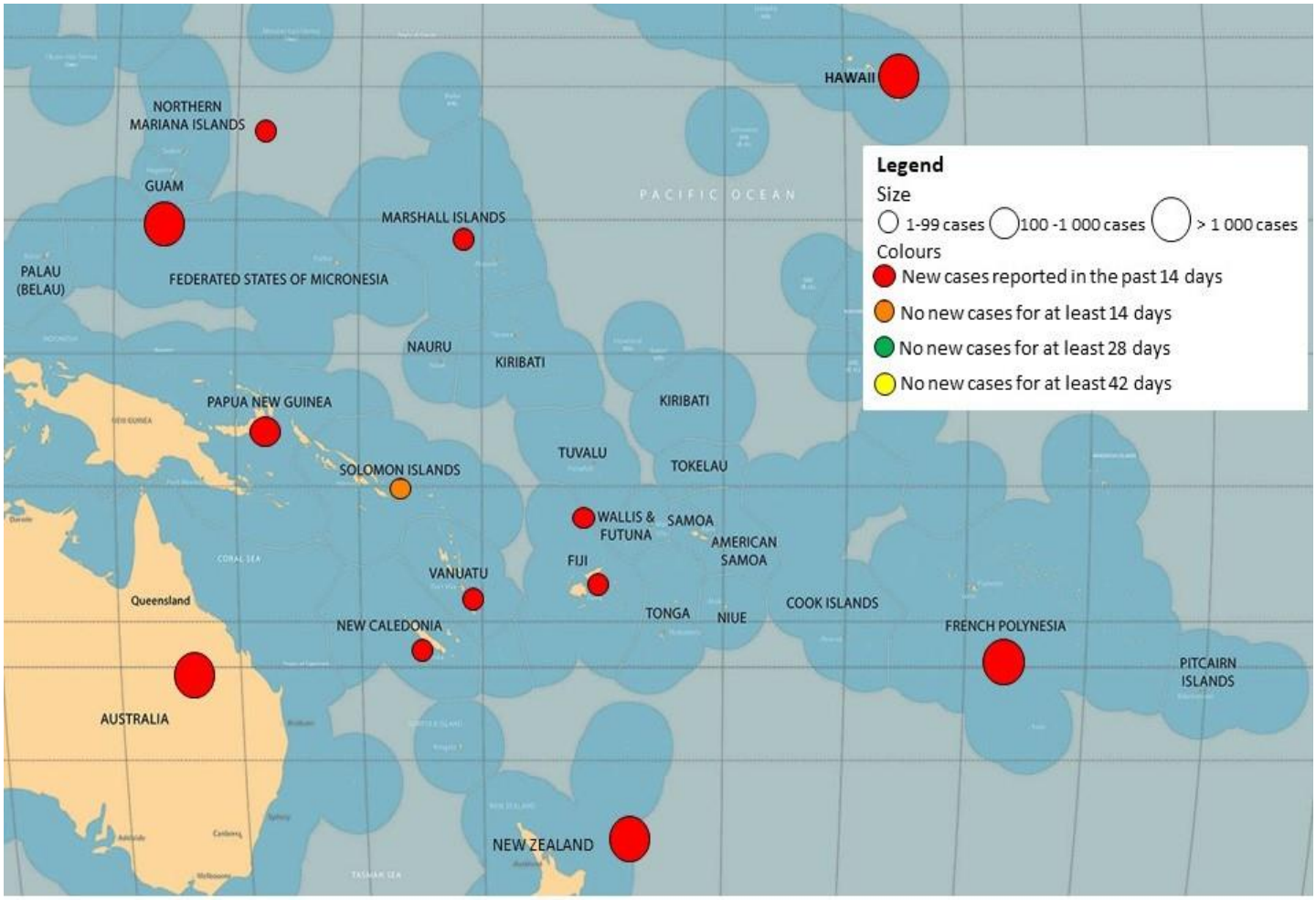

Synthesis of COVID-19 impacts on the Pacific

Final report

30 April 2021

ALLEN+CLARKE

ACKNOWLEDGEMENTS

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The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the Pacific Community, the project Reference Group members, or SPC partner agencies.

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Proof-read:	Shaun Foley
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CONTENTS

ABBREVIATIONS

ADB	Asian Development Bank
CNMI	Commonwealth of the Northern Mariana Islands
CROP	Council of Regional Organisations in the Pacific
FSM	Federated States of Micronesia
MSME	Micro, small, and medium sized enterprises
NCDs	Non-communicable diseases
PICTs	Pacific Island countries and territories
PIFS	Pacific Islands Forum Secretariat
PNG	Papua New Guinea
SDG	Sustainable Development Goal
RMI	Republic of Marshall Islands
SEIA	Socio-economic impact assessment
SPC	Pacific Community
TC	Tropical cyclone
UN	United Nations

EXECUTIVE SUMMARY

The Coronavirus Disease 2019 (COVID-19) outbreak was declared a pandemic by the World Health Organization on 11 March 2020, and in 2021 continues to present a significant challenge for the Pacific region. Containment measures implemented by Pacific Islands Forum leaders and with the cooperation of member countries and regional, international, and development partners meant that the spread of COVID-19 was limited during 2020.

This report describes the impacts of COVID-19 in Pacific Island countries and territories (PICTs) during 2020. It aims to inform the development of Pacific Community priorities in response to COVID-19 by synthesising existing research to answer the following research questions:

1. What were the impacts of COVID-19 on economies and livelihoods, food systems, health systems, equity, education and social development, cultures and human rights, and natural resources and biodiversity in the Pacific region?
2. What were the impacts of COVID-19 on economies and livelihoods, food systems, health systems, equity, education and social development, cultures and human rights, and natural resources and biodiversity in Pacific Island Countries and Territories?
3. How is COVID-19 interacting with other shocks in the region, including climate change and natural disasters, such as tropical cyclone Harold?
4. What do we know about the impact of COVID-19 on specific groups, such as women, rural or remote communities, youth, persons with disability and others?
5. What are some key knowledge gaps for further investigation?

The analytical approach synthesised a range of types of evidence from 16 PICTs in a way that prioritised Pacific peoples' experiences of COVID-19. It also compared these experiences with the national and regional-level context, and described the experiences, where possible, of women, people living with a disability, and those living in rural or remote communities. As far as the evidence allowed, this approach described common experiences in PICTs. Seventy-one sources of evidence were used where they met these selection criteria: were published in 2020 (up to 31 December 2020), included empirical evidence of impacts of COVID-19 in any PICT or across the region, and were assessed to be of good quality.[1]

The overall focus was on describing peoples' experiences within the context of national and regional-level trends, events, and impacts, and not on reporting national level statistics about the impact on economies and economic responses.

Key findings

- Traditional governance structures such as village leaders, committees, and councils played a critical role in local leadership, implementing government measures, managing impacts of COVID-19, and managing local resources.
- The evidence consistently shows that people experienced significant economic impacts as a result of COVID-19. The national-level evidence for disrupted trade, the collapse of

[1] Quality was assessed during Phase 1 using dimensions of authority, accuracy, and significance. See the Phase 1 Situation Report for more detail.

tourism, job losses, and reduced economic activity was reported across household types, sectors, and geographies, and was reflected in peoples' own reports of their experiences.

- The majority of households across the Pacific have been affected by the economic impacts of COVID-19. Household strategies employed in response to this stress included reducing consumption (both non-food and food spending), spending from savings, reducing the number of children going to school, finding ways to earn extra money, taking on extra debt, selling harvests in advance, and receiving assistance from friends or family.
- There were disruptions to the food supply as a result of travel and transport restrictions. Family gardens became an important food source in many communities, with many planting traditional crops such as cassava, potato, banana, taro; although those in urban areas and some communities had less land or unsuitable land for gardening. The increase in gardening and agricultural activity was supported by local, provincial and national leadership through provision of seeds, seedlings, and equipment. Villages with fishing resources experienced increased fishing, with fish caught being used for food or sold.
- Households experienced loss of income and were unable to sell and trade produce. Many were worried about running out of food, and some households reported using strategies to make food last such as eating less, eating lower quality foods, skipping meals, and bartering different types of food.
- The evidence suggested that rural communities and others with access to land and sea resources (for example, those who returned to their villages after losing jobs) may have managed to cope with the economic shocks in the early stages of the pandemic.
- Schools closed and students shifted to learning from home. This was difficult for many as they faced practical barriers such as inability to receive school resources or work online, and many students lost interest. The evidence indicates that girls were disadvantaged by the school closures because they were under pressure to undertake domestic duties and childcare instead of schoolwork.
- During the COVID-19 restrictions and social distancing requirements, all PICTs experienced disruption to social and cultural life. However, cultural practices and values and community social institutions, including caring for others in the community, provided support and resilience. This was seen in pooling family or community resources, the production and distribution of food, and in other activities that provide a livelihood.
- Although women are at greater risk of experiencing adverse impacts of COVID-19 because, at a population level, women have more vulnerable employment, fewer resources, are expected to undertake more unpaid care work, and face barriers to accessing information, services and support, there was a lack of empirical evidence describing gendered impacts of COVID-19.
- The long-term impacts of COVID-19 may influence PICTs' ability to progress development outcomes and achieve all the Sustainable Development Goals (SDGs).

There were a number of knowledge gaps identified:

- There was no published empirical evidence for five countries and territories: America Samoa, Guam, Northern Mariana Islands, Pitcairn Islands, and Wallis and Futuna. There was a lack of evidence identified for the French overseas collectives of French Polynesia and New Caledonia. There is also a lack of country- or territory-specific evidence for those

with smaller populations – Tokelau, Nauru, Palau, Marshall Islands, Kiribati and Federated States of Micronesia (FSM). Although there were some common experiences of COVID-19 across the Pacific region, there were other impacts that differed by country and territory, as a result of country and population characteristics and geographic location.

- There are significant knowledge gaps about the impacts of COVID-19 on vulnerable groups and how they have experienced COVID-19 differently to other groups. There was a lack of qualitative or quantitative evidence particularly for people living with a disability, older people, and for key focus areas where women might be expected to be more greatly affected.
- Heath systems, as a prominent part of all PICT's COVID-19 preparation, prevention, and response activities, have been significantly involved in national and regional responses. However, there are gaps in knowledge about the impacts of significantly increased resource requirements, or any empirical evidence of the effects of COVID-19 on health systems management and service delivery, and of the implications of deferred healthcare to the health system and to individuals in terms of disease progression and complications.
- The included items of evidence lacked quantitative data that would help build a more complete understanding of the focus area or topic, including disaggregