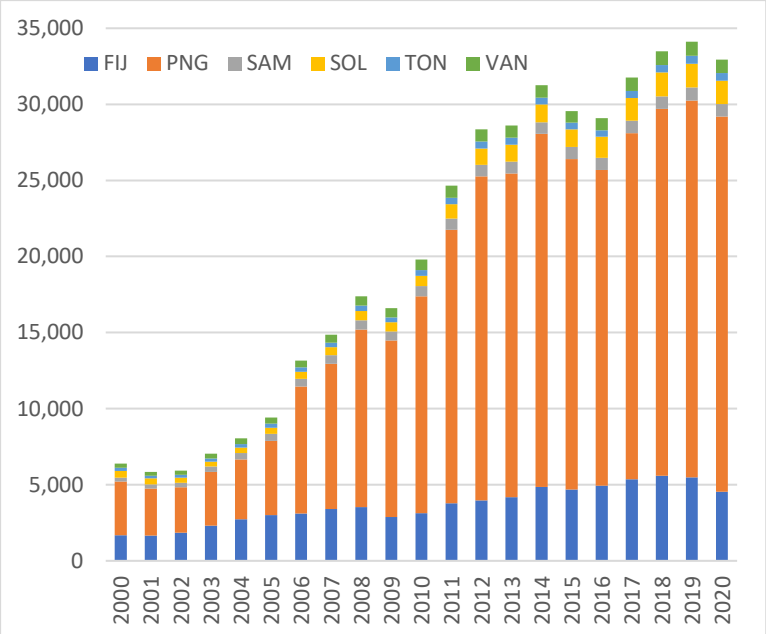


Source: UNDP 2020

The six PHAMA Plus countries experienced strong economic growth from 2002 until 2012, except for a pause during the global financial crisis, as shown in Figure 4. However, growth was volatile from 2012 to 2016 due to multiple factors including natural disasters, commodity price fluctuations, fiscal constraints, trade agreements, demographic changes, exchange rate fluctuations, etc. Economic growth in the region was strong in 2017-2019 (mainly attributable to PNG). However, as shown in Figure 4 below, the region experienced a sharp contraction of GDP during 2020 with the onset of the COVID-19 pandemic. Further GDP declines in 2021 are yet appear in the data but International Monetary Fund (IMF) forecasts point to a decline of around two percent.

[1] GNI measures the aggregate income of an economy generated by its production less the amount paid for the use of factors of production, expressed in constant USD at purchasing power parity (PPP).

Figure 4. GDP (USD millions) Across Six PHAMA Plus Countries



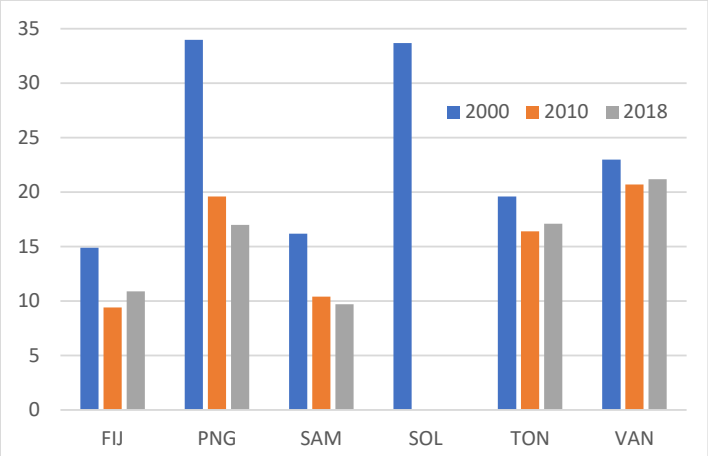
Source: World Bank World Development Indicators

Total GDP of the PHAMA Plus countries reached USD 34.4 billion in 2019, of which 89% came from PNG and Fiji. Since 2010, GDP growth has been strongest in Solomon Islands (during recovery from civil unrest and substantial aid flows) averaging over 9% per annum in nominal terms. Fiji and PNG have also experienced robust economic growth of 6-7% per annum, whilst the other four economies have grown at 2-3% per annum in nominal terms.

The modest economic growth rates in Samoa, Tonga and Vanuatu are attributable, among other things, to declines in agriculture and fisheries and, in the case of Samoa, closure of a key manufacturing enterprise that contributed to a contraction of GDP by 1.4% 2018. Both Vanuatu and Tonga experienced economic setbacks as a result of natural disasters. Vanuatu experienced significant economic recovery in 2017 and 2018 through growth in services (particularly tourism) and investments in construction/infrastructure; but growth was lower than in 2017 as a result of Cyclone Hola in March 2018 and the volcanic eruption in Penama Province. Cyclone Harold in April 2020 caused severe damage in Fiji, Solomon Islands, Tonga and Vanuatu at the same time as these countries were struggling to deal with the COVID-19 crisis. The Tonga volcanic eruption and tsunami in January 2020 has had a widespread impact that will be felt through 2022 and beyond.

Figure 5 shows the contribution of agriculture, fishing and forestry to GDP. The contribution is mostly between 10% and 20% of GDP, reflecting subsistence farming, low productivity levels and exposure to volatile weather patterns and natural disasters, compared to industry and services. Whilst recent data are incomplete (e.g. for Solomon Islands) the general picture is of declining relative importance of these sectors as other parts of the economies expand, particularly the service sectors. In Solomon Islands, the contribution of agriculture, fishing and forestry has been relatively high due to income from logging and tuna fishing. However, log exports are now in decline due to unsustainable harvesting levels. In most of the economies, the industry and services sectors are the key contributors to GDP. Much of the growth is driven by public expenditure, mineral extraction and the services sector (e.g. wholesale, retail and tourism). However, agriculture continues to be an important sector considering the need for economic diversification, food security and the involvement of a significant proportion of the population.

Figure 5. Contribution of Agriculture, Fisheries and Forestry to GDP (percent)



source: World Bank World Development Indicators

The IMF World Outlook for 2020 was generally positive for the Pacific Rim countries of USA, China, Japan, Australia, and New Zealand up until the onset of the COVID-19 crisis. However, in 2020 the IMF significantly downgraded GDP growth and employment projections, although the latest (April 2022) projections are not as bad as initial estimates. Table 1 indicates a sudden reversal in the long-term economic up-trend in the major trading partners of the PICs, but with GDP growth rebounding in 2021 and expected to continue growing up to 2027, although with a much lower contribution from China.

Table 1. IMF Economic Growth Projections for Pacific Rim Countries, April 2022 (Percent Change in Real GDP)

	Actual		Projected		
	2020	2021	2022	2023	2027
USA	-3.4	5.7	3.7	2.3	1.7
China	2.2	8.1	4.4	5.1	4.8
Japan	-4.5	1.6	2.4	2.3	0.4
Australia	-2.2	4.7	4.2	2.5	2.6
New Zealand	-2.1	5.6	2.7	2.6	2.3
Average	-2.0	5.1	3.5	3.0	2.4

Source: IMF World Economic Outlook: April 2022

Comparison between Tables 1 and 2 demonstrate that the COVID recession has been far deeper in the PHAMA Plus counties than in the Pacific Rim trading partners, with an average of 5.1% contraction in 2020 compared to 2.0%; and more prolonged with further contraction in 2021, whilst the Pacific Rim economies rebounded strongly. Projections for 2022 suggest strong recoveries in Fiji (due to resumption of tourism) and PNG (commodity exports) but sluggish recovery in Samoa and Vanuatu, and continuing contraction in Tonga (due to natural disaster) and Solomon Islands (civil unrest).

Table 2. IMF Economic Growth Projections for PHAMA Plus Countries, April 2022 (Percent Change in Real GDP)

	Actual		Projected		
	2020	2021	2022	2023	2027
Fiji	-15.2	-4.0	6.8	7.7	3.4
PNG	-3.5	1.7	4.8	4.3	3.0
Samoa	-2.6	-8.1	0.0	4.0	2.5
Solomon Is.	-4.3	-0.2	-4.0	3.2	3.0
Tonga	0.7	-0.7	-1.6	3.0	1.8
Vanuatu	-5.4	0.5	2.2	3.4	2.9
Average	-5.1	-1.8	1.4	4.3	2.8

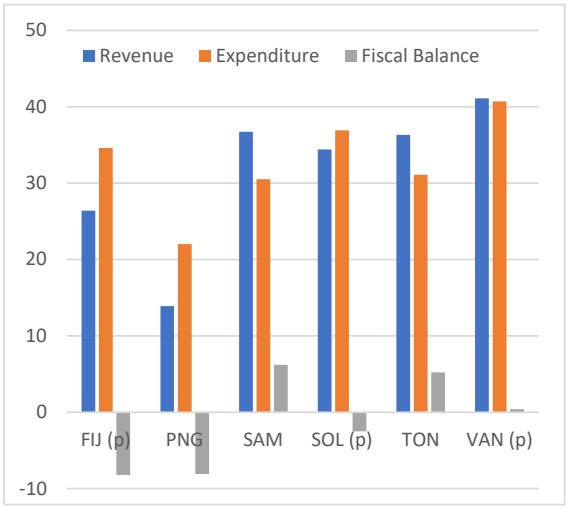
Source: IMF World Economic Outlook: April 2022

The most severe economic impacts of the pandemic have been in the two main tourist destinations, Fiji and Vanuatu. Based on the projections in Table 2 the economies of the PHAMA Plus countries are not expected to recover to pre-pandemic levels until around 2024, even later on a per-capita basis.

3.2 Fiscal Balance

Figure 6 shows that government revenues in the PHAMA Plus countries are mostly fairly high relative to the size of their economies, being between 26% and 40% of GDP in 2020. This compares to a range of 20% to 30% for most developed countries. However, in PNG revenues were only 14% of GDP due to the low level of tax collections. Fiji incurred a fiscal deficit of 3.4% of GDP in 2019, and other countries incurred small deficits or surpluses. Vanuatu achieved a fiscal surplus of 6.8%.

Figure 6. Government Revenue, Expenditure and Fiscal Balance, 2020 (Percent of GDP)



Source: ADB Basic Statistics 2021. p = preliminary estimate

3.3 Debt and Exchange Rates

Table 3 shows total external debt (public and private) for each of the PHAMA Plus countries in 2020. PNG and Fiji account for 85% of the total of USD 7.2 billion owned to external lenders, up from USD 5.4 billion in 2018. However, as a percentage of GNI, Samoa, Tonga and Vanuatu are more heavily indebted than the other countries.

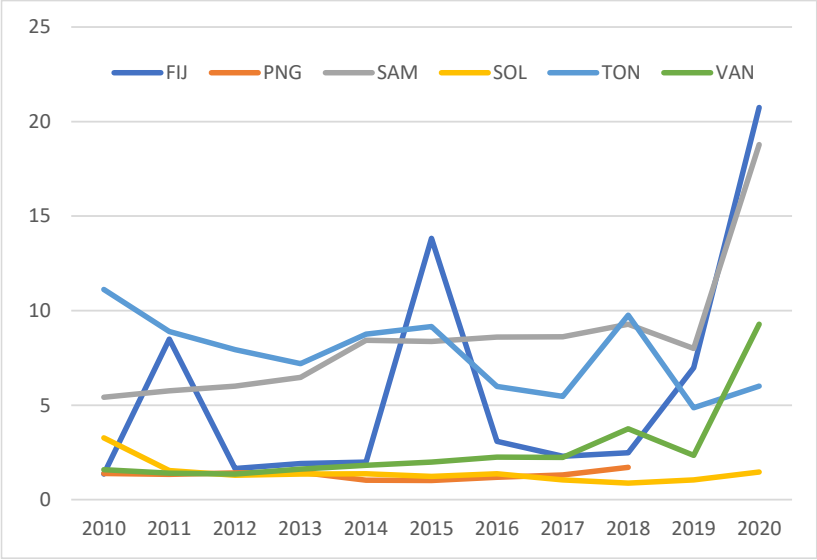
Table 3. Total External Debt (USD millions) and Percent of GNI, 2020

	USD m	% of GNI
FIJ	788	13.1
PNG	5,374	17.5
SAM	372	48.3
SOL	126	6.1
TON	182	32.9
VAN	378	38.9
Total	**7,220**	

Source: ADB Basic Statistics 2021

Figure 7 shows that until 2019 the PIC's capacity to service debt were not a major concern with debt service rations (DSRs – percent of exports used to service debt) mostly less than ten percent[2]. This was confirmed by the Lowy Institute (see Section 8.2.5) which described the "Pacific debt trap narrative as a fallacy". However, several countries, particularly Fiji and Samoa, are facing increasing debt servicing challenges since the onset of the COVID-19 pandemic, due to weak export revenues from which to finance principal and interest payments.

Figure 7. Debt Service Ratio (Percent of Export Revenue Used for Debt Service)

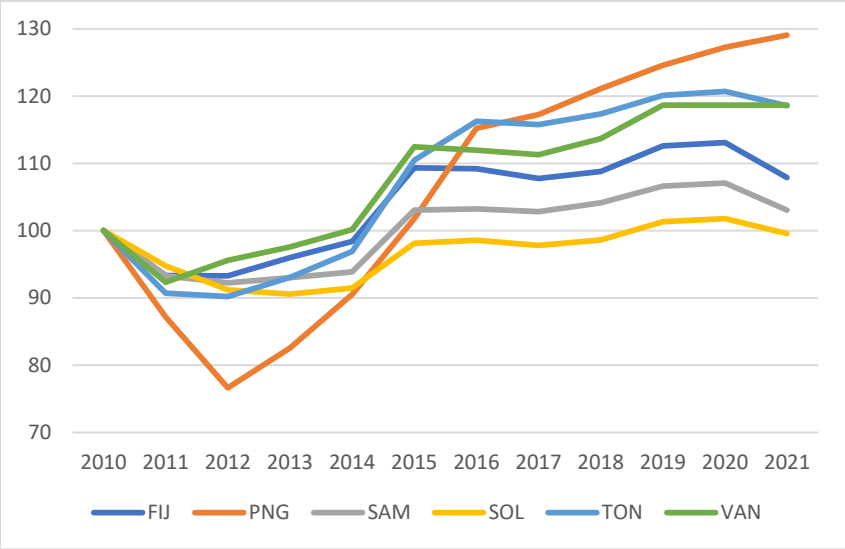


Source: Source: World Bank World Development Indicators

Weaker national currencies make exporting more profitable but also increase the cost of imported goods, and usually the cost of servicing foreign-denominated debt. However, most agricultural production in the PHAMA Plus countries use limited amounts of imported products so softer currencies are a net positive for agricultural exporters and their suppliers. Figure 8 shows that most PICs saw stronger currencies against the USD between 2010 and 2013, followed by weakening since then.

[2] Note that the debt service ratios shown in Figure 7 are in some cases different to those in the 2020 and 2021 PECA due to revision of the World Bank's debt service database.

Figure 8. Exchange Rate Index Versus USD 2010-2021 (2010 = 100)



Source: IMF

4. Revenue and Trade

The key sources of revenue for the Pacific Islands vary between countries and include agricultural commodity exports, mineral/energy resources, tourism, and remittances. Foreign direct investment (FDI) and official development assistance (ODA) also contribute to the current account balance.

4.1 Foreign Direct Investment

Table 4 shows that while Fiji and Vanuatu experienced strong FDI flows, inward investment in other countries has been limited and volatile. Fiji has attracted strong inward investment particularly in the areas of tourism, mining and construction. Investment in Fiji is also linked to its role as a regional hub including air transport and transhipment. Although Fiji's FDI flow has been strong relative to other countries in the region, it has fluctuated between 4% and 9% of GDP over the review period.

Vanuatu also has relatively strong FDI flows. An accommodative tax system, limited exchange controls and a proactive FDI promotion agency are seen as key reasons for attracting investment. Australia is the major source of foreign investment in Vanuatu (USD 78 million in 2017, according to DFAT) with a focus on tourism, finance and construction, followed by Japan and New Zealand.

On the other hand, due to policy uncertainties, including foreign exchange controls, PNG struggles to sustain FDI flows, including a number of investments being put on hold (World Investment Report, 2018). In Solomon Islands the spike in FDI in 2010-11 reflects the reconstruction investments during the post-tension recovery period. Kiribati and Tonga attract very limited amounts of FDI.

Table 4. Foreign Direct Investment, Net Inflows (% of GDP)

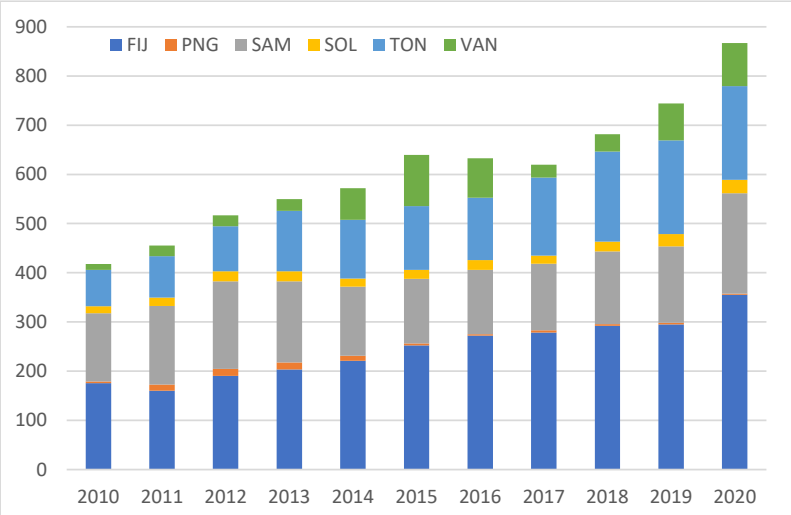
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
FIJ	5.7	5.7	7.0	5.8	7.8	4.1	7.9	7.2	8.4	5.9	5.3	6.4
PNG	0.2	-1.7	-0.3	0.1	-0.1	0.9	-0.2	0.7	4.7	-3.6	-3.8	-0.3
SAM	-0.2	1.2	1.7	1.7	2.8	3.3	0.3	1.1	2.0	-0.3	0.5	1.3
SOL	24.4	12.9	2.2	4.7	1.8	2.8	3.0	2.9	1.6	2.1	0.6	5.4
TON	1.3	1.8	-0.2	1.4	3.0	2.9	1.4	-1.2	4.1	0.3	0.9	1.4
VAN	9.0	7.7	7.7	7.4	1.6	4.2	5.5	4.3	4.1	2.9	2.8	5.2

Source: World Bank World Development Indicators

4.2 Remittances

Remittances are a key source of revenue for some of the PHAMA Plus countries. Remittance flows (see Figure 9) are most important for Samoa and Tonga. Total recorded remittances increased from USD 418 million in 2010 to USD 867 million in 2020. Contrary to earlier expectations, during 2020, the first year of the COVID pandemic, remittance flows actually increased by 16%, the largest annual increase on record. Reports from money transfer services in Australia and New Zealand suggest that remittances rebounded further in 2021 despite reduced participation in seasonal work programmes in Australia and New Zealand.

Figure 9. Total Remittances 2010-2020 (USD millions)



Source: World Bank World Development Indicators

The economic importance of remittances varies greatly among countries (Table 5). It is amongst the highest in the world in Tonga (37% of GDP) and Samoa (19% of GDP). True figures may be even higher due to un-recorded cash and goods transfers. Although remittances are a major source of revenue for some countries, they are correlated with high emigration rates amongst working age people, and there are reports of growing agricultural labour shortages in some countries. However, in other countries such as PNG and Solomon Islands remittances are of negligible importance.

Table 5. Average Remittance Flows 2017-2020

	USDm	% of GDP
FIJ	305	5.9
PNG	3	0.01
SAM	161	19.4
SOL	22	1.4
TON	181	37.0
VAN	56	6.2
Total	728	

Source: World Bank World Development Indicators

4.3 Official Development Assistance

ODA is a key source of resources to finance development expenditure. Table 6 shows that ODA is particularly important in Solomon Islands, Samoa, Tonga and Vanuatu. Solomon Islands received very high levels of ODA support during the Regional Assistance Mission to the Solomon Islands (RAMSI) period and has now reverted to levels similar to Samoa, Tonga and Vanuatu.

Table 6. Net Official Development Assistance Received (percent of GNI)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average
FIJ	2.5	2.1	2.8	2.2	2.0	2.3	2.5	3.0	2.3	2.8	2.5
PNG	3.9	3.6	3.4	3.5	2.6	2.8	2.6	2.4	3.4	2.8	3.1
SAM	23.8	13.7	15.1	14.5	12.1	11.9	11.5	16.9	16.2	15.2	15.1
SOL	68.6	50.5	32.8	27.6	18.2	17.0	15.1	12.8	12.6	14.4	27.0
TON	18.5	21.5	16.1	17.6	18.0	15.5	20.5	18.2	16.9	19.5	18.2
VAN	16.0	11.8	13.9	11.5	12.3	25.9	16.5	15.0	13.9	12.9	15.0

Source: World Bank World Development Indicators

As shown in Table 7, ODA to the PHAMA Plus countries[3] increased by 164% from USD 483 million in 2000 to USD 1,279 million in 2010; but has been relatively flat since then. The largest recipients have been PNG and Solomon Islands, the latter particularly during the RAMSI period between 2005 and 2013. Total ODA flows to the PHAMA Plus countries declined from 7.5% of GDP in 2000 to 4.2% in 2019. ODA receipts as a percentage of GDP were low for Fiji and PNG, and in the 15-20% range for the other countries. In per capita terms the largest recipients of ODA in 2017 were Tonga, Kiribati and Samoa.

[3] Includes grants and loans provided by Members of the OECD Development Assistance Committee (DAC). Includes concessional loans from International Financial Institutions such as WB, ADB and IFAD (net of principal repayments). Excludes ODA provided by emerging donors such as China, India, Russia, etc.

Table 7. Official Development Assistance Receipts 2000 to 2019

	USD Millions			Percent of GDP			USD/Capita
	2000	2010	2019	2000	2010	2019	2019
FIJ	29	76	139	2	2	3	157
PNG	275	512	667	8	4	3	78
SAM	28	148	124	10	22	15	631
SOL	68	340	224	16	50	14	343
TON	19	70	108	9	19	21	1,048
VAN	46	108	131	17	15	14	446
Total	465	1,255	1,393	7.5	6.4	4.2	114

Source: World Bank World Development Indicators and OECD/DAC database

A comprehensive analysis of development assistance to the Pacific[4] in 2017 concluded that the region is one of the most aid-dependent in the world. The Pacific receives higher ODA per capita than any other region, and includes 10 of the 25 countries where ODA is highest as a proportion of national income. Based on OECD data, the analysis found that Australia was the major donor but with considerable variation between countries. The review also noted that funding to non-independent territories was not included, and that loan repayments were subtracted from the ODA receipts, which impacted flows from agencies such as the Asian Development Bank (ADB), the World Bank and the International Fund for Agricultural Development (IFAD).

Another source of information is the Pacific Aid Map (https://pacificaidmap.lowyinstitute.org/) produced by the Lowy Institute which attempts to capture data on traditional and non-traditional (e.g. China and India) donors since 2011. Based on available data (considered complete to 2019 but incomplete for 2020 and 2021) the analysis found that Australia is the leading bilateral donor to the region (around 37% of the total amount), followed by China, New Zealand, the USA and Japan (6%-10% each); with the ADB and the World Bank Group (both 6%); European Union (EU) institutions provided around 4%, with smaller contributions from specialist agencies including the United Nations Development Program (UNDP), United Nations Children's Fund (UNICEF), Food and Agriculture Organisation (FAO), and IFAD.

When assessed by sectorial allocation (using OECD definitions), 17% of the funding was for governance, followed by transport (16%), health (11%) and humanitarian assistance (9%) with the other eight sectors (including "agriculture, forestry and fishing") between 2% and 7% each.

The implications for PHAMA Plus are that the region is significantly influenced by donor aid flows. Although the volume of aid is declining as a proportion of GDP, it remains critically important in some of the smaller, lower income countries, notably Samoa and Tonga. In the more populous countries including PNG, Fiji and Solomon Islands, ODA receipts are much lower on a per capita and per GDP basis, but can play an important role in providing technical assistance and in supporting disadvantaged and vulnerable groups.

4.4 Trade

Exports

Export performance varies greatly across the PHAMA Plus countries, with the great majority of exports generated by PNG (86.2%), Fiji (8.8%) and Solomon Islands (4.0%). As shown in Table 8, the total value of merchandise exports in the smaller countries: Samoa, Tonga and Vanuatu are mostly in the range of USD 20-60 million. At the other end of the range are the more export-oriented economies of Fiji, Solomon Islands, and

[4] *Matthew Dornan and Jonathan Pryke (2017). Foreign Aid to the Pacific: Trends and Developments in the Twenty-First Century. Asia & the Pacific Policy Studies 4(3) pp. 386–404. https://onlinelibrary.wiley.com/doi/epdf/10.1002/app5.185*

PNG; with the latter overshadowing all of the others PICs in terms of export performance. It is notable that the PHAMA Plus countries experienced a **sharp contraction in the value of exports during 2020**, averaging 19% overall, compared to a seven percent contraction in global trade. Moreover, whilst global exports rebounded strongly in 2021 to reach record levels the PHAMA Plus countries did not recovery to pre-pandemic levels.

Table 8. Total Value of Merchandise Exports (USD millions) 2014 to 2021

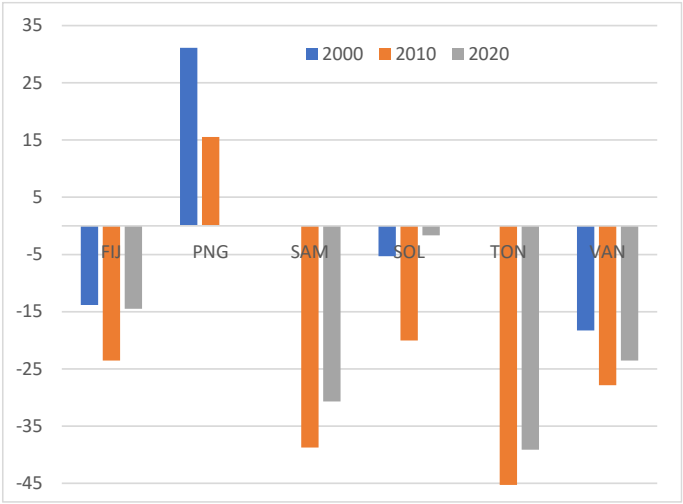
	2014	2015	2016	2017	2018	2019	2020	2021
PNG	8,794	8,453	8,194	9,952	10,524	11,399	9,280	10,969
FIJ	1,373	895	926	956	1,041	1,033	826	874
SOL	459	400	437	500	569	461	379	371
VAN	63	39	50	47	61	56	46	53
SAM	51	59	56	44	46	49	37	29
TON	19	18	21	19	13	20	15	22
Total	10,759	9,864	9,684	11,518	12,254	13,018	10,583	12,318
% Change		-8.3	-1.8	18.9	6.4	6.2	-18.7	16.4

Source: WTO Data

Trade Balance

As shown in Figure 10 and elaborated in Annex 3, the balance of trade in merchandise (goods but not services) relative to GDP is consistently negative in all countries other than PNG, where growing exports of minerals, energy and agricultural commodities (palm oil, coffee, cocoa and coconut products) generate strong trade surpluses. For Fiji the balance of merchandise trade has waned in line with falling sugar exports and the growth or tourism receipts, which are not counted as part of merchandise trade. Timber and tuna exports have contributed to improving export performance in Solomon Islands, although the prospects for sustainability of the timber component are poor. All of the other PHAMA Plus countries experienced large, and in some cases worsening deficits in merchandise trade over the last two decades.

Figure 10. Total Value of Merchandise Exports (USD millions) 2014 to 2021

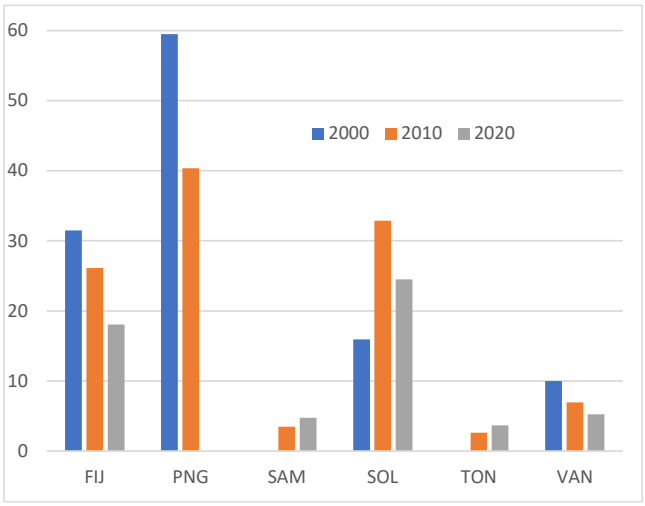


Source: World Bank, World Development Indicators

Figure 11 shows that the economies of PNG and Solomon Islands are highly export-oriented with exports mostly running at around 20%-50% of GDP. This compares with 18-20% of GDP for China, Australia and New

Zealand and less than 10% for the USA. In Fiji exports fell from 35% of GDP in 2010 to 18% in 2020, and in all of the other countries have been well under 10% for most of the last two decades.

Figure 11. Merchandise Exports as a Percentage of GDP

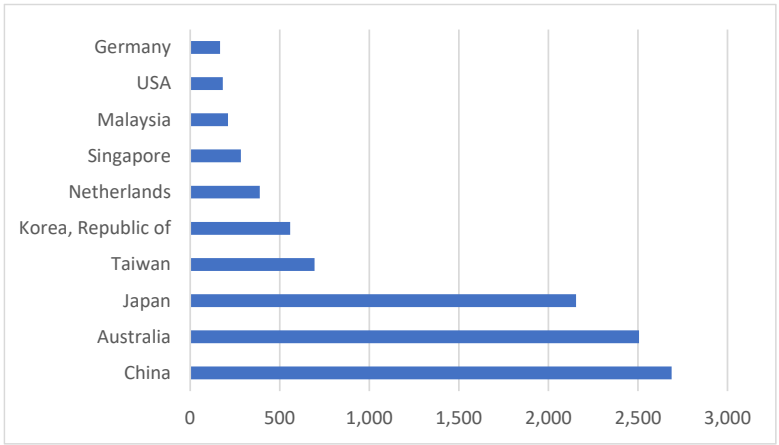


Source: World Bank, World Development Indicators

Trading Partners

As shown in Figure 12, the **major export destinations** are the Pacific Rim countries including China, Australia Japan, Taiwan and Korea, which account for over 80% of total exports from the PHAMA Plus countries. Some commodities such as vegetable oils, coffee and cocoa eventually find their way to Europe and North America via intermediaries in Australia, Singapore, Malaysia, Philippines, etc.

Figure 12. Top Ten Export Destinations for PHAMA Plus Countries, 2020 (USD millions)



Source: ITC Trade Map

Table 9 shows that the different PHAMA Plus countries differ significantly in their principal export destinations. Fiji's exports are more diversified than the other countries with USA, Australia and New Zealand being prominent (along with ship bunkering and stores). PNG contributes 86% of total exports from the PHAMA Plus countries which mainly go to China, Australia and Japan. Exports from Solomon Islands (timber, fish etc.) are principally destined for China. Samoa's main export markets are American Samoa and Australia. Most of Tonga's exports go to USA, Australia, and New Zealand, and Vanuatu's main markets are Japan, and Thailand.

Table 9. Major Export Destinations for PHAMA Plus Countries, 2020 (USD millions)

	FIJ	PNG	SAM	SOL	TON	VAN	Total
China	41	2,283		355	0	9	2,689
Australia	124	2,371	10		1		2,506
Japan	25	2,061			1	68	2,154
Taiwan		678		12		5	695
Korea, Republic of		536	1	9	1	11	558
Netherlands		385	4				388
Singapore		284					284
Malaysia		197		9	0	6	212
USA	167		5		4	7	183
Germany		167					167
Bulgaria		126					126
Ship stores and bunkers	68						68
New Zealand	58		6		2		66
UK	47			16			64
Thailand				17		42	59
Italy				50			50
Tonga	40						40
Vanuatu	29						29
Samoa	26				0		26
India			1	20			21
American Samoa			19				19
Philippines				11		3	14
Mauritania						14	14
Switzerland				11			11
Fiji					0	8	8
Indonesia			5				5
Brazil			2				2
Israel			1				1
Hong Kong					0.416		
Total top ten destinations	625	9,088	53	510	10	173	10,460
Total Exports	828	9,968	57	546	12	181	11,591
Share of top ten (%)	76	91	94	93	95	95	90

Source: ITC Trade Map

Trade in Food Items

Food imports and exports are both important parts of Pacific Island trading patterns. Table 10 shows that the PHAMA Plus countries import food worth around USD 1.1 billion per annum, with exports of around USD 2.5 billion. Food imports represent about 14% of total imports across the region, ranging from 8% in Vanuatu to 27% in Tonga. Food exports are about 32% of total exports overall but are much higher in Fiji (sugar and bottled water), Tonga (fresh produce) and Vanuatu (cocoa, coconut products and kava). The percentages are lower for PNG and Solomon Islands due to the predominance of minerals and energy exports from PNG and timber from Solomon Islands. The overall food trade balance for the region is positive, mainly due to the contribution of PNG food exports, principally palm oil, cocoa, coffee and coconut products. In per capita terms, Solomon Islands and Tonga have significant food trade deficits – Samoa also, although the trade data are missing. The COVID-19 shutdown of the tourism sector may have reduced food imports to some extent in Fiji and Vanuatu although this is yet to be seen in the statistics.

Table 10. Value of Food Imports and Exports (USD millions)

	Food Trade a/		Trade	Pop'n	Balance/
	Imports	Exports	Balance	('000)	Capita
FIJ	-385	643	258	896	287
PNG	-524	1,716	1,192	8,947	133
SAM				198	
SOL	-116	108	-8	106	-78
TON	-51	15	-36	687	-52
VAN	-26	52	26	307	85
Total	-1,102	2,534	1,431	11,142	128

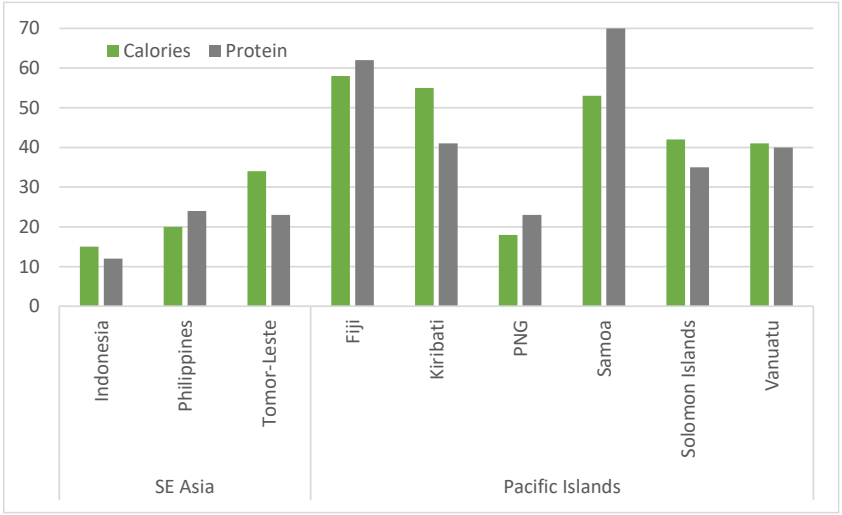
a/ Data from various years. No data for Samoa

Source: World Bank World Development Indicators

Among imported food items, all of the PHAMA Plus countries import large amounts of cereal products including wheat, flour rice, noodles and pasta. All countries other than PNG and Fiji also import large amounts of sugar and sugary drinks. These are cheaper sources of carbohydrate than the traditional root crops. All countries are also importing increasing amounts of meat and dairy products, often of poor quality. These imported foods are displacing traditional foods such as vegetables and fish with serious health implications as seen in the rising prevalence of non-communicable diseases – including stunting in children and obesity, hypertension, diabetes and heart disease in adults.

An ACIAR study[5] on COVID-19 and food systems in the Indo-Pacific highlights the region's dependence on food imports. Figure 13 shows that for both calories and protein the Pacific Islands (apart from PNG) are more heavily dependent on imports than the South-East Asian Countries. Fiji, Kiribati and Samoa all rely for on imports for more than half their food requirements in terms of calories, protein or both. For Solomon Islands and Vanuatu import dependence is mostly above 40%.

Figure 13. Percentage of Total Caloric and Protein Intake Derived from Imports (2017)

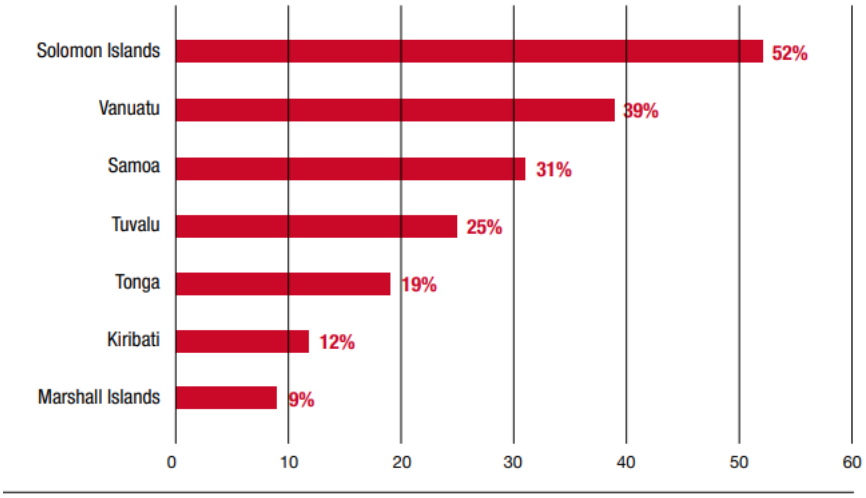


Source: ACIAR (2020). Except for PNG, calculated from FAO food balance sheets. PNG estimates are from Bourke et al (2009)

[5] *Robins L, Crimp S, van Wensveen M, Alders RG, Bourke RM, Butler J, Cosijn M, Davila F, Lal A, McCarthy JF, McWilliam A, Palo ASM, Thomson N, Warr P & Webb M (2020). COVID-19 and food systems in the Indo-Pacific: An assessment of vulnerabilities, impacts and opportunities for action. ACIAR Technical Report 96*

Figure 14 shows that despite the high percentage of people living in rural areas, Pacific Island households are heavily dependent on purchased food – evidence of the erosion of traditional self-sufficient subsistence-oriented lifestyles. Moreover, much of the purchased food consists of imported items of poor nutritional value.

Figure 14. Percentage of Food Consumed from own Production



Source: Reported in IFAD (January 2022)[6]

4.5 Trade with Australia and New Zealand

Table 11 shows that there are large imbalances in trade flows between the PHAMA Plus countries and Australia/New Zealand. The PHAMA Plus countries have a positive overall trade balance with Australia, but only because of gold exports from PNG and to a smaller extent from Fiji. If gold exports are excluded, Australia's exports to PHAMA Plus countries exceed its imports by 4.7 times. The imbalance is even more pronounced for agricultural commodities where Australia's exports are more than seven times its imports. The PHAMA Plus countries do however enjoy small trade surpluses with Australia for seafoods and timber. New Zealand's trade with the PHAMA Plus countries is even more asymmetric, with total exports being 6.3 times imports. This is substantially driven by agricultural commodities, with trade in seafoods and timber also in New Zealand' favour.

Overall, during the five years 2017-2021 Australia and New Zealand exported agricultural commodities to the PHAMA Plus countries worth an average of USD 649 million, whilst importing only USD 99 million.

[6] IFAD (January 2022) Reinforcing Pacific Food Systems for COVID-19 Recovery: Key Impacts, Responses and Opportunities to Build Back Better. Data based on Household Income and Expenditure Surveys (HIES)carried out in: Solomon Islands 2012/13; Tonga and Tuvalu 2015/16; Samoa 2018; and Kiribati, Marshall Islands and Vanuatu 2019/20.

Table 11.Balance of Trade Between PHAM Plus Countries and Australia and New Zealand (USD millions)

Trade with Australia

Sector	Australia's Exports to P+ Countries	Australia's Imports from P+ Countries	Balance of Trade With Australia
All items	1,836.7	2,584.8	748.2
Agricultural commodities	429.9	59.0	-370.9
Seafoods	1.7	2.9	1.2
Timber	3.4	7.9	4.4
Precious metals	3.1	2,192.9	2,189.8
Other	1,398.5	322.1	-1,076.4
All items ex. precious metals	1,833.6	392.0	-1,441.6

Source: ITC Trade Map

Trade with New Zealand

Sector	NZ's Exports to P+ Countries	NZ's Imports from P+ Countries	Balance of Trade With New Zealand
All items	472.0	74.1	-397.9
Agricultural commodities	219.0	39.6	-179.5
Seafoods	4.9	1.9	-3.0
Timber	17.2	9.1	-8.1
Precious metals	0.6	0.2	-0.4
Other	230.1	23.3	-206.8

Source: ITC Trade Map

4.6 Trade in PHAMA Plus Priority Commodities

PHAMA Plus has diversified from its original focus on agricultural and horticultural commodities and now supports a diverse portfolio of interventions spanning agriculture, horticulture, livestock, fisheries and forestry products and their derivatives. It is therefore useful to consider trading patterns across the entire PHAMA Plus product portfolio. This has been done by compiling data on trade in 28 of the 99 commodity groups in the Harmonised System (HS) used by customs authorities for classifying traded products. These 28 groups incorporate all of the commodities relevant, or potentially relevant to the work of PHAMA Plus. Table 12 below shows the value of exports for 18 of these commodity groups in which exports average USD 1.0 million or more.

Table 12. Value of Exports by Country and HS Commodity Classification (USD millions): Average over Five Years 2016-2020

HS Two-digit Classification	FIJ	PNG	SAM	SOL	TON	VAN	**Total**	Percent
Timber	32.6	768.0		389.3	0.1	2.1	**1,192**	37.8
Fats and oils		560.6	1.6	36.9		1.9	**601**	19.1
Seafood	111.7	253.4	14.6	34.4	3.4	112.6	**530**	16.8
Meat and fish preparations	17.1	200.5		35.7			**253**	8.0
Coffee and tea	7.6	200.7				0.2	**208**	6.6
Cocoa		95.9		8.7		4.3	**109**	3.5
Oilseeds and other grains	13.8	41.4		7.7	0.5	25.6	**89**	2.8
Sugar	62.5						**62**	2.0
Cereals	32.8	1.2	0.3				**34**	1.1
Vegetables, roots and tubers	16.1		3.2		5.1		**24**	0.8
Milling products	14.0						**14**	0.4
Food residues and waste		9.3	0.3	2.0		0.4	**12**	0.4
Tobacco	9.8		0.4	0.3	0.1		**11**	0.3
Beverages and spirits		1.7	2.1	0.3		1.2	**5**	0.2
Vegetable preparations			2.9		0.1		**3**	0.1
Meat			0.5		0.0	0.9	**1**	0.0
fruit and nuts			0.7		0.7		**1**	0.0
Other animal products				0.3	0.8	0.2	**1**	0.0
Total	**318**	**2,133**	**27**	**515**	**11**	**149**	**3,153**	100.0
Percent	10.1	67.6	0.8	16.3	0.3	4.7	100.0	

Source: ITC Trade Map

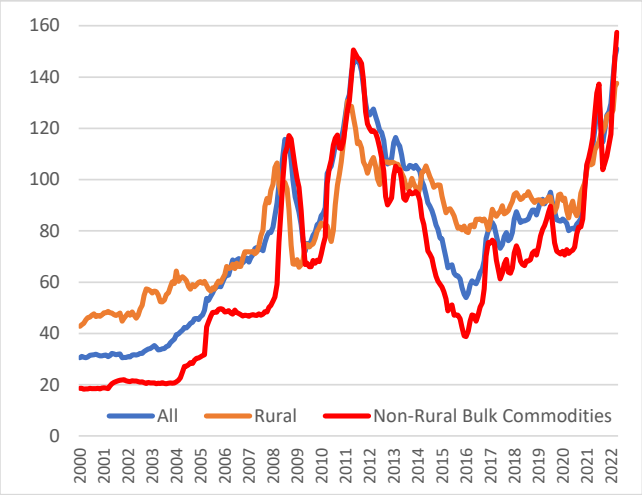
Table 12 highlights some important features of exporting patterns in the PHAMA Plus countries:

- Timber products (mainly logs) contribute more than a third of the value of exports, with almost all of this coming from PNG and Solomon Islands.
- Fats and oils, mainly consisting of palm oil, are the second largest export commodity, with almost all of this coming from PNG and Solomon Islands.
- Seafood products are the third most important commodity group contributing 17% of total revenue with all six countries participating.
- Meat and fish preparations (mostly processed fish) rank fourth and come mostly from PNG.
- Coffee and tea (mostly coffee) exports rank fifth and come entirely from PNG.
- Cocoa ranks sixth and comes mainly from PNG, with smaller amounts from Solomon Islands and Vanuatu
- The above six commodity groups account for over 90% of the value of exports from the PHAMA Plus countries.

4.7 Commodity Prices

The initial impact of COVID-19 on global commodity prices was moderately negative as seen in Figure 15 below. However, following the softening in prices during the first half of 2020 there has been a strong resurgence continuing into 2022 affecting both rural and non-rural commodities. The resurgence is contrary to earlier expectations of weakened demand associated with global economic contraction foreshadowed in earlier editions of the PECA. The resurgence in many non-rural commodity prices is linked to stimulatory spending on infrastructure investment. Rural commodity prices have also rebounded in response to resurgent consumer demand combined with COVID-related supply disruptions, poor seasonal conditions in the northern hemisphere, and more recently the war in Ukraine – affecting grain and oilseed supplies from the Black Sea ports

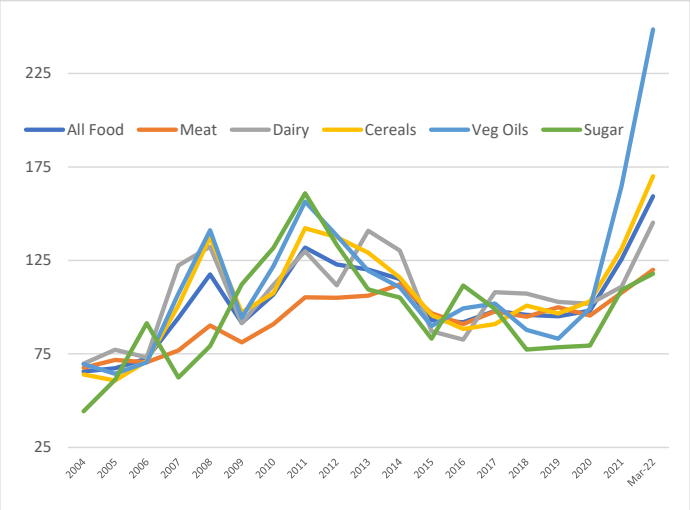
Figure 15. Global Commodity Price Indices in USD (2020-21 = 100)



In addition to climatic variation, the key agricultural export commodities from the Pacific such as coffee, cocoa, copra, coconut oil, palm oil etc., are subject to price volatility common amongst internationally traded commodities. Soaring sea freight costs (see Figure 21 below) have also reduced returns from bulk commodity exports. The PHAMA Plus countries are very small exporters in a global scale and the bulk or commodity nature of these exports make them largely "price takers". However, this is less so for special and value-added products such as kava, virgin coconut oil, cosmetics and some fish products. This highlights the need for PICs to consider more specialised markets (i.e. other than bulk commodity) for these products while being realistic on whether the product specifications required by niche markets can be met, and if the returns adequately compensate for the additional effort, risk and cost. For PHAMA Plus, the need to consider specialised markets is particularly relevant for coffee (PNG), cocoa (PNG, Solomon Islands and Vanuatu) and coconut products (PNG, Solomon Islands and potentially others). This is reflected in the PHAMA Plus interventions focussing on expanding exports into differentiated and/or specialised markets, and addressing production and post-harvest issues to improve productivity and quality.

Figure 16 shows the overall global trends in food prices from 2004 until March 2022. The general pattern is one of rising prices until 2011, followed by a period of decline until 2020, followed by a strong upside breakout beginning in 2020, most notably for vegetable oils and cereals. Comparable price spikes are currently being experienced for a range of non-food commodities including minerals, energy and fertilisers.

Figure 16. FAO Food Price Index 2004 to March 2022

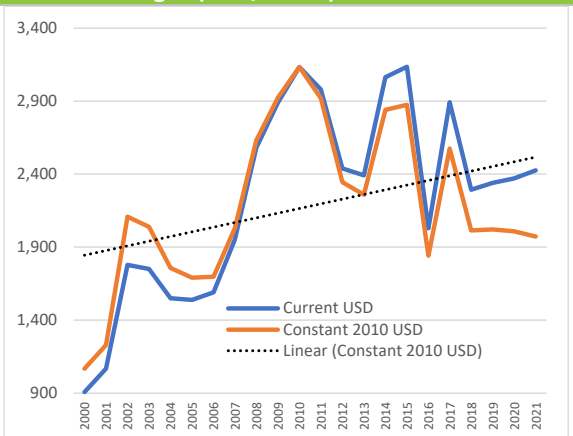
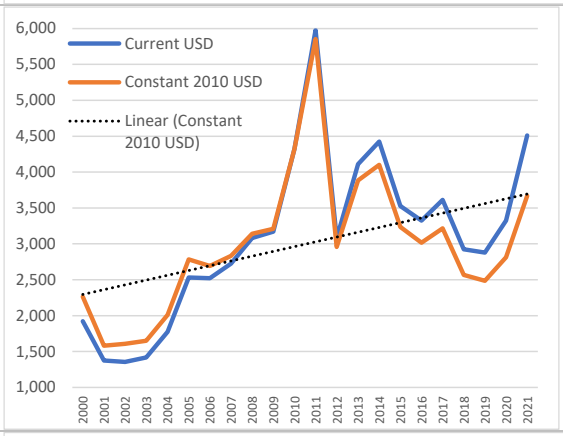
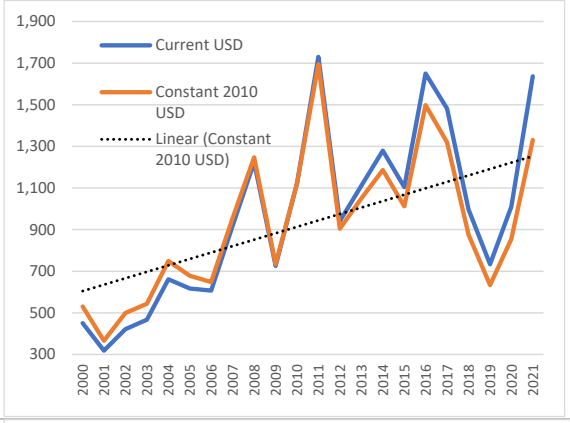
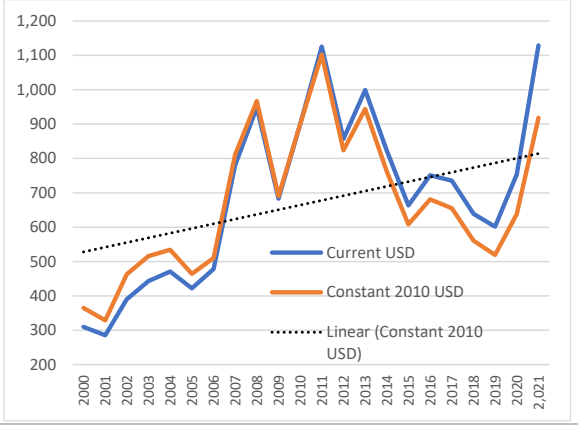


Source: FAO World Food Situation/FAO Food Price Index

The **staple cereals** (rice, wheat-based products, etc.), for which all PICs are substantial net importers, saw moderately increasing prices from the beginning of 2020, strengthening further in 2021 and reaching record levels in early 2022 as part of a global resurgence of food price inflation. The surge in prices was initially driven by poor harvests in key grain exporting countries, strong demand as consumer incomes recovered, supply disruptions due to logistic bottlenecks and soaring shipping costs. The war in Ukraine has amplified these underlying imbalances and some countries have imposed export controls to contain domestic food prices. It seems likely that high prices will persist through 2022, if not longer.

The onset of the COVID-19 crisis saw a general firming in prices for **vegetable oils**, and this has continued through 2021 and 2022. Here again poor seasonal conditions in North America and the Ukraine conflict have contributed. As shown in Figure 20, prices for palm oil which were less than USD 1,000 per tonne since 2011, have recently surged to over USD 1,500 per tonne. Coconut oil has performed in a similar manner. This is good news for the two palm oil exporters, PNG and Solomon Islands, but bad for the other PICs who are net importers of vegetable oils.

Locally traded **fresh foods** (fruits, vegetables, fish, etc) have been affected in various ways. There were reports of localised shortages and higher prices due to urban market closures and movement restrictions, although these eased as restrictions were lifted. There are also reports of growers being unable to market perishable fresh produce for the same reasons. The shutdown of tourism has also affected local fresh produce sales, especially in Fiji and Vanuatu. Fresh produce exports by air freight (mainly from Fiji) have been severely curtailed due to flight cancellations. Exports of root crops from Fiji, Samoa and Tonga have also been affected by reduced shipping and flight schedules. The net result of all this is lower prices for farmers and in some cases the inability to sell at all. However, the situation is expected to normalise during the pandemic recovery phase. In real terms, the USD prices of the major export commodities show an uptrend over the last 20 years, often with prices strengthening during the first half of that period and softening in the second half, and with very large fluctuations either side of the trend line as illustrated in the graphs below. Nearly all commodities have experienced major price escalations, in some cases to record levels, during the last two years.

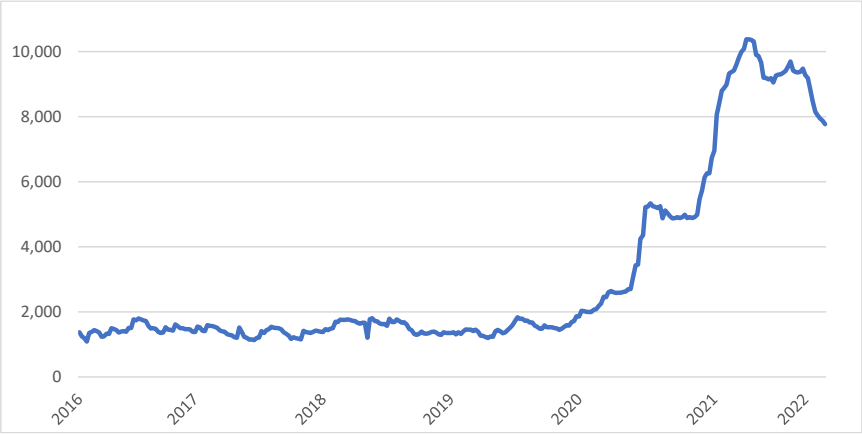
Commodity	Annual Averages (USD/tonne) between 2000-2021
Figure 17. Cocoa Prices (USD/tonne), Average New York and London ***Source: ICCO*** Over the last decade cocoa prices have fluctuated between USD 1,900 and USD 3,100 per tonne. Over 20 years real cocoa prices have trended upwards, but in 2020 and 2021 were about 20% below the trend line.	
Figure 18. Coffee Prices (USD/tonne) Mild Arabica New York ***Source: Index Mundi*** Arabica coffee prices tripled between 2000 and 2011 but have declined until 2019. However prices have rebounded by over 50% from the 2019 lows. In the first quarter of 2022 there have been further increasees reaching the record levels of 2011.	
Figure 19. Coconut Oil (USD/tonne) Bulk CIF Rotterdam ***Source: Index Mundi*** Copra and coconut oil prices move in tandem with copra prices averaging 67% of coconut oil. In the last decade coconut oil prices have fluctuated between about USD 750 and USD 1,500 per tonne. During the last two years there has been a strong price recovery, equalling the record prices of 2010.	
Figure 20. Palm Oil (USD/tonne) Bulk CIF Rotterdam ***Source: Index Mundi*** After a period of decline from 2010 until 2019, palm oil prices have staged a strong recovery to reach record levels. There have been further gains during the first quarter of 2022 reaching over USD 1,500/tonne	

The upsurge in export commodity prices is positive for the exporters of cocoa, coffee and vegetable oils. However, as net food importers, all PHAMA Plus countries are affected by escalating food import prices including cereals, vegetable oils, meat and dairy products as well as much higher shipping costs for both imports and exports (see Figure 21 below).

4.8 Shipping Costs

Whilst commodity prices are strong, a significant part of the benefit has been offset by massive inflation in global shipping costs. Figure 21 shows that the cost of shipping a sea container (weighted average of four major shipping routes) increased five-fold between Mid-2020 and September-October 2021. Freight rates have eased somewhat since then but are still four times pre-pandemic levels. In the Pacific, soaring freight charges have been accentuated by reduced and erratic vessel movements, creating havoc for both exporters and importers. Air freight charges have also escalated whilst availability has shrunk.

Figure 21. World Shipping Container Index 2016-April 2022



Source: Drewry World Shipping Container Index

4.9 Commodity Export Volumes

The volume of commodity exports from the PHAMA Plus countries is generally expanding at less than global trade growth, and in some cases volumes have actually declined. Table 13 shows trends in PIC agricultural commodity exports (coffee, cocoa, copra and palm oil) between 2000 and 2020. The PICs supply a significant portion of global trade only for copra where in 2017 the PICs exported 58% of total copra traded. However, this fell to 28% by 2020. Global copra trade is declining as the main copra producing countries process copra and consume more coconut oil in country. In the case of coffee, PNG's exports declined by 40% between 2000 and 2020, whilst global trade increased by the same amount. For cocoa, exports from Solomon Islands expanded by 35%, although from a very low base, and still less than global growth. Global palm oil trade expanded by over 200% between 2000 and 2020. PNG's exports of palm oil also grew strongly, but at less than half the global rate, and Solomon Islands palm oil exports increased modestly.

Table 13. Pacific Island and World Trade Volumes for Key Commodities (tonnes'000)

Item	Country	tonnes exported ('000) 2000	2010	2017	2018	2019	2020	% Change 2000-20
Coffee	PNG	66	59	55	50	51	40	-40
	World	5,499	6,582	7,348	7,489	7,949	7,719	40
Cocoa	PNG	38.0	57.8	37.7	36.3	23.6	36.6	-4
	SOL	2.6	5.3	4.2	5.0	4.0	3.5	35
	VAN	1.5	1.5	2.5	1.4	2.0	1.6	6
	World	2,503	2,699	3,892	4,129	4,099	4,117	64
Copra	PNG	67	19	75	76	48	45	-33
	SOL	8	24	19	12	4	6	-33
	VAN	30	12	20	13	8	11	-65
	World	280	125	194	226	202	219	-22
Palm Oil	PNG	336	486	620	614	540	698	108
	SOL	32	23	35	23	21	40	24
	World	14,162	35,271	47,925	48,734	49,352	47,301	234

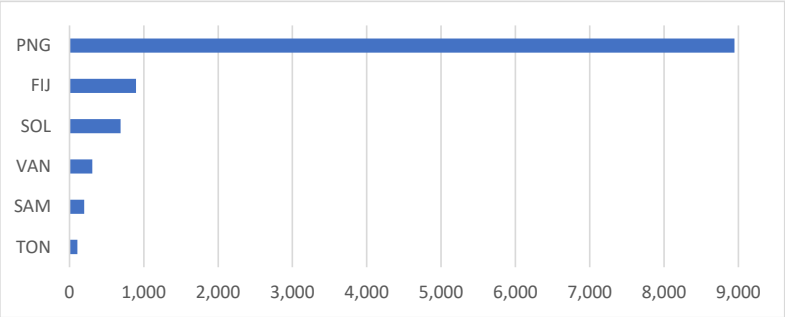
Source: FAO Statistics http://www.fao.org/faostat/en/

5. Demography

5.1 Population

The total population of the six PHAMA Plus countries in 2020 was 11.1 million and growing at 1.9% per annum and estimated to reach 11.6 million by the end of 2022. As shown in Figure 22, population is heavily skewed towards the Melanesian countries which comprise 96% of the total. Population densities are generally highest in the smaller countries such as Tonga and Samoa. Tonga and Samoa are growing at less than 1.0% due to high emigration rates.

Figure 22. Total Population ('000) in 2020



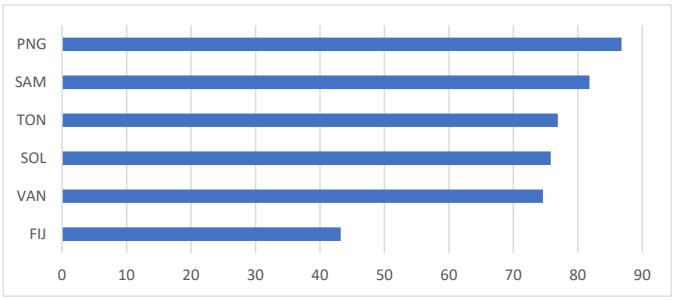
Source: World Bank World Development Indicators

The population growth rates are also reflected in the median age data. Fiji's higher median age (28 years) reflects its declining birth rate. The other countries all have median ages between 20 and 22 years which means that they face bigger challenges of youth unemployment, especially considering the large percentage of the population resident in rural areas where job opportunities are limited.

All countries, other than Fiji, have over three quarters of their population living in rural areas as illustrated in Figure 23. The proportion of population living in the rural areas is highest in PNG whilst Fiji has the highest level of urbanisation. This is consistent with Fiji's more advanced stage of development as shown by

GNI/capita. With the exception of Fiji and Solomon Islands, the proportion of population in rural areas in all the other countries have been fairly consistent over recent years. The majority of the rural population is dependent on agriculture and related activities for their livelihood. It is likely that in some countries the rural population increased during the COVID pandemic due to urban dwellers returning to their villages. The effect is likely to be most pronounced where tourism is a significant employer, notably in Fiji and Vanuatu.

Figure 23. Percent of Population Living in Rural Areas, 2019

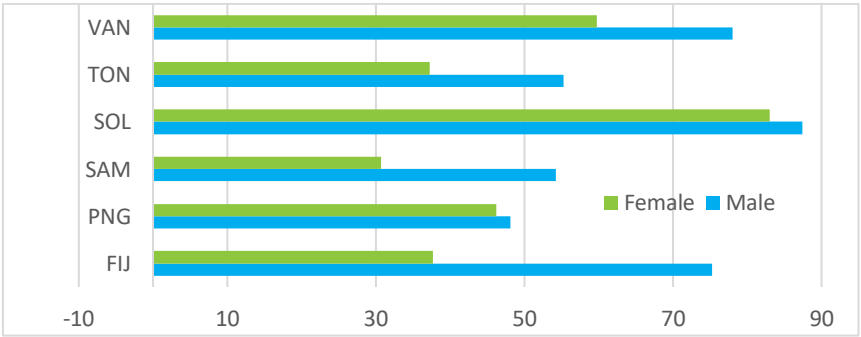


Source: UNDP 2020

5.2 Labour Force

In 2021, labour force participation was the highest in Solomon Islands, Vanuatu and Fiji and much lower in PNG and Samoa. Across all countries, female participation in the labour force is lower than male as depicted in Figure 24. Only Solomon Islands and Vanuatu have female participation rates above 50%. Technology-led change is putting further pressure on women's labour force participation, as automation disproportionately affects the sorts of routine jobs in which women are employed.[7] However, it should be noted that the labour force data only cover formal employment and do not include the large number of people self-employed in informal businesses, agriculture and fishing where female employment is generally significant.

Figure 24. Labour Force Participation Rates (Percent) 2020

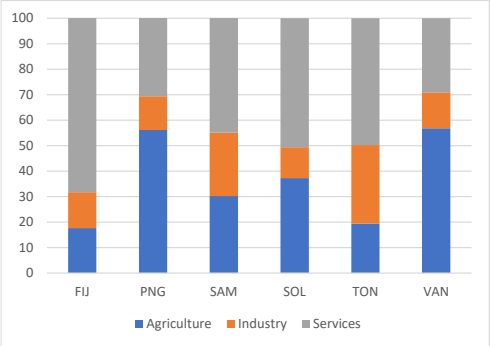


Source: World Bank World Development Indicators

As shown in Figure 25 the agricultural sector accounts for almost 60% of jobs in PNG and Vanuatu, 30-40% in Samoa and Solomon Islands, but lower in Tonga and Fiji, despite the relatively high percentages of people living in rural areas. The services sector is also an important source of jobs in all countries, exceeding agriculture in four of the six cases. However, the agricultural employment figures do not account for informal or unpaid family labour and subsistence production where women and youth are significantly involved.

[7] *https://asiafoundation.org/2021/03/17/the-future-of-work-for-women-in-the-pacific-islands/*

Figure 25. Share of Employment by Sector (Percent), 2019



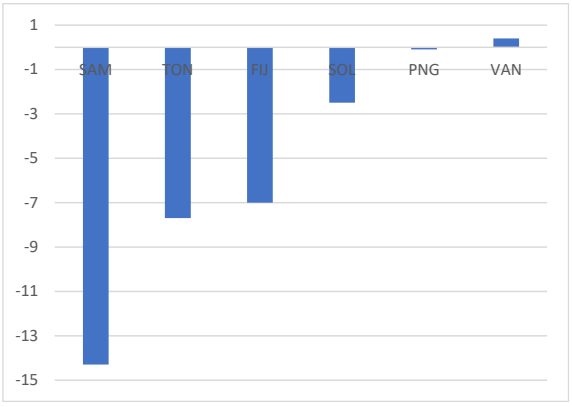
Source: World Bank World Development Indicators

5.3 Migration

Migration Rates

Migration rates (see Figure 26) also have significant demographic implications. Fiji, Samoa and Tonga are experiencing high rates of out-migration with large diaspora communities mostly concentrated in New Zealand, Australia and USA. PNG, Solomon Islands and Vanuatu have small outmigration rates with net inward migration in some years.

Figure 26. Net Migration Rate (Migrants per 1,000 people) 2015-2020



Source UNDP 2020

High emigration rates create opportunities for export of traditional Pacific foods to diaspora communities. However, it also limits agricultural production potential in rural areas where large numbers of the most productive individuals are emigrating, putting pressure on labour availability and cost. A shrinking rural workforce and increasing agricultural wages suggest a need to look for labour/cost-saving options such as mechanisation to maintain competitiveness.

Seasonal Migration

Seasonal worker schemes hosted by Australia and New Zealand are popular among younger people and affect the availability of labour in rural areas of some PHAMA Plus countries. The New Zealand Recognised Seasonal Employer (RSE) Scheme was established in 2007 and has grown steadily to reach 12,581 arrivals in 2018-19 before slipping back to 11,152 in 2019-20 during the onset of the COVID-19 crisis. In 2019-20, 88% of

participants came from PHAMA Plus countries, predominantly from Vanuatu, Samoa and Tonga. The numbers are especially significant for Tonga and Vanuatu with participation rates of 17 and 14 persons per 1,000 respectively and Samoa with 12 persons per 1,000.

Australia previously hosted two schemes for Pacific workers – a seasonal scheme (up to nine months per year) and a three-year scheme for Pacific Island workers. In April 2022 these were merged into as single Pacific Australia Labour Mobility (PALM) scheme. The number of participants in these schemes is unclear, but general immigration statistics show that there are consistently high rates of immigration from Fiji and Samoa. Participation in the New Zealand and Australian seasonal employment schemes was greatly reduced through 2020 and 2021 due to COVID-19 travel restrictions, but is now being ramped up.

Based on analysis[8] and anecdotal commentary, the seasonal migration schemes are significantly influencing the primary sectors (e.g. availability of labour and skills), incomes and investment, and social dynamics more broadly. The impact of these schemes is a consideration in the design and implementation of some PHAMA Plus interventions especially where the availability of labour and skills has been identified as an issue (e.g. productivity of root crops in Fiji, Samoa and Tonga; and all sectors in countries with relatively high levels of participation in the schemes such as Vanuatu). This will be done through greater collaboration and information sharing with other programs (e.g. Pacific Labour Facility) and national stakeholders.

COVID-19 has greatly affected the movement of people globally, and in the Pacific. Migration was brought to a standstill with aspiring emigrants and returnees having to cancel travel plans. Within-country movements of people have also been significant with many urban people temporarily returning to their home villages. Many seasonal workers have been stranded in Australia and New Zealand and new participation in these programs is resuming during the first half of 2022. These short-term demographic changes may have longer-term implications which are still to become evident.

6. Business environment

6.1 Business processes

The World Bank's Ease of Doing Business Index (discontinued in 2021) ranks 190 countries in terms of a composite index assessing various attributes of the business enabling environment. As shown Table 14, New Zealand is ranked No 1 (best) in the world and Australia 14th. Fiji, Samoa, Tonga and Vanuatu are in the mid-range of countries. Solomon Islands and PNG are somewhat lower in the rankings, and Kiribati much lower. Countries above (i.e. worse than) the mid-range (95th) for different elements of the rankings include the following:

- Starting a business, dealing with constrution permits and registering property: Fiji, Kiribati, PNG, Solomon Islands and Vanuatu.
- Getting Credit: Fiji, Kiribati, Samoa and Solmon Islands.
- Trading Across Borders: all countries other than Fiji and New Zealand.
- Enforcing contracts: all countries other than Samoa, Australia and New Zealand.

8 For example: World Bank. 2018. Maximizing the Development Impacts from Temporary Migration: Recommendations for Australia's Seasonal Worker Programme. Washington, DC: World Bank; The Pacific Labour Scheme and Transnational Family Life: Policy Brief (2018). https://www.sprc.unsw.edu.au/media/SPRCFile/PLS_Policy_Brief_FINAL_June_2018.pdf

Table 14. Ease of Doing Business Index: Ranking out of 190 Countries (lowest is best)

Criteria	FIJ	KIR	PNG	SAM	SOL	TON	VAN	AUS	NZE
Overall Ranking	102	164	120	98	136	103	107	14	1
Starting a business	163	149	142	46	110	62	137	7	1
Dealing with construction permits	102	169	122	94	172	69	163	11	7
Getting electricity	97	172	118	71	112	95	101	62	48
Registering property	57	150	127	68	155	166	84	42	2
Getting credit	165	173	48	119	104	48	37	4	1
Protecting minority investors	97	136	72	128	136	153	147	57	3
Paying taxes	101	98	118	82	41	102	67	28	9
Trading across borders	79	135	125	154	160	97	148	106	63
Enforcing contracts	101	121	173	86	157	98	138	6	23
Resolving insolvency	98	168	144	140	145	138	101	20	36

Source: World Bank Ease of Doing Business Index

Over the five years since 2016 the ease of doing business scores in the PHAMA Plus countries improved on average by 2.1%. The largest improvements were seen in PNG (6.8%), Kiribati (3.3%), Samoa (3.2%) and Vanuatu (3.0%). Tonga's scores where roughly stable and Fiji actually declined by 2.1%.

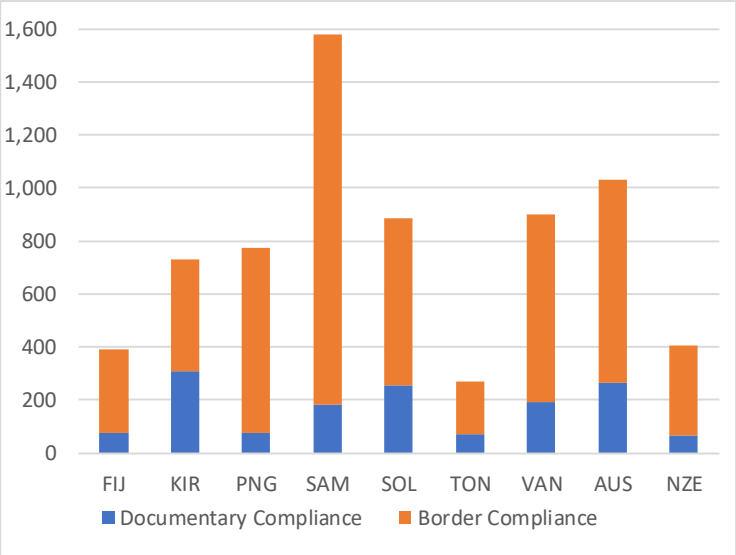
Whilst the ease of doing business scores provide a general overview of business conditions in the PHAMA Plus countries, a recent study[9] has expressed doubt as to their validity as a planning tool at country level in the Pacific Islands. These doubts are based on the observation that the rankings in the areas of starting a business and obtaining credit bear little relationship to the reforms that have been implemented, as well as the fact that countries which have undertaken similar or identical reforms are ranked very differently. This leads to a "substantial degree of scepticism" regarding the rankings and their ability to capture the costs of doing business. The fact that PICs have adopted similar legislation to that of New Zealand but have much lower rankings further calls into question the cost of doing business scores. Reflecting these concerns, in 2021 the World Bank announced that it would be discontinuing the Ease of Doing Business Report.

6.2 Cost of trade

The cost of exporting shown in figure 27 reveals large differences between countries with Samoa being the worst and Tonga the best. In Samoa, its documentation and border compliance costs for a 15-tonne shipping container amount to almost USD 1,600 (excluding land and sea freight). In Tonga the same costs USD 270. Australia and New Zealand also have high import costs (USD 639 and 447 per container respectively) compared to Singapore (USD 260).

[9] Holden P and Pekmezovic A (2020). How Accurate are the Doing Business Indicators? A Pacific Island Case Study. Asia Pac Policy Stud. 2020;7: 247-261

Figure 27. Cost of Exporting a 15 tonne Container (excluding freight charges)



Source: World Bank Ease of Doing Business Index

At least one country has expressed some scepticism about the validity of the costs presented in Figure 27, in particular the extremely high cost shown for Samoa. This suggests that the World Bank data need to be verified by independent checking.

Data on shipping costs (containerised or in other formats) within the Pacific region that allows comparison of different routes and formats (e.g. 20- or 40-foot container, refrigerated containers, bulk) over time is not readily available from public or user-pays sources. Various stand-alone surveys or other forms of manual data collation are done but significant further effort and cooperation would be required to more routinely capture and make available reliable data.

The **cost of trading between countries** is a key issue for PICs and particularly influences export competitiveness. Since 2011, the Economic and Social Commission for Asia and the Pacific (ESCAP) and the World Bank have compiled a comprehensive database on international trade costs which includes data for most of the PHAMA Plus countries and provides estimates of the costs of trade within and outside the PHAMA Plus countries. It estimates all costs in trading goods internationally, relative to those in trading goods domestically. It includes international shipping and logistics costs, tariff and non-tariff costs, including indirect and direct costs associated with trade procedures and regulations and costs from differences in language, culture and currencies.

Costs are expressed as a percentage of the value of the goods traded between two countries and covers trade in both directions. For example, a score of 80 means that the average cost of trade between two countries incurs additional costs amounting to 80% of the value of the goods compared to trading the same goods domestically. Higher scores indicate higher costs of trading between countries and a lower incentive to trade internationally compared to domestically. Costs are expressed as a percentage of the value of the goods traded between two countries and covers. Countries that are close to each other and have high volume/low-cost logistics and low tariff rates can trade at lower cost and therefore have lower trade cost scores.
Table 15 shows the most recent trade cost scores for trade between PICs and other Pacific rim countries, in most cases using data from 2016. The upper left quadrant shows the scores for intra-PIC trade, the upper right quadrant for trade between PICs and the key Pacific rim countries (Australia, China, Japan, New Zealand and USA), and the lower right quadrant covers trade between the Pacific rim countries. Intra PIC trade has an average score of 290 indicating that trade between PICs is on average 290% more expensive than trade within

these countries. Fiji has lower scores than the other Pacific countries. Trade between the PICs and the Pacific rim countries is less expensive with a score of 190. However, this is far above the cost of trade between the Pacific rim countries which has an average score of 88.

Table 15. Trade Cost Scores for PICs and Pacific Rim Countries

	PNG	SAM	SOL	TON	VAN	AUS	CHI	JAP	NZE	USA
FIJ	163	104		142	91	95	190	193	100	190
PNG		250		550	132	58	143	144	141	172
SAM				194	647	154	280	251	113	238
SOL										
TON					638	202	440	238	126	225
VAN						150	268	221	130	316
AUS							82	92	57	93
CHI								74	104	73
JAP									113	78
NZ										114

Source: ESCAP-World Bank Trade Cost Database

The trade cost rankings provide an explanation of why intra PIC trade flows are generally weak. Although the rankings are generally improving over time, further efforts are needed to reduce costs through measures such as modernising ports, upgrading logistics systems, simplifying and harmonising customs procedures and introducing automated clearances.

Another relevant reference for considering the trade context is the **Export Dynamics in the Pacific Islands** report prepared every two years by Pacific Trade Invest (see Annex 4 for extracts). These reports provide more detailed analysis within the Pacific region including perceptions on barriers to export (e.g. finance, transport and fuel costs, capacity and labour constraints), assistance needed to increase exports (e.g. more competitive transport, introductions to customers, marketing, grants and trade finance) and awareness of trade agreements (less than 65%).

The **WTO Trade Facilitation Agreement** (TFA)[10] was launched in 2017 and aims to reduce the cost of moving goods between countries. Full implementation of the TFA is estimated to reduce global trade costs by an average of 14.3%, with African countries and least-developed countries. forecast to enjoy the biggest average reduction in trade costs. The agreement contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues. It further contains provisions for technical assistance and capacity building in this area. Developing countries were expected to fully implement the Agreement from the outset, whilst other WTO members are implementing it progressively. The TFA dashboard monitors members' implementation of the TFA protocols – see Table 16 as follows:

[10] https://www.wto.org/english/tratop_e/tradfa_e/tradfa_introduction

Table 16. Implementation of WTO Trade Facilitation Agreement by PHAMA Plus Countries (percent), May 2022

Country	Percent
Fiji	97.7
Solomon Islands	77.3
Vanuatu	77.3
Tonga	68.1
Samoa	67.6
PNG	55.0

Source: TFA Database

6.3 Biosecurity

Access to Australia and New Zealand Markets

Biosecurity regulations have a significant impact on trade between the PICs and Australia/New Zealand and the PHAMA Plus Program has supported numerous biosecurity initiatives since its inception in 2011. This includes the development of new marketing pathways as well as supporting compliance with biosecurity requirements in existing pathways. Support for market access remains a priority, with current initiatives including: (i) Opening new access for fresh taro from Samoa to Australia and improving compliance of taro exports to New Zealand; (ii) Strengthening Vanuatu's Tahitian lime exports to New Zealand; (iii) Strengthening Tonga's watermelon export pathway to New Zealand following a major biosecurity failure (detection of live fruit fly larvae on-arrival in New Zealand) in 2020; and (iv) Encouraging countries to engage in and utilise reviews and risk analysis performed by The Australian DAWE to open new access (e.g. breadfruit, chillies).

Following the comprehensive review of existing market access arrangements by PHAMA Plus in 2019-20 for agricultural exports to Australia and New Zealand[11], more attention will be given to raising awareness of these existing pathways and pursing opportunities to better utilise them. The review found that whilst many items produced in PICs have market access protocols in place, most have not been used and the level of compliance and awareness surrounding the protocols is variable. Further systematic review is needed of what the feasible opportunities are and what is needed to pursue them. Work to do this is currently being scoped with NZ MPI.

Compliance, preparedness and response capacity

Across the Pacific, limited capacity to comply with biosecurity and SPS protocols means that producers and traders are unable to take full advantage of market access opportunities, resulting in reduced export revenues. Limited capacity to adequately prepare and respond to biosecurity risks in import pathways or for transboundary pests[12] also contributes to the challenges faced by PICs to take full advantage of market access opportunities. Many PICs continue to face major SPS capacity challenges across market access facilitation and core services relating to import facilitation and management of risks to animal, plant and human health. The outbreaks of fall armyworm (FAW) in PNG and the Solomon Islands, African Swine Fever (ASF) in PNG, and foot and mouth disease (FMD) in Eastern Indonesia are stark reminders of the threats posed by exotic pests and

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[11] PHAMA Plus (September 2019). Review of Existing Access for Horticultural Products, Seafood and Sawn Timber to Australia and New Zealand. Technical Report No 135, prepared by Kalang Consultancy Services

[12] Transboundary Animal Diseases are defined as epidemic diseases which are highly contagious or transmissible and have the potential for very rapid spread, irrespective of national borders, causing serious socio-economic and possibly public health consequences. https://www.fao.org/ag/againfo/programmes/en/empres/diseases.asp. Transboundary plant pests and diseases are migratory pests that pose a significant threat to food security, trade, and livelihoods of people in the affected countries, and generate huge losses of crops and pastures. Preventive measures, early action, and long-term solutions are essential for protecting crops against such pests and diseases https://www.fao.org/transboundary-plant-pests-diseases/en.

diseases, and their impacts on productivity, food security and market access. The major biosecurity and SPS compliance challenges are outlined below, together with how PHAMA Plus has responded. Consultations are underway at the time of preparing this PECA to continue addressing these challenges into the next phase of PHAMA Plus.

Challenges
• Inadequate capacity to implement food safety systems based on international standards to ensure the safety and quality of exports – many PICs either do not have food quality standards or lack the resources to implement and monitor them.
• Fresh produce exports to Australia and New Zealand are regularly found to be non-compliant due to detection of pests and diseases, despite having a phytosanitary certificate issued by the exporting authority to certify that the consignment has been inspected and found free from pests and diseases of quarantine concern.
• The inability to detect and respond to the incursion of exotic pests and diseases – such as ASF, FAW, Coconut Rhinoceros Beetle (CRB) and Coffee Berry Borer (CBB) - which threaten food security and economic livelihoods, as well as the natural environment and ecosystems of the Pacific.
• Limited SPS negotiating and scientific capacity, which results in long delays in the processing of market access requests by importing countries. With bilateral negotiations between PICs and export destinations, there is limited capacity to better understand importing country requirements and negotiate improvements to existing pathways.
• Countries recognise the importance of managing biosecurity risks (e.g. soil, snails, insects) associated with the movement of sea containers.
• Trade in a range of products has stagnated, and in some cases declined, driven by increases in regulatory and/or commercial requirements, lack of compliance capacity, or lack of awareness of the available market access pathways.

These key challenges at country level reflect systemic governance and enabling environment issues as well as issues specific to SPS and biosecurity. For example:

- Lack of up-to-date legislation and regulations and/or the capacity or priority to strengthen and enforce them.
- Inadequate institutional arrangements, resourcing and prioritisation of biosecurity, and acknowledgement of its link to food security, food safety and rural economic development.
- The need for biosecurity agencies to deliver services across import, export and domestic (e.g. pest management) issues and the conflicting priorities between these.
- Over-reliance on government agencies to develop, implement and enforce biosecurity activities rather than recognition of shared responsibilities including delegation of certain activities.
- Lack of capacity to implement and/or enforce procedures due to both technical capacity and governance issues (within government services and by private sector or other third parties).
- Lack of standards and detailed operational procedures.

The PPPO is the key regional agency for biosecurity and trade protocols for plant-based products. PPPO is hosted by SPC and is overseen by the PPPO Council which meets every three years, and the Executive Committee whose members are Cook Islands, Tonga, New Caledonia, Solomon Islands, FSM and Nauru. The PPPO is particularly important for the smaller countries that have limited biosecurity and SPC capacity. Strengthening the capacity and resourcing of the PPPO and its Secretariat is a key part of improving the state of biosecurity systems in the Pacific region.

Substantial progress has been made towards invigorating the equivalent mechanism for animal health (Pacific Heads of Veterinary and Animal Production Services (PHOVAPS). PHOVAPS is also hosted by SPC and support was provided by PHAMA Plus during 2020-2022 towards its rejuvenation. These efforts are continuing through support from DAWE for a PHOVAPS secretariat position.

The equivalent mechanism for food safety is under the Codex Alimentarius Commission including through the Coordinating Committee for North America and South West Pacific and national-level committees. The chair of the Committee rotates between countries via their relevant agencies. There are challenges in maintaining or strengthening regional and national mechanisms including stakeholder engagement in relevant international standards and procedures.

7. Gender Equality, Disability and Social Inclusion

7.1 Gender Equality

Across the Pacific, women make important contributions to agriculture and rural livelihoods and play a vital role in the care and reproduction of households and communities. However, persistent gender inequalities, such as unequal access to productive resources – including land, services and inputs, finance, training – and information about markets and institutions hamper the realisation of women's human and productive potential. These factors impact on the effectiveness of export markets. FAO research shows that in the majority of cases, men's work such as clearing land, ploughing, planting and harvesting of export crops is more likely to be paid whereas women who are more involved in activities such as weeding, watering and maintenance of gardens - in addition to providing care to family members - are not paid. Another common finding is that mainstreaming of gender perspectives in agriculture and other rural sectors is not routinely practiced. While agriculture policy frameworks include some commitment towards gender equality, resources are not allocated to implement these policies or commitments.[13]

In addition, it is important to highlight that the vast majority of formal businesses, particularly in the export market, are owned and controlled by men. Women are subject to inefficiencies and limitations more than men when it comes to doing business in the Pacific. They are often less likely to have access to land and are often disadvantaged by family, marriage, and inheritance laws and practices. They often have greater difficulty in accessing finance, and the justice system for resolving commercial disputes. Still women are significant private sector players, and they also contribute to agricultural production activities in export markets, though their contribution is often unpaid and/or under-valued. There is a wealth of evidence showing that inequalities in access to productive assets reduce women's productivity and the overall returns of export markets. There is significant scope to strengthen the role of women in export markets across the Pacific.[14]

In commercially important export crops such as coffee and kava, women tend to be relegated to support roles. For example, while only 2% of individual farmers producing kava in Fiji are women, they provide significant labour in roles such as weeding, pruning and general upkeep right up to the harvest stage.[15] In such cases, women generally do benefit from their support role as a contributor to the household economy[16]. However, they often do not get acknowledged for their support. Further, their decision-making is limited and hence is their access to information on inputs, pricing, etc. Despite a growing number of micro-enterprises being led by Pacific women, their access to financial services is constrained[17]. Women tend to be responsible for providing food and cash for daily household necessities and nearly 90% of market vendors in the Pacific are women[18]. However, they are mostly constrained to involvement in subsistence agriculture or in crops with relatively low economic value.

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[13] *https://www.spc.int/updates/blog/2020/07/lack-of-recognition-for-womens-contribution-to-agriculture*
[14] *IFC, (2010), Economic Opportunities for Women in the Pacific*
[15] *PHAMA, 2017, Fiji Kava Value Chain Analysis*
[16] *Market Development Facility 2017, Beyond Income*
[17] *Hedditch and Manuel, 2010, Gender and Investment Climate Reform Assessment, Pacific Regional Executive Summary, International Finance Cooperation, Sydney, Australia*
[18] *World Bank et al. (2013) Papua New Guinea Country Gender Assessment 2011–2012.*

However, women's contribution to the economy should not be underestimated. In Solomon Islands, the annual turnover at the Honiara Central Market is between USD 10-16 million, with women responsible for about 90 percent of this marketing activity – both as bulk-buyers from farmers and as retailers. In PNG, food production is largely the responsibility of women.

As in many other societies, economically active women suffer from a double workday – combining responsibilities for home and family with their economic activities. In PNG, for example, women work on average nearly twice as many hours as men. In Tonga, women work over 50 percent longer than men on non-economic activities[19].

Domestic violence is a serious issue in the Pacific and remains high throughout the PHAMA Plus countries: between an estimated 40% in Tonga to highland provinces of PNG where it is estimated at 100%[20]. In terms of Gender Inequality Index Ranking, Fiji, Tonga and Samoa have improved to within the top 100 countries, while Solomon Islands, Vanuatu and PNG remain in the "low development" cluster: with PNG ranked 159th of 189 countries, the lowest in the Pacific[21].

Transformation of agriculture, underway in most PICs, has resulted in increasing numbers of women exiting agriculture. Tonga is one of the Pacific countries with the highest proportion of women employed in the non-agricultural sector at 48%. In Samoa, 80% of the private sector is comprised of micro businesses, of which women are estimated to head over 40%.

7.2 Youth

Youth – defined as individuals aged between 15 and 24 years – constitute 34-40% of the population in the PHAMA Plus countries. A staggering 70-80% of Pacific youth are estimated to be economically "idle" (not in education, employment or looking for work)[13]. Estimates of lost output due to unemployment in the Pacific have been placed at approximately USD 2 billion in 2015, with the majority of it linked to youth unemployment[22].

The drift of rural youth to urban areas is common in societies undergoing agricultural transformation. However, the situation in the Pacific is exacerbated by the size of the youth cohort and the lack of economic opportunities in secondary and tertiary industries (compared to, for example, countries in South-East Asia undergoing similar transformational processes). The lack of economic opportunities and rural-urban drift has contributed to rising crime and instability. Female youth participation is even lower, with young women almost twice as likely to be unemployed as young men in Fiji, Samoa, Solomon Islands and Tonga. The issues facing youth include gender inequality, violence against women, low education, poor health, and limited participation in decision-making.[23]

Young people exit agriculture for a range of reasons, but common are both the lack of capacity to voice their opinion and make decisions (as land and production assets are generally controlled by elders) and the ever-decreasing size of smallholder farms which become unable to provide a living, due to large numbers of children inheriting land and forming their own families. This is coupled by a personal desire to move to urban centres, as being a farmer may be perceived as an inferior occupation. Opportunities for PHAMA Plus to engage youth are therefore both at the rural community level, where the image of being a farmer can be transformed to the image of being an entrepreneur; as well as at higher levels along the value chains including

19 IFC, (2010), Economic Opportunities for Women in the Pacific
20 United Nations Women Global Database on Violence against Women, 2018
21 United National Development Program, 2018 Human Development Report
22 Curtain, Close and Ravulo, Australian National University, 2013, Youth Employment issues in the Pacific
23 The Pacific Community, 2013, The Significance of Youth in Sustainable Development in the Pacific

employment in industries and services related to value adding and technology solutions in marketing and business development.

7.3 Disability

The percentages of the population with some form of disability (physical, psychosocial and/or intellectual) in PHAMA Plus countries are reported to vary greatly: from lows of 1.4% and 5.9% of the population in Fiji and Samoa; to highs of 12% in Vanuatu, 13.4% in PNG and 14% in Solomon Islands[24].

People and households living with disability are disadvantaged in access to education, employment, housing, transport, socio-cultural spheres and public services. It is even more difficult for women living with a disability. Economic exclusion as a result of disability is not confined to people with severe disabilities but occurs along the continuum of "being able to do less". This includes a range of impairments related to vision, hearing, limited mobility etc., which are highly relevant in terms of accessing economic resources. Impairments increase with age (highest prevalence of disability is in age 50+) with significant consequences for aging agricultural communities. There are opportunities to improve disability inclusiveness in programs such as PHAMA Plus, which work beyond the farm gate and consider entire value chains. There is an opportunity to work with partners to tackle the stigma that surrounds disability, one of the largest barriers to participation in community and economic life.

7.4 PHAMA Plus GEDSI Approach

PHAMA Plus has established a framework of four Gender Equality, Disability and Social Inclusion (GEDSI) drivers: (i) addressing adverse cultural norms; (ii) strengthening visibility, voice and representation; (iii) changing business culture and practice; and (iv) building assets and access to assets. These drivers provide a framework within which women, youth, persons with disabilities (PWD) and remote communities are supported in their roles as market actors: including traders, suppliers and producers.

PHAMA Plus is working with a number of key export partners across the Region with a focus on strengthened services to facilitate improved productivity and quality and improving farmer's access to information and inputs to encourage more effective, sustainable and gender equitable farming and business practices, and exploring ways to develop and facilitate the business acumen, skills and knowledge of women, youth and PWD.

8. Vulnerability to shocks

The PICs are particularly vulnerable to shocks of various types which disrupt agricultural production and marketing, often with serious short-term impacts on livelihoods, and with longer term implications in terms of risk avoidance and willingness to invest. Periodic but unpredictable shocks also stretch the capacity of PIC governments to provide social protection and support disaster response efforts for affected communities, often leading to diversion of resources from development to relief and recovery. The oceanic environment makes the region highly vulnerable to natural disasters including destructive climatic events (hurricanes, droughts etc.); and the current COVID-19 pandemic has exposed many vulnerabilities, including the region's fragile food security situation. The agricultural sector is also vulnerable to pest and disease incursions, as shown by recent outbreaks of ASF, FAW and the continuing spread of CRB Guam biotype.

24 United Nations Economic and Social Commission for Asia and the Pacific, 2015, Disability at a Glance Report

8.1 Natural Disasters

The vulnerability of the PHAMA Plus countries to climate change is well understood and calls for purposeful adaptation and mitigation measures for the foreseeable future. The variability of climate around these medium/long-term climate trends also presents challenges, and there is the ever-present risk of natural disasters calling for stronger disaster preparation and recovery measures.

Climate variability in the Southern Pacific is strongly influenced by the El Niño Southern Oscillation, a cyclical phenomenon which can be measured and forecast. El Niño events occur when the Southern Oscillation Index (SOI) is negative for three months or more. These events are usually (but not always) associated with dry years or droughts in the South-Western Pacific, including the PHAMA Plus countries, New Zealand and Eastern Australia. There have been two El Niño events, one prolonged, in the last decade which is around the long-term average. This included a period from mid-2009 to mid-2010 and an intense two-year El Niño from mid-2014 to mid-2016 which caused severe drought in many Pacific countries. When the SOI is positive for three months or more this is known as a La Niña event which is often (but not always) associated with wetter than normal conditions. The Australian Bureau of Meteorology reports that the SOI is currently (May 2022) strongly positive indicating continuation of the La Niña event that brought heavy rainfall to the Western Pacific and Eastern Australia in 2021 and 2022.

Apart from droughts, which will continue to occur from time to time, the PICs are amongst the most vulnerable to other natural disasters including hurricanes/cyclones, floods, earthquakes, volcanic eruptions and tsunamis. There is evidence that the frequency and severity of such events is on the increase. Experience has shown that such disasters can disrupt production and exports of many agricultural commodities, sometimes taking years to recover. All the PHAMA Plus countries are vulnerable to natural disasters, especially Fiji, PNG and Vanuatu because of their location in relatively higher latitudes. The recent undersea volcanic eruption in Tong caused extensive crop damage which will take some time to recover.

On average, the region experiences 9-12 tropical cyclones per season (November to April) of which 2-3 are classified as severe. In 2021 there were seven cyclones, three of them severe (two category 5 and one category 3) as well as seven tropical depressions or disturbances. The Australian Bureau of Meteorology monitors the frequency of cyclones in the Pacific and makes annual forecasts of likelihood of above, below or average cyclone frequency[25].

Climate change scenarios[26] affect the likely future incidence of climate-related natural disasters. Scenarios for some key climatic indicators including temperatures, sea levels, rainfall and the incidence of tropical cyclones are given in Table 17 below.

Table 17. Climate Change Scenarios for the South Pacific Region

Parameter	2030	2055	2090 Emissions		
			Low	Medium	High
Temperature	+0.5 - +1.0^{0}C	+1.0 - +1.5^{0}C	+1.5 - +2.0^{0}C	+2.0 - +2.5^{0}C	+2.5 - +3.0^{0}C
	Warming will be about 70% of the global average because oceans are warming more slowly than land. However, there will be large increases in the incidence of extremely hot days and nights.				
Rainfall	Increasing average rainfall in northern and equatorial region between 10^{0}S and 5^{0}N. Little change elsewhere.				

[25] http://www.bom.gov.au/climate/cyclones/south-pacific

[26] *Source: Australian Bureau of Meteorology and CSIRO (2011). Climate Change in the Pacific: Scientific Assessment and New Research. Volume 1: Regional Overview. Volume 2: Country Reports.*

Parameter	2030	2055	2090 Emissions		
			Low	Medium	High
	Widespread increase in number of heavy rain days (20-50mm). Extreme (1 in 20 years) rainfall events to become much more frequent. Droughts to occur less frequently.				
Evapotranspiration	Increasing temperatures will outweigh rainfall effects leading to increasing aridity, particularly in the northern and equatorial region.				
Humidity	No significant changes expected.				
Wind speed	Small increase in equatorial and northern regions. Small decrease in the South Pacific.				
Sea level	Similar to global averages – 0.18 m to 0.59 m sea level rise by 2080-2099. However, the observed rate of sea level rise is near the upper end of the projected range so higher rates cannot be ruled out. Projections cover a wide range because of uncertainty about behavior of polar ice caps.				
Ocean acidity	General increase, which may affect the health and sustainability of coral reef ecosystems.				
Tropical cyclones	Large amount of uncertainty in projections. However, frequency of cyclones is most likely to decrease by the end of the 21st century. South of the equator, most models predict an increase in the number of more intense storms.				

Median economic damage from natural disasters ranges from 1% to 20% of GDP but can be much higher as can be seen from Table 18 below. Storms (hurricanes, cyclones) are the most damaging in economic terms but droughts affect the most people (Table 19).

Table 18. Probability and Impact of Natural Disasters

	FIJ	PNG	SAM	SOL	TON	VAN
Likehood a/	70.3	81.1	27.0	51.4	29.7	56.8
Median damage (% of GDP)	1.3	0.1	21.0	8.0	4.9	18.0
Maximum damage (% of GDP)	20.2	1.3	161.8	14.0	28.2	131.2
Median population affected (%)	0.8	0.4	1.6	1.1	3.4	5.3
Maximum population affected (%)	39.7	32.7	6.7	53.0	100.0	87.0

a/ Probability of at least one disaster in a given year

Source: Lee D, Zhang H, and Nguyen C. (2018)

Table 19. Impact of Pacific Islands Natural Disasters by Type (1980-2016)

	Estimated Damage (USD m)	Population Affected (000)
Storm	62.5	36.6
Drought	45.0	290.9
Flood	26.8	27.2
Earthquake	21.0	3.9
Others a/	70.8	10

a/ Includes volcanic eruptions, epidemics, landslides and wild fires

Source: Lee D, Zhang H and Nguyen C (2018)

8.2 Pests and Diseases

Several recent events have exposed the PIC's vulnerability to pest and disease incursions that could have catastrophic impacts on the livelihoods of rural communities. This is evident from recent outbreaks of ASF (PNG), FAW (PNG and Solomon Islands), FMD (Eastern Indonesia) and Khapra beetle (Timor-Leste). PHAMA Plus completed an assessment of the potential social and economic impact of ASF following the detection of the disease in the PNG highlands in early 2020. ASF causes very high mortality rates in pigs and there is no treatment and no vaccine. It can only be contained by controlling the movement of pigs and by slaughtering affected or suspect herds. The disease has spread rapidly through Asia and there is a significant risk that it could reach other PICs in the coming years. Its social and economic impact reflects the importance of pigs in Pacific communities as a source of income, food and for ceremonial purposes. PHAMA Plus estimated the cost of ASF in PNG and in the other PHAMA Plus countries under a range of scenarios, ranging from single isolated outbreaks to endemic disease. The range of possible outcomes is broad but could be catastrophic under the worst-case scenarios (up to three percent of GDP), particularly in the Polynesian countries where pigs are more numerous relative to human populations. PHAMA Plus is supporting individual countries to strengthen their biosecurity systems to prevent its incursion, and surveillance for early detection and control. Once established, measures to contain the spread of the disease are very costly.

The detection of FAW in Australia and PNG in February 2020, and its subsequent spread, has also rung alarm bells. FAW has spread rapidly around the tropical regions of the World, and due to its strong dispersal capacity, it is very likely to appear in other PICs in the near future. FAW mostly affects cereal crops causing yield losses of 25% to 50%. Control is possible using integrated pest management approaches, but there have been no successful attempts to eradicate the pest or even to limit its spread. Its impact in the Pacific is not expected to be as great as ASF, since cereal crops are not of major importance in the region – with the exception of sugar cane in PNG and Fiji. Even so, the high probability of its spread, and the possibility of it attacking non-cereal crops poses a serios risk to rural livelihoods.

The Guam biotype of CRB is causing extensive damage to both coconut and oil palm plantations in several PICs. This pest is not susceptible to the biological control agent which has limited the impact of CRB in the region until now. Amongst the PHAMA Plus countries, Solomon Islands is most affected so far, but all countries are vulnerable. Unless the spread of the Guam biotype can be contained, or a new biological control method is found, the impact on coconut production may be severe, with obvious implications for food security and income generation, especially in remote areas.

Pest and disease outbreaks like those mentioned above are usually most damaging when they first invade previously un-affected areas. The impacts usually moderate over time as the agro-ecosystem re-balances, natural enemies multiply, hosts develop resistance and farmers learn how to manage the pest. Cocoa pod borer in PNG is an example where production plummeted initially but has now recovered to above pre-outbreak levels. Even so, the impacts on rural livelihoods can be serious especially when outbreaks coincide with other events like the COVID-19 pandemic.

8.3 COVID-19

Pandemic Statistics

As of May 2022, the Pacific Islands remain less affected in human health terms by COVID-19 than most other parts of the World. Whilst case numbers have soared during the last 12 months, Table 20 shows that reported cases in the PHAMA Plus countries have averaged only 1.4% of population since the onset of the pandemic, compared to 18.7% in the rest of the Pacific, although under-reporting in PNG and some other countries may have contributed to this apparently low incidence. The largest number of reported cases and deaths is in Fiji, although Solomon Islands ranks worse on a per capita basis. The other PICs have generally fared much worse

with an overall incidence of 18.7% of population. Australia and New Zealand have incidence rates of 25.1% and 20.2% respectively.

Table 20. Pandemic History of COVID-19 in the Pacific Islands

	Cases a/ Reported	Deaths Reported	Pop'n '000	Cases Percent
Solomon Islands	18,174	146	106	17.2
Fiji	64,725	862	896	7.2
Samoa	11,045	23	198	5.6
Vanuatu	8,201	14	307	2.7
Tonga	10,950	11	687	1.6
PNG	43,876	651	8,947	0.5
Total PHAMA Plus countries	**156,971**	**1,707**	**11,142**	**1.4**
Cook Islands	5,390	1	18	30.6
Palau	4,782	6	18	26.4
French Polynesia	72,821	649	280	26.0
Guam	40,723	358	169	24.1
New Caledonia	61,185	312	272	22.5
Northern Marianas	11,305	34	58	19.6
American Samoa	5,999	30	55	10.8
Wallis and Futuna	454	7	15	3.0
Niue	9		2	0.6
Marshall Islands	17		59	0.0
Nauru	3		11	0.0
F.S. Micronesia	7		115	0.0
Tokelau			1	0.0
Tuvalu			12	0.0
Total Other Pacific	**202,695**	**1,397**	**1,085**	**18.7**
Australia	6,442,558	7,670	25,700	25.1
New Zealand	1,026,715	892	5,084	20.2
Total Australia/NZ	**7,469,273**	**8,562**	**30,784**	**24.3**

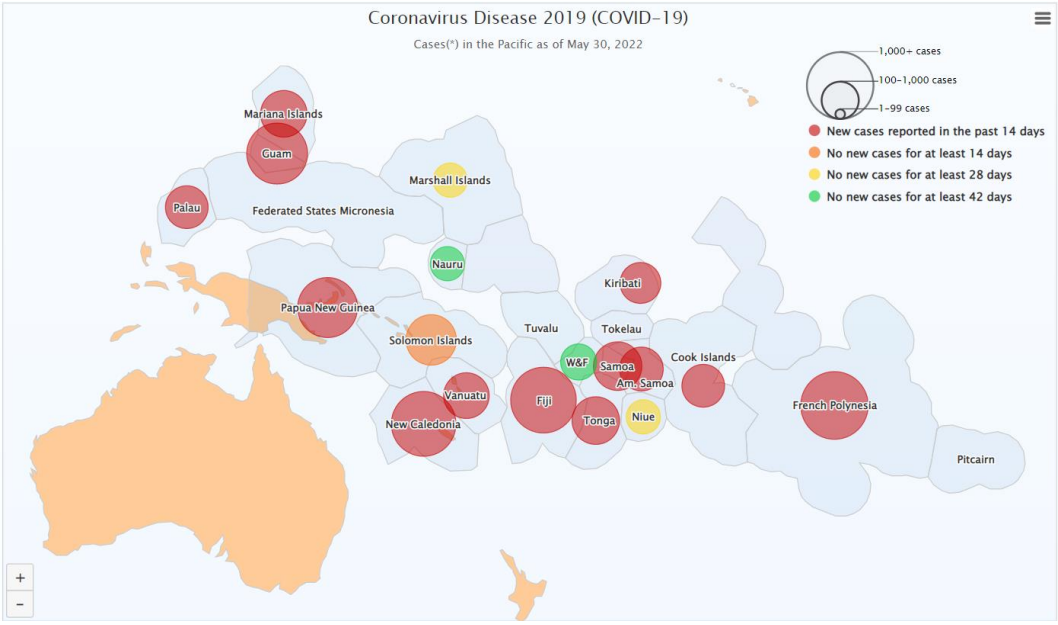
a/ As of 13th May 2022

Source: WHO Coronavirus Dashboard *https://covid19.who.int/region/wpro/country/*

Remoteness and isolation initially protected most PICs from the worst of the pandemic and the delayed arrival of the virus has given them time to prepare. However, whilst the health impacts have been less than in other parts of the World, the impact of the necessary control measures in the PICs themselves, and in their trading partners, as well as the steep global economic downturn, has affected PHAMA Plus stakeholders in many ways, with predominantly negative impacts. More so because of concurrent events including Tropical Cyclones, the Tonga volcanic eruption and outbreaks of ASF and FAW in PNG, both with the potential to spread to other PICs.

The current COVID-19 status of the PICs is shown in Figure 28. All countries other than Marshall Islands, Nauru, Wallis and Futuna, Solomon Islands and Niue have reported cases during the last 14 days.

Figure 28. Current (30th May 2022) COVID-19 Status of the Pacific Islands



Source: ***COVID-19: Pacific Community Updates | The Pacific Community (spc.int)***

Looking ahead, vaccination coverage will be key to living with COVID in the coming years. Samoa and Tonga have achieved near 100% double dose coverage, Fiji around 90%, but only 65% and 35% respectively in Vanuatu and Solomon Islands. PNG is remains by far the most vulnerable with only 3% of people having received a double dose.

Response Measures

All six PHAMA Plus countries mounted early and robust measures to prevent the entry of COVID-19, and to control its spread when outbreaks occurred. These measures were largely successful, in both absolute case numbers and infection rates. As shown in Table 21, with 1.4 cases per 100 inhabitants, the PHAMA Plus countries have fared better than all countries or regions shown other than China, much better than the global average of 6.6 cases per 100, and vastly better than the UK, Australia, USA and NZ.

Table 21. Status of COVID-19 in Various Countries, May 2022

	No of Cases ('000)	Pop'n million	Cases per 100
UK	22,145	68	32.5
Australia	6,443	25.7	25.1
USA	81,417	332	24.5
NZ	1,027	5.1	20.2
World	517,649	7,900	6.6
India	43,116	1,405	3.1
PHAMA Plus Countries	157	11.1	1.4
China	1,552	1,414	0.1

Source: World Health Organisation (WHO) Coronavirus Dashboard

The response measures which both delayed and contained the spread of COVID-19 in the PHAMA plus countries include:

Border Closures: All countries instated border closures in various forms, in most cases beginning with excluding travellers from China, subsequently from other affected countries, all foreign nationals, and eventually all travellers including citizens and residents. In some cases, before the bans were imposed, arriving travellers were required to enter quarantine or self-isolate. Most countries also prevented citizens and residents from travelling overseas. These border closure measures were successful in delaying incursion of the disease in most cases up until mid-late 2021 and early 2022.

Internal Movement Restrictions: Most countries imposed bans or restrictions on domestic or inter-island travel as a precaution against spread of the disease if an outbreak occurs. Five countries also imposed curfews requiring people to remain indoors at night unless performing essential services.

Aircraft and Shipping Movements: Fiji, Samoa, Solomon Islands and Tonga closed their international airports to both passengers and air cargo, with some exceptions (e.g. Fiji) for air freight of perishable goods. Air cargo charges also skyrocketed. In the other countries, the restrictions on passenger movements almost brought their international airports to a standstill, although most have re-opened to some extent in the first half of 2022. Fiji, PNG and Solomon Islands also suspended or restricted internal air travel. Fiji suspended inter-island shipping movements as well. Cruise ships and yachts have been prevented from berthing in Fiji, Samoa and Tonga. The cruise industry has been devastated world-wide and it seems likely that cruise ships will be a rarity in the Pacific for the medium term. Samoa and Tonga also banned landings by fishing vessels. Solomon Islands declared Honiara a national emergency zone, requiring non-residents of the city to return to their home provinces. This resulted in 27 deaths in the lead up to Cyclone Harold when passengers were swept overboard in high seas when returning to their village.

Lockdowns and Closures: All countries declared states of emergency to enable various lockdown and closure measures to be applied. Various other measures were imposed to reduce the risk of community transmission including banning public gatherings (including church services) and school closures. Most of these restrictions were subsequently relaxed.

Vaccination: The rollout of COVID-19 vaccination programs in the PHAMA Plus countries has been slow compared to Europe and North America where mass vaccination begun in December 2020 and Australia and New Zealand in February 2021. The PHAMA Plus countries begun vaccinating in March 2021 with very mixed achievements. Samoa, Fiji and Tonga have all reached or exceeded 70% full vaccination coverage compared to 38% in Vanuatu, 24% in Solomon Islands and only 3% in PNG. These figures compare to over 80% in both Australia and New Zealand.

Potential Impacts: General

At the time of writing, the global pandemic continues but with case rates and deaths now running at about 15% of the peak of January 2022. However, there continues to be great uncertainty about where the pandemic will go from here, given the likelihood that new variants will emerge, particularly in regions where access to vaccines is limited. The relatively slow roll-out of vaccination in some of the PICs suggest that the region will remain vulnerable to recurrent outbreaks which may require re-imposition of social isolation and movement restrictions.

An article in The Economist[27] forecast dire consequences for global poverty levels. The article reports World Bank estimates that the pandemic will push between 71 million and 100 million people into extreme poverty, wiping out three years of progress in poverty eradication, with almost half of the newly destitute in South Asia.

[27] *The Economist (26th September 2020). From Plague to Penury: The Pandemic is Plunging Millions Back into Extreme Poverty.*

United Nations projections are even worse, suggesting that up to 490 million people will descend into poverty, reversing almost a decade of gains. Worst affected are the urban poor who have lost their livelihoods and fled back to rural areas. The World Food Program estimated that the number of people unable to afford enough to eat could double before the end of 2020. Soaring food prices have subsequently magnified that estimate. Governments in poor countries are responding with social protection measures including cash handouts, but on average these amount to a meagre USD 4.00 per head.

Impacts in the PICs

Overview

The impacts of the pandemic are now becoming evident in social and economic statistics, and indicate that the consequences are adverse and far-reaching. The steps taken by PICs to control COVID-19 brought about a steep reduction in economic activity (see IMF data in Table 2), falling incomes and declining demand for a broad range of goods and services. The Pacific Rim countries experienced strong economic recovery in 2021, which is continuing through 2022. However, all the PICs (apart from PNG) experienced a second year of recession in 2021 and are only just beginning recovery in mid-2022.

Economic Impacts

As **unemployment** rose in urban areas, this forced some urban residents to return to their villages and revert to a semi-subsistence lifestyle. These effects are most apparent in countries with larger urban populations, especially Fiji, and with greatest dependence on tourism, Fiji and Vanuatu. This explains why the economic contraction has been most severe in Fiji and Vanuatu with 2020 GDP declines of 15.2% and 5.4% respectively. Women across the Pacific are more likely than men to have lost their jobs as a result of the pandemic. For example, in PNG 27% of surveyed female workers lost their jobs compared to 19% for men[28].

Restrictions on the movement of people and goods have impacted the **capacity of PICs to export** agricultural products, particularly perishable produce through both formal/commercial and informal marketing pathways to diaspora communities. The global rebound in trade flows which began in mid-2020 has seen a global shortage of shipping capacity and sea containers with sea-freight rates increasing five-fold (see Figure 21). Air freight rates have also soared both during the period of lockdowns and in the recovery period. The suspension of passenger flights greatly reduced air cargo capacity through the peak 2020 and 2021 winter seasons. Fiji is the major fresh produce exporter, supplying markets in Australia, New Zealand, USA and East Asia and was the most severely impacted. Shipping services, important for root crop exports from Fiji, Samoa and Tonga have been reduced, and costs have soared. Restrictions on internal movement of goods at times limited their ability to assemble shipments, although most of these restrictions have now been removed. Exports of non-perishable commodities such as palm oil, copra/coconut oil, cocoa, coffee and timber have also been delayed due to internal movement constraints, shipping delays and escalating costs.

Multiple factors associated with the pandemic have eroded the PIC's already fragile **food and nutrition security**. Early control measures such as restrictions on internal movement of goods and people, including night-time curfews which prevented overnight transport of fresh produce to urban markets, and social distancing measures applied in urban market places. Port and airport closures and enhanced quarantine measures also reduced the availability and increased the prices of imported foods, recognising that all PICs are reliant to a significant extent on imported foods, particularly cereal products, meat and dairy products. Internal distribution networks for both domestic and imported foods were also disrupted with implications for food security in rural areas.

[28] *https://blogs.worldbank.org/eastasiapacific/empowering-women-resilient-recovery-east-asia-and-pacific*

As constraints on local food production and distribution have eased, from mid-2021 global food prices skyrocketed (see Figure 16) due to production shortfalls and resurgent global demand. The Ukraine war has pushed prices even higher, accentuated by soaring energy and transport costs, causing serious food price inflation in the import-dependent PICs. The combined effect has been a general deterioration in the region's food and nutrition security.

Countries with significant **tourism sectors** are additionally affected. Fiji, as the most-tourism dependent economy, is worst off, followed by Vanuatu. The total cessation of tourist arrivals paralysed the tourism sector with widespread layoffs of staff and cancellation of supply arrangements including food and beverages. The impact of this for women, who are employed in large numbers is the tourism sector was particularly high. This came at a time when fresh food supply was already suffering from disruptions to domestic and export supply chains. The cruise ship industry, while less important in terms of employment and procurement, was also suspended for more than two years and is only now resuming. Given the disastrous role the cruise ships played in the early spread of COVID-19, recovery is likely to be gradual. Fiji, Vanuatu, Samoa and Tonga were all affected by the suspension of the cruise liners. Non-cruise tourism is recovering in 2020 but remains vulnerable to and reversal of travel restrictions.

The impact was also felt through Australia and New Zealand **seasonal employment** schemes. There have been serious agricultural labour shortages in Australia and New Zealand throughout the pandemic. Some workers engaged in these schemes were able to extend their stay, and efforts are now underway to re-open them. Special arrangements have been made to bring in workers to address labour shortages and full resumption of the schemes now needs to be expedited.

Rising unemployment in the diaspora communities was expected to result in lower **remittance flows** to the PICs, imposing further downward pressure on national economies, most importantly in Tonga and Samoa which have high dependency on remittances. However, data for 2020 (see Figure 9) indicate that remittances actually rose by 16% compared to pre-pandemic levels. Travel restrictions have also triggered an increase in the proportion of remittances passing through formal (banking) channels. Reports from money transfer services suggest that remittances rebounded further during 2021.

Fiscal Impacts

Declining economic activity has reduced government revenues everywhere, including in countries scarcely affected by the disease. At the same time, many governments, especially OECD members, have adopted aggressive fiscal and monetary policies to mitigate the economic downturn, resulting in expanding fiscal deficits, increased borrowing and money printing and rising inflation. PIC governments have limited capacity to adopt fiscal stimulus measures such as these, in view of their weak fiscal position before the crisis and limited borrowing capacity. Consequently, they have struggled to provide relief to vulnerable groups, further increasing their aid dependency, at the same time as they are affected by global inflationary pressures.

In the longer-term it is possible that the PICs will be affected by global pressure to close down or regulate **wet markets** because of their implications in the emergence of new zoonotic viral diseases including COVID-19 as well as severe acute respiratory syndrome (SARS) and avian influenza. The main concern is about viral pathogens jumping from domestic animals and wildlife (e.g. bats) to humans via wet markets in China. It is not suggested that markets in the Pacific are implicated in any of these epidemics. However, PICs could come under pressure to improve hygiene and food safety in fresh produce markets as part of global efforts to control the emergence of new viral pathogens. This may not be a bad thing, given the overcrowded and unsanitary conditions in many urban markets however, it would require major investments in new market facilities and regulatory systems.

Access to Inputs

Some control measures, particularly those relating to land and inter-island transport of goods and people have restricted access to agricultural inputs. However, in many cases this has had limited impact as PIC farmers generally use few agricultural inputs apart from labour and planting materials, the latter mostly vegetative.

Financial Services

Access to financial services has always been problematic for producers and SMEs in the PICs. There are reports that financial institutions have become even more cautious in approving loans since the onset of the crisis at a time when the need has increased to sustain businesses through the crisis and invest in post-crisis recovery measures. Various donors including New Zealand MFAT and the ADB have recognised the importance of access to finance in the context of COVID-19 and have launched new initiatives to develop enhanced SME financial services.

Social Impacts

All the above disproportionately affect women, people with disabilities, the **poor and marginalised groups** via reduced incomes, food and nutrition security and other dimensions of sustainable livelihoods. There are suggestions that the urban poor are affected more than rural communities who can produce at least some of their own food. In both rural and urban areas gender equity, disability and social inclusion challenges are exacerbated. Impacts include reduced access to education for girls increased domestic violence during lockdowns, and short-term coping strategies, such as selling assets, eating less and cheaper food, taking children out of school etc., that have adverse long-term consequences. The economic impacts of COVID- 19 are felt especially by rural women and girls with disabilities, who generally earn less, save less and are more likely to live close to poverty than are able-bodied women and men. Emerging evidence from the COVID-19 response also shows an increase in domestic violence and abuse against women and girls driven by tensions in the household related to isolation, food and financial insecurity, and to the closure of schools. Fiji, for example reports calls to the national domestic violence helpline during the lockdown period — between February and April 2020 — increased by over seven times[29].

Pacific Trade and Invest (PTI) has been conducting monthly business confidence surveys[30] in the PICs since the onset of the Pandemic in 2020. The findings from the March 2022 survey have identified early signs of recovery in business confidence and the challenges being experienced in re-building businesses, and the support that they are seeking. Key findings were as follows.

Impacts on Businesses in the Pacific:

- 84% of Pacific businesses reported a negative impact due to COVID-19 over Q1 2022.
- 74% of Pacific businesses have reported a decline in revenue due to COVID-19 over Q1 2022.
- 84% of Pacific businesses are confident that their business will build back stronger from the COVID-19 crisis.

Challenges:

The top three challenges facing businesses as a result of COVID-19 are:

- Increasing costs of products/raw materials (88%)
- Poor cashflow (87%)

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[29] https://www.globalcitizen.org/en/content/covid-19-girls-education-asia-pacific/
[30] https://www.pacifictradeinvest.com/services/pti-pacific-business-monitor

- Not knowing how long the crisis will last (84%)

Support Needed:

The top three measures businesses require to build back stronger are:

- Better cashflow (88%)
- Financial support (86%)
- Review or update of business processes (86%)

83% of female-led businesses are confident that they will be able to build back stronger, compared to 85% of male-led businesses.

Key findings from the **ACIAR** (2020) assessment of COVID-19 and food systems in the Indo-Pacific include:

- The COVID-19 pandemic has exposed and amplified existing vulnerabilities in food systems in the region since early 2020. Women, girls, people with disabilities and other vulnerable groups have been hardest hit.
- Pre-existing vulnerabilities include: (i) heavy dependence on food imports; (ii) exposure to climate change and extreme weather events; (iii) patchy biosecurity, animal and plant health services; and (iv) fragmented value chains and food system governance.
- Significant loss of employment and incomes, disrupted value chains due to both local and international restrictions on logistics, and resultant increases in food prices and growing food and employment insecurity.
- Food producers are concerned about the limited availability and/or access to agricultural supplies. These input constraints are likely to result in further reductions in food production, extending food insecurity in the region.
- Declining food demand and access, and increased gender-based discrimination, were also identified as concerning impacts.
- The assessment concludes with suggested opportunities for research and development investments to enhance the resilience of food systems.

Regional Economic Impacts

Whilst the pandemic continues, the Pacific Rim Countries staged a strong economic recovery during 2021 and the first half of 2022. However, the resumption of lockdown measures in China, and tightening monetary policy in USA suggest that economic conditions in the two major economies will soften through the remainder of 2022 and into 2023.

Specific economic trends affecting the PICs include the boom in commodity prices, soaring transport costs and the recovery of tourism. The commodity price boom is generally positive for the main commodity exporters, PNG, Solomon Islands, and to a lesser extent Vanuatu. Whilst this will boost GDP and national trade balances, the flow-on benefits to most rural households will be offset by much higher prices for imported foods, recognising that even in rural areas most Pacific Islanders rely on purchased, often imported, food for at least half of their requirements. The tourism countries, Fiji and Vanuatu, will benefit from the recovery of this industry but will also feel the impact of rising food import costs. Countries such as Samoa and Tonga with limited tourism or commodity export industries will be worst affected by rising food prices, although with some benefits arising from the recovery of seasonal employment programs.

The pandemic has also triggered changes in the way ODA resources are being delivered. This was reported in a 2021 webinar ("Pacific Aid in the time of COVID") hosted by the Lowy Institute in which SPC, the World Bank and DFAT reported on how they were responding to the crisis. Whilst all three confirmed their commitment to

continue support for established long-term programs, they announced a number of short-term adjustments including:

- Fast-tracking projects already in the pipeline to stimulate local economies, including labour-intensive schemes to create jobs.
- "Re-purposing" ongoing projects, especially slow-moving ones, to make them more relevant to current needs, and re-scheduling workplans to accommodate COVID-19 restrictions.
- Support to the tourism industry to prepare for its re-opening, and retraining for unemployed tourism workers.
- Re-deploying resources including from project to budget support in some cases.
- Strengthening social protection systems.
- Renewed focus on health and education.

Response and Recovery Measures

Since the onset of the pandemic there have been numerous studies and reports on the impacts, response and recovery measures. During 2020 and 2021 most of the focus has been on immediate responses to mitigate adverse impacts and limit long-term damage with much of this oriented towards rural livelihoods, disadvantaged groups and food and nutrition security. More recently, attention has turned to recovery measures to address long-term impacts and identify opportunities to "build back better". The recent IFAD/FAO/UNICEF/WFP report[31] focuses on Pacific food systems and identifies key impacts responses and opportunities as follows:

Key Impacts

General

- Reduced incomes resulting from the loss of tourism-related activities and initial slowing of remittances.
- A deterioration in government finances and availability of public sector funding.
- Disruption of local and global supply chains and higher volatility in food prices.
- Decline in exports because of less frequent air freight and increased freight costs.
- Disruptions to local food distribution due to market and transport restrictions and limitations of storage, processing and transport infrastructure.
- Workers and owners of microenterprises affected by job loss transiting to the informal sector for business and employment opportunities.

Impacts on Food Production

- Resurging importance of local agriculture and fishing in response to reduced access and affordability of imported foods.
- Increased agricultural labour supply due to loss of local and overseas employment opportunities.
- Shortages of agricultural inputs, especially planting materials.
- Increasing pressure on natural resources (e.g. fisheries) due to people returning to their villages.

Storage, Handling and Processing

- Innovative approaches to respond to market restrictions such as electronic marketing, proliferation of informal roadside stalls.
- Complete loss of food sales to the tourism sector.

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[31] *IFAD, FAO, UNICEF and WFP (January 2022) Reinforcing Pacific Food Systems for COVID-19 Recovery: Key Impacts, Responses and Opportunities to Build Back Better.*

- Disruption to food imports due to port closures, congestion, lengthy quarantine procedures and logistical disruptions, but imported food availability has generally held up.
- Limited and costly airfreight has affected horticultural exports, especially for Fiji.
- Shipping delays and restrictions have affected the tuna industry.

Food Prices, Consumption and Nutrition

- Initially impacts were mixed but prices have generally increased substantially from mid-2021 onwards.
- Reduced incomes and higher prices have restricted food choices.
- Food insecurity and poor nutrition vulnerabilities intensified among urban and peri-urban poor, informal workers and women.

Country-Level Responses

- Stimulus packages sourced from government budgets, government bonds, concessional loans and direct budget support from development partners.
- Measures to boost local food production and availability and increase access to adequate, nutritious food have been prevalent throughout the crisis.
- Measures to ensure supply and marketing of fresh food to mitigate disruptions caused by lockdowns.
- Measures to improve post-harvest storage and handling, and strengthen import substitution.
- Measures to reduce or defer import tariffs, cancel or defer taxes and loan repayments and improve access to finance.

Opportunities to Strengthen and Realign Domestic Food Systems

- The pandemic has reinforced the need to innovate and adapt domestic and regional agri-food systems as a core recovery strategy.
- Boost local food production and consumption to ensure food and nutrition security:
    - Ensure access to and availability of safe, affordable and nutritious foods and promote consumption of local foods.
    - Prevent all forms of malnutrition.
- Target and empower vulnerable populations and ensure no one is left behind:
    - Design and strengthen nutrition-sensitive social protection to reach the most vulnerable.
    - Empower women and girls by creating opportunities for economic participation and tackling harmful social norms.
- Invest in digital, agricultural and climate-adaptation innovations:
    - Invest in digital innovation, smart farming and enhanced digital literacy and services for farmers.
    - Support the emergence and development of innovative, promising value chains.
    - Strengthen and support sustainable, climate-smart farming and fishing.
- Improve food system resilience to shocks and crises:
    - Make small-scale agriculture and fisheries more productive and remunerative.
    - Bolster intraregional agricultural investment and trade to strengthen the regional economy.
    - Ensure that regional networks and hubs are effective and fit for purpose.
    - Build resilience to shocks through increased investment to mitigate the impacts of climate change on vulnerable farmers and households.

- Track, measure and assess recovery needs and progress:
    - Strengthen data-driven and evidence-based policy and program decision-making to improve food security and nutrition outcomes.
    - Continue to monitor the situation and impacts closely.

PHAMA Plus Response: General Approach

The response of PHAMA Plus is aligned with DFAT's Partnerships for Recovery[32] approach to the COVID crisis in the Indo-Pacific region. The approach incorporates three core action areas: (i) health security; (ii) stability; and (iii) economic recovery. PHAMA Plus's mandate and resources are closely aligned with the economic recovery area (see Box 1 below) and will also contribute to social cohesion and stability in rural communities. The PHAMA Plus approach responds to renewed recognition by governments and donors of the importance of agriculture and food security for community resilience and stability, and as a driver of post-COVID economic recovery. PHAMA Plus provides an implementation mechanism for a broad range of economic recovery initiatives supported by governments, donors and the private sector.

Box 1: DFAT Partnerships for Recovery: Core Action Areas for Economic Recovery

- Promote economic response and recovery efforts, private sector resilience, open markets and supply chains, improved livelihoods and inclusive growth.
- Support partner governments to manage the economic slowdown and reduce the impact of the economic crisis on the most vulnerable.
- Provide advice on stimulus packages and trade-related policies to keep markets and businesses functioning, and help governments avoid debt distress.
- Support to partner governments on pathways to economic recovery, including revitalising export markets, accessing finance for trade and investment, and supporting human capital and job creation.
- Advice on public financial management to improve partner governments' abilities to respond effectively to a changed regional and global economy and manage future shocks.
- Advocacy and support for free and open trade to stimulate a shared economic recovery in the context of PACER Plus entry into force in December 2020.
- Helping the private sector to access capital, and re-establish markets and global value chains.
- Facilitating responsible business models, low carbon development, and value chain diversification to boost economic resilience and help protect against future economic shocks.
- Invest in gender equality and inclusion of people with disabilities to foster inclusive and equitable economic growth essential for strong communities, social cohesion and economic resilience.

Emergency response and social protection initiatives have been an important part of the DFAT response under the health security action area. These initiatives have been delivered through agencies and programs that focus on social welfare and disaster management. PHAMA Plus's support for economic recovery has focussed on damage limitation, recovery and re-building; as well as improving the resilience of production systems and supply chains to mitigate the impact of future crises or disasters. These responses are directed towards agricultural production for income generation and food/nutrition security; as well as continuing efforts to facilitate trade in food and agricultural commodities under PACER Plus through improved biosecurity and sanitary/phytosanitary services. These response measures are integrated within national and regional programs including those supported by DFAT and other development partners.

[32] *https://www.dfat.gov.au/publications/aid/partnerships-recovery-australias-covid-19-development-response*

Damage limitation includes activities such as establishment of temporary local marketplaces, keeping marketing pathways open, and storage facilities to hold produce in good condition until markets re-open. PHAMA Plus has adapted its operational modalities in response to travel restrictions and social distancing requirement in order to continue implementation of intervention plans across all participating countries. Recovery activities have included supply of planting materials, farmer training, and facilitating access to finance to enable production and marketing to resume. Re-building will involve full resumption of Intervention Plans based on the principles of "build back better" and adaptation to the "new normal", recognising that straightforward resumption of previous activities may not always be possible or appropriate. Across all phases, PHAMA Plus has followed the "do no harm" approach, avoiding short-term support measures that may impede longer-term sustainable development and resilience, for example through intervention in markets or creating dependence on handouts or subsidies.

PHAMA Plus responses also recognise that different stakeholder groups are affected in various ways and have very different needs. Small scale mainly subsistence farmers have not been greatly affected by disruptions to marketing systems, but suffer from reduced employment opportunities, and higher food prices. However, emerging semi-commercial and commercial farmers have felt the brunt of disruptions to marketing arrangements, as are many SME and larger scale value chain actors, including processors and exporters. As is usual in crises and natural disasters, poor women, children and people with disabilities are disproportionately affected and have fewer response options.

The magnitude and duration of the COVID-19 crisis is such that "business as usual" is not a realistic option for PHAMA Plus. Throughout the pandemic, the Program has its sights firmly on the overall goal and end of program outcomes, identifying tactical adjustments that are appropriate to achieve these targets, whilst avoiding (where possible) involvement in short-term emergency response and social protection initiatives that are beyond the Program's mandate. PHAMA Plus also advocates for maintaining clear distinction between emergency relief/humanitarian responses during the crisis; and the restoration of sustainable and profitable agricultural production and marketing systems in the post-crisis phase.

Looking forward to the next phase beginning in 1st July 2022some variations in approach merit consideration as outlined below:

- **Food and Nutrition Security:** The crisis has exposed weaknesses in the food systems of the PICs, which have especially impacted vulnerable and disadvantaged groups. Key issues include interruptions to the supply of imported food staples, meat, and dairy products; disruption of domestic marketing pathways for fresh food supplies; and vulnerability to exotic pests and diseases. This suggests that PHAMA Plus could be providing greater support to domestic food marketing including import substitution, promotion of healthy local foods, and ensuring supply continuity for fresh produce. Improved hygiene and food safety in domestic food marketing systems, including urban marketplaces could also be considered.

- **Access to Financial Services:** Whilst access to finance is a systemic problem in most PICs, the crisis has increased the need for financial services (mainly credit) among value chain actors, while financial institutions have become even more reticent about extending credit to producers and SME-scale businesses. This increases the risk of business failures and will slow the rate of recovery as the situation normalises. Several of the Intervention Plans include initiatives to improve access to financial services for stakeholders, and it is worth considering extending this across the portfolio during the next phase. This is best approached by facilitating access to existing and newly established financial services including loan guarantee schemes being planned by ADB, New Zealand MFAT and others as part of COVID-19 recovery. PHAMA Plus could also consider offering more generous cost-sharing arrangements with partners during the post-crisis recovery and re-building phases, in conjunction with facilitating access to business development services and partnerships with financial service providers.

- **Marketing Infrastructure:** Whilst commodity and food prices are currently high, the pandemic has exposed vulnerabilities to disruptions of domestic and international transportation. Slower movement of commodities along marketing pathways suggests a need for improved transport and storage infrastructure to prevent quality deterioration and weakening of prices. Domestic marketing infrastructure for fresh food can also be improved to avoid wastage, spoilage and improve food safety. Whilst PHAMA Plus does not have the resources to finance the necessary investments in marketing infrastructure, it could facilitate access to other infrastructure investment programs, such as those financed by the ADB, the World Bank and the AIFFP.

Annex 1: Data Sources

Sources	Website
ADB Basic Statistics	https://www.adb.org/sites/default/files/publication/499221/basic-statistics-2019.pdf
Australian Bureau of Meteorology	http://www.bom.gov.au/climate/influences/timeline/ https://www.pacificmet.net/products-and-services/climate-bulletin
Australian Net Migration by country of birth	http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3412.02016-17?OpenDocument
Australian Seasonal Worker Program	https://www.employment.gov.au/seasonal-worker-programme https://pacificlabourmobility.com.au/
Biosecurity narrative	http://www.oie.int/wahis_2/public/wahid.php/Countryinformation/countryhome
CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/
DFAT: Trade Agreements	https://dfat.gov.au/trade/agreements/
Drewy World Container Index	https://infogram.com/world-container-index-1h17493095xl4zj
Economist Intelligence Unit Quarterly Reports	https://www.eiu.com/home.aspx
ESCAP Asia-Pacific Trade and Investment Report	https://www.unescap.org/sites/default/files/publications/APTIR%202018_4Jan19_0.pdf
ESCAP/World Bank Cost of Trade Database	https://www.unescap.org/resources/escap-world-bank-trade-cost-database
Exchange rates	https://www1.oanda.com/currency/converter/
FAO Agrostat	http://www.fao.org/faostat/en/
IMF Database	https://data.imf.org/?sk=4C514D48-B6BA-49ED-8AB9-52B0C1A0179B
IMF Working Paper Climate and Oceans Support Program	Lee D, Zhang H and Nguyen C (2018) https://www.pacificmet.net/products-and-services/climate-bulletin https://reliefweb.int/
IMF: World Economic Outlook Database	https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/index.aspx
Index Mundi	https://www.indexmundi.com/commodities
ITC: International Trade Centre Trade Map	https://www.trademap.org/Index.aspx
Lowy Institute Pacific Aid Map	https://pacificaidmap.lowyinstitute.org/
New Zealand RSE Arrivals	https://www.immigration.govt.nz/documents/statistics/statistics-rse-arrivals.pdf
OECD: Development Assistance Committee	http://www.oecd.org/dac/
PACER Plus	https://www.dfat.gov.au/trade/agreements/
PTI: Pacific Islands Export Survey 2018	https://www.pacifictradeinvest.com/media/1296/full-report-pti-australia-pacific-islands-export-survey-2018_web2.pdf
PTI: Pacific Business Monitor Report	https://www.pacifictradeinvest.com/covid-19-response/pti-pacific-business-monitor
RBA: Commodity Price Indices	Index of Commodity Prices 2021 | RBA
SPC: National Minimum Development Indicators	http://www.spc.int/nmdi/agriculture_households
UNCTAD: World Investment Report, 2018	https://unctad.org/en/PublicationsLibrary/wir2018_en.pdf
UNDP Human Development Index	http://hdr.undp.org/en/content/human-development-index-hdi
UNDP Human Development Report Database	http://hdr.undp.org/en/data#
WHO COVID-19 information	https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

Sources	Website
World Bank: Country Statistics	http://wits.worldbank.org/countrystats.aspx?lang=en
World Bank: Doing Business	http://www.doingbusiness.org/en/data
World Bank: Remittances Database	http://www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data
World Bank: World Development Indicators	https://datacatalog.worldbank.org/dataset/world-development-indicators
WTO Database	https://data.wto.org/

Annex 2: Key Regional Trade Agreements and Organisations

Regional Trade Agreements and Strategies

Melanesian Spearhead Group Trade Agreement (MSG TA)	Free trade agreement between Fiji, PNG, Vanuatu and Solomon Islands (New Caledonia is an observer). Established in 1993. Due to the size of these economies the majority of intra-regional trade is under MSG TA rather than PICTA.
Pacific Agreement on Closer Economic Relations Plus Agreement (PACER Plus)	Regional Free Trade Agreement covering goods, services and investment. Negotiations concluded in 2017 with 11 signatories: Australia, NZ and nine PICs. The Agreement came into force in December 2020 after eight signatories ratified the agreement: NZ, Australia, Samoa, Kiribati, Tonga, Solomon Islands, Niue and Cook Islands.
Pacific Aid for Trade Stragey (PAFTS) 2020-2025	Strategy developed by the PIF in July 2018 which aims to indentify regional trade policy priorities and ensure they are properly resourced, member driven, tan theat key priorities are addressed and donor duplication is prevented. The strategy will also draw from, and contribute to, national-level trade and sustainable development strategies. The strategy focuses four thematic priority areas: the services sector; electronic commerce; comprehensive connectivity; and deepening Forum markets. These have the potential to make a major contribution to the performance of PICs in the ease of doing business.
Pacific Islands Trade Agreement (PICTA)	Establishes a free trade area (goods only) among the 14 Forum Island Countries. Came into force in 2003.
European Union Economic Partnership Agreement and Cotonou Partnership Agreement	Negotiations on economic partnership agreements between PICs and the EU commenced in 2018 in preparation for the expiry of the Cotonou Partnership Agreement in 2020. The Cotonou Partnership Agreement began in 2008 and outlinines relations between countries in Africa, the Caribbean and the Pacific (including all seven countries where PHAMA Plus works) and the EU. Mainly financed by the European Development Fund which has contributed significant funds both nationally and regionally.
South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA)	Nonreciprocal trade agreement under which Australia and New Zealand offer duty free or concessional access to most products originating in Forum Island Countries. SPARTECA came into effect in 1981

Regional Organisations

Pacific Islands Forum (PIF)	Headquarters: Secretariat Suva (Fiji)
Number of Member States: 18	www.forumsec.org
• Founded in 1971 as the region's overarching political and economic policy organisation. • The Forum's Vision is for a region of peace, harmony, security, social inclusion and prosperity, so that all Pacific people can lead free, healthy, and productive lives. • The Forum works to achieve this by fostering cooperation between governments, collaboration with international agencies, and by representing the interests of its members. • PIFS acts as Secretariat and permanent chair of the Council of Regional Organisations in the Pacific.	

Pacific Community (SPC)	Headquarters: Noumea, (New Caledonia), Secretariat in Suva (Fiji)
Number of Member States: 27	www.spc.int
• SPC is a regional technical and development organisation. • SPC implements programs to develop the technical, professional, scientific, research, planning and management capability of Pacific island people. • The agency has three main divisions: land, marine and social.	

Pacific Islands Forum Fisheries Agency (FFA)	Headquarters: Honiara (Solomon Islands)
Number of Member States: 17	www.ffa.int/
• FFA was established to help countries sustainably manage their fishery resources that fall within their 200-mile Exclusive Economic Zones. • FFA is an advisory body providing expertise, technical assistance and other support to its members who make sovereign decisions about their tuna resources and participate in regional decision making on tuna management through agencies such as the Western and Central Pacific Fisheries Commission. • Since 1979, FFA has facilitated regional cooperation so that all Pacific countries benefit from the sustainable use of tuna – worth over USD 3 billion a year and important for many Pacific people's livelihoods.	

The South Pacific Regional Environment Programme (SPREP)	Headquarters: Apia (Samoa)
Number of Member States: 21	www.sprep.org
• SPREP's charter is to strengthen the capacity of Pacific Island members to plan and manage their own national environmental programs and to enhance regional cooperation to deal more effectively with issues that are transboundary in nature or which require interventions at the global level. • The work of the organisation covers nature conservation, pollution prevention, climate change and economic development.	

South Pacific Tourism Organisation (SPTO)	Headquarters: Suva (Fiji)
Number of Member States: 14	www.soutpacificislands.travel
• SPTO is mandated to promote the Pacific Islands as a tourist destination. • Established in 1983 as the Tourism Council of the South Pacific, SPTO is the mandated organisation representing Tourism in the region. • SPTO's objectives, through tourism are: strengthening regional cooperation; contributing to sustainable development; promoting global awareness of the region; enhancing the resources of the region; and promoting the cultural diversity of the region.	

University of the South Pacific (USP)	Headquarters: Suva (Fiji)
Number of Member States: 12	www.usp.ac.fj
• USP is the leading provider of tertiary education in the Pacific region and an international centre of excellence for teaching, research, consulting and training on all aspects of pacific culture, environment and human resource development needs. • Three faculties: Faculty of Arts, Law and Education; the Faculty of Business and Economics; and the Faculty of Science, Technology and Environment. • Each faculty comprises of a number of schools which offer a wide range of academic programs and courses at the undergraduate and postgraduate levels.	

Oceania Customs Organisation (OCO)	Headquarters: Noumea (New Caledonia)
Number of Member States: 12	www.ocosec.org

- Established in 1999
- Collaborates with regional and global partners to deliver high quality services and sustainable solutions to members.
- Helps members to align with customers international standards and best practice leading to greater economic prosperity and increased border security.
- Work is focused in five priority areas: (i) customs leadership; (ii) law enforcement and border security; (iii) trade management and facilitation; (iv) revenue mobilisation; and (v) institutional strengthening and small member administrations.
- Annual meetings provide a forum for harmonised and simplified customs procedures and improved communications between members.

Membership of Council of Regional Organisations of the Pacific (CROP) Agencies

Organisation →	SPC	SPREP	SPTO	PIF	FFA	USP	OCO	No of Orgs
PHAMA Plus Countries								
Fiji	✓	✓	✓	✓	✓	✓	✓	7
PNG	✓	✓	✓	✓	✓		✓	6
Samoa	✓	✓	✓	✓	✓	✓	✓	7
Solomon Islands	✓	✓	✓	✓	✓	✓	✓	7
Tonga	✓	✓	✓	✓	✓	✓	✓	7
Vanuatu	✓	✓	✓	✓	✓	✓	✓	7
Other PICs								
American Samoa	✓	✓	✓				✓	4
Cook Islands	✓	✓	✓	✓	✓	✓	✓	7
FSM	✓	✓	✓	✓	✓		✓	6
French Polynesia	✓	✓	✓	✓			✓	5
Guam	✓	✓					✓	3
Kiribati	✓	✓	✓	✓	✓	✓	✓	7
RMI	✓	✓	✓	✓	✓	✓	✓	7
Nauru	✓	✓	✓	✓	✓	✓	✓	7
New Caledonia	✓	✓	✓	✓			✓	5
Niue	✓	✓	✓	✓	✓	✓	✓	7
Northern Marianas	✓	✓					✓	3
Palau	✓	✓		✓	✓		✓	5
Pitcairn Islands	✓							1
Tokelau	✓	✓			✓	✓		4
Tuvalu	✓	✓	✓	✓	✓	✓	✓	7
Wallis and Futuna	✓	✓	✓				✓	4
Total PIC Members	**22**	**21**	**17**	**16**	**15**	**12**	**20**	
Non-PIC Members								
Australia	✓	✓		✓	✓		✓	5
China			✓					1
France	✓	✓						2
New Zealand	✓	✓		✓	✓		✓	5
Timor Leste			✓					1
UK		✓						1
USA	✓	✓						2

Total Non-PIC Members	**4**	**5**	**2**	**2**	**2**	**-**	**2**	
Total Members	**26**	**26**	**19**	**18**	**17**	**12**	**22**	

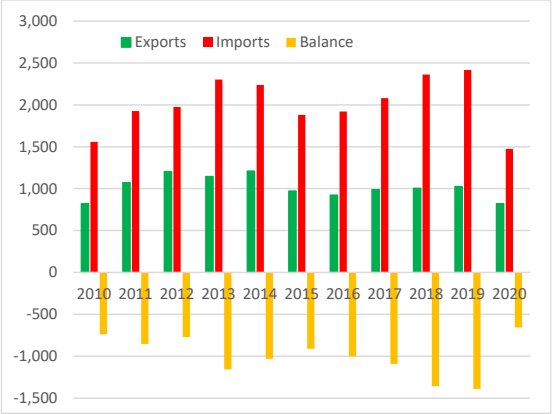
FFA	Forum Fisheries Agency
SPC	Secretariat of the Pacific Community
SPREP	South Pacific Regional Environmental Programme
SPTO	South Pacific Tourism Organisation
USP	University of the South Pacific
PIF	Pacific Islands Forum
OCO	Oceania Customs Organisation

A number of other CROP agencies exist which are not as relevant to PHAMA Plus including: Fiji School of Medicine, Pacific Aviation Safety Office, Pacific Islands Development Programme, and Pacific Power Association.

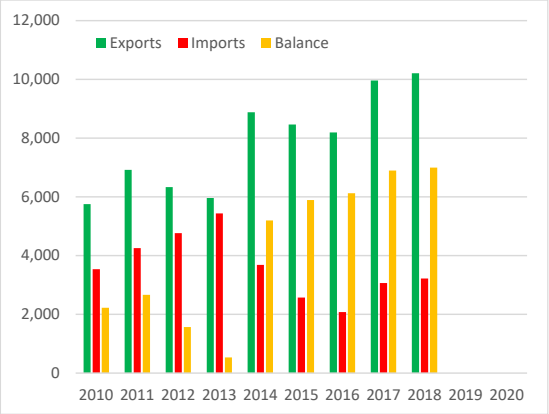
Annex 3: Value of Merchandise Imports and Exports

Figure 29. Balance of Merchandise Trade (USD million), 2010-220

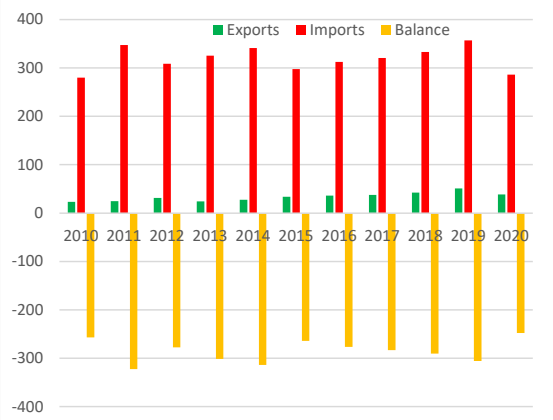
Fiji



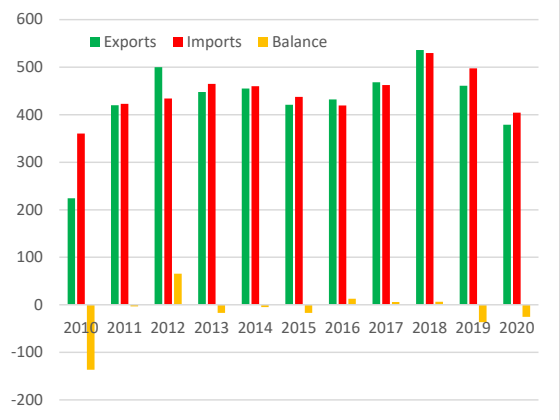
Papua New Guinea



Samoa

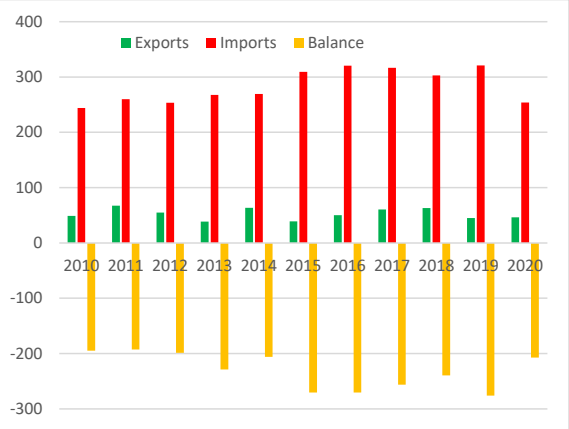


Solomon Islands



Tonga

Vanuatu

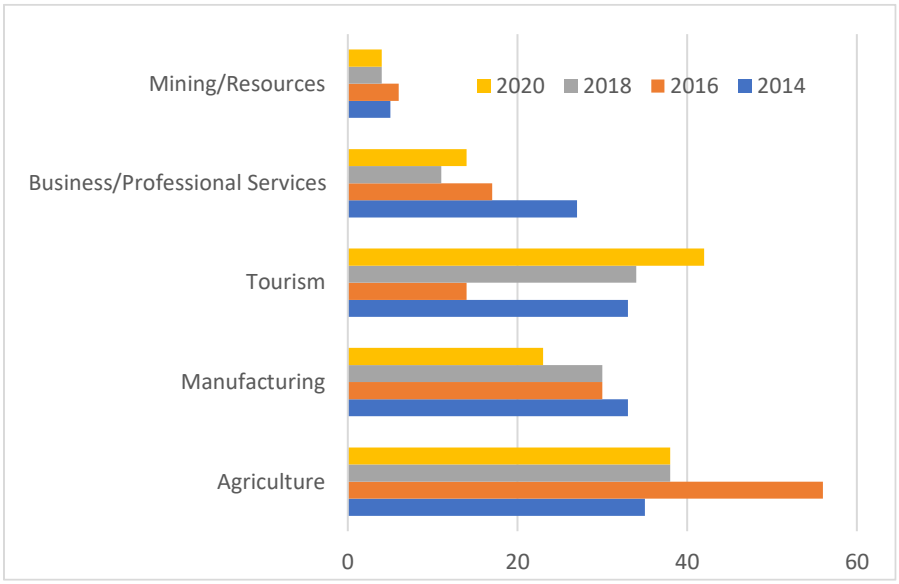


Source: World Bank, World Development Indicators

Annex 4: Pacific Islands Export Survey

As sourced from: 2020-highlights-pti-australia-pacific-islands-export-survey.pdf (pacifictradeinvest.com)

Figure 30. Respondents to PTI Exporter Survey by Sector (percent)



The number of PIC agricultural exporters exceeds those in any other sector.

Most PIC exporters are small and medium enterprise scale with less than 20 employees.

Figure 31. Respondents to PTI Exporter Survey by Number of Employees

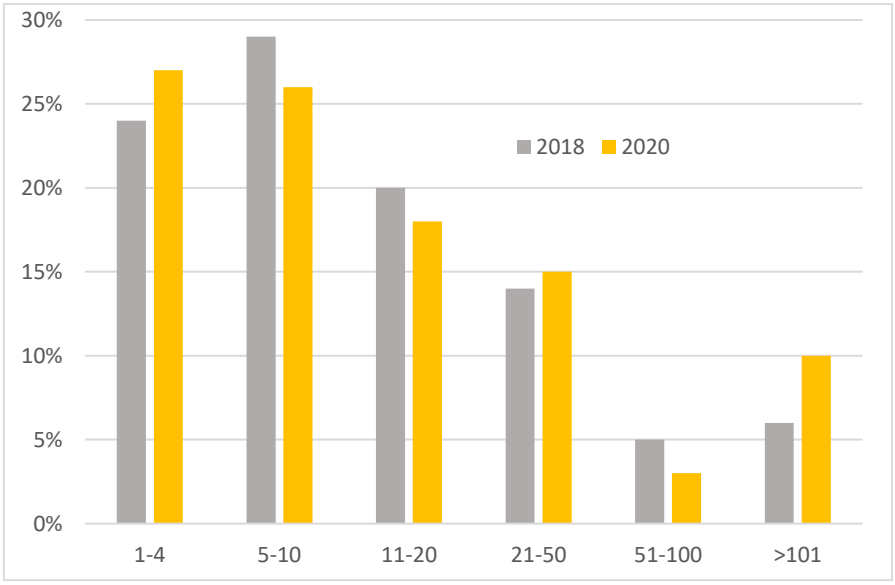
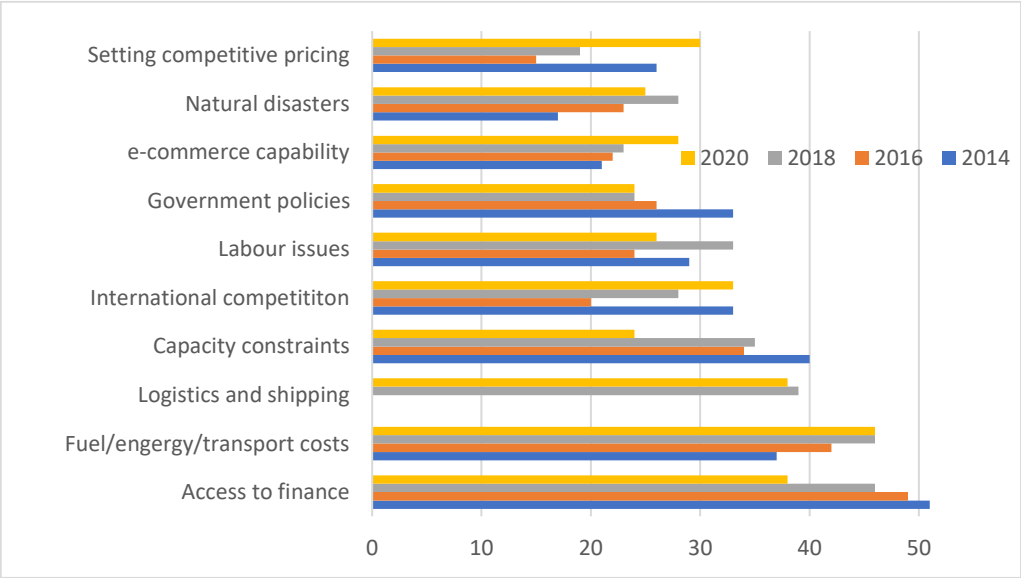
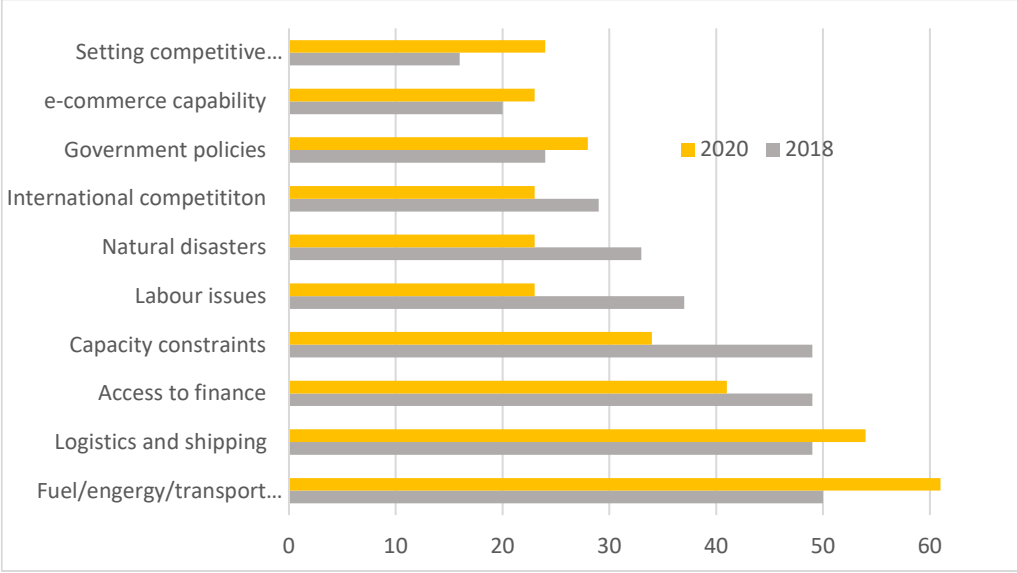


Figure 32. Top ten Barriers to Exporting (percent of exporters)



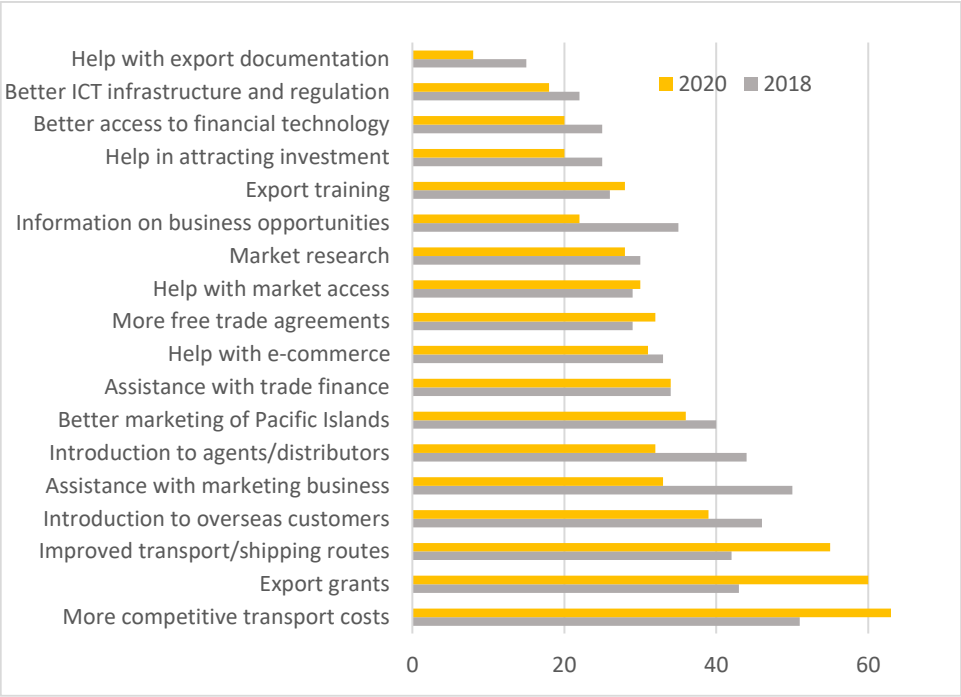
The leading barriers to exporting include access to finance, transport costs, logistics and capacity constraints.

Figure 33. Top ten Barriers to Exporting - Agricultural Exporters (percent of exporters)



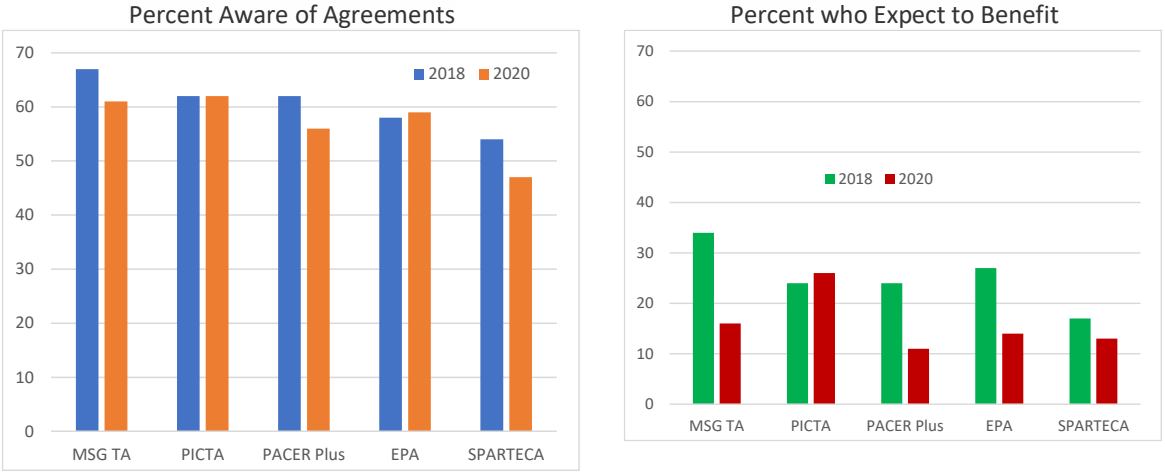
Among agricultural exporters the principal barriers are much the same as for exporters in general.

Figure 34. Assistance Needed to Increase Exports - Agricultural Exporters (percent of exporters)



The nature of assistance sought by exporters provides useful guidance for PHAMA Plus.

Figure 35. Trade/Partnership Agreements: Agricultural Exporters



50-70% of PIC exporters are aware of the major trade agreements but only 15-25% expect them to be beneficial.

MSG TA	1994 Melanesian Spearhead Group Trade Agreement
PACER plus	2017 Pacific Agreement on Closer Economic Relations
PICTA	Pacific Islands Trade Agreement
EPA	European Union Economic Partnership Agreement
SPARTECA	1981 South Pacific Regional Trade and Economic Cooperation Agreement

Annex 5: Human Development Index (HDI)

Human Development Index 2010-2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Change % 2010-19	Rank 2019	HD Status
FIJ	0.711	0.717	0.719	0.727	0.730	0.718	0.718	0.721	0.724	0.743	4.5	93	High
TON	0.712	0.716	0.717	0.716	0.717	0.714	0.715	0.717	0.717	0.725	1.8	104	High
SAM	0.693	0.697	0.697	0.700	0.703	0.699	0.704	0.706	0.707	0.715	3.2	111	High
VAN	0.591	0.592	0.592	0.597	0.598	0.592	0.592	0.595	0.597	0.609	3.0	140	Medium
SOL	0.507	0.514	0.529	0.539	0.539	0.555	0.553	0.555	0.557	0.567	11.8	151	Medium
PNG	0.520	0.529	0.530	0.534	0.536	0.539	0.541	0.543	0.543	0.555	6.7	155	Medium

- Fiji, Tonga and Samoa are classified as high human development countries.
- Vanuatu Solomon Islands and PNG are classified as medium human development countries.
- All countries have improved their HDI scores over the last decade, most notably Solomon Islands and PNG

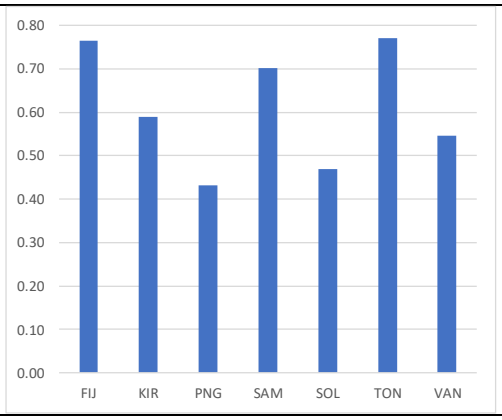
Life Expectancy and Birth (years) 2010-2020

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change 2010-19
FIJ	66.7	66.8	66.9	67.0	67.0	67.1	67.2	67.3	67.3	67.4	67.6	0.9
PNG	62.0	62.3	62.6	62.9	63.2	63.5	63.7	64.0	64.3	64.5	64.7	2.7
SAM	71.7	71.9	72.1	72.4	72.5	72.7	72.9	73.0	73.2	73.3	73.5	1.8
SOL	70.7	71.0	71.3	71.6	71.9	72.2	72.4	72.6	72.8	73.0	73.1	2.5
TON	70.1	70.1	70.2	70.3	70.4	70.5	70.6	70.7	70.8	70.9	71.0	1.0
VAN	69.1	69.3	69.4	69.6	69.7	69.9	70.0	70.2	70.3	70.5	70.6	1.5

- Life expectancy in PNG is well below the other Pacific countries.
- All the countries have life expectancies at least ten years less than the most developed countries.
- In all Pacific countries, life expectancy has increased over the last decade with PNG and Solomon Islands achieving the largest gains.

Education Index, 2018
(based on average years of schooling)

- Fiji, Samoa and Tonga rank above the other countries in education.



Poverty Rates (Percent)

- Data on poverty rates are sparse and incomplete.
- Extreme poverty (income < $1.90/day) is rare except in PNG and Solomon Islands.
- Somewhat higher poverty rates are estimated relative to national poverty lines.

	FIJ	PNG	SAM	SOL	TON	VAN
< USD 1.90/day (2011 PPP)	0.2	14.8	0.1	6.8	0.2	3.2
Year	2013	2009	2013	2013	2015	2010
National Poverty Line	9.9	15.7	No data	3.2	No data	No data
Year	2008	2009		2013		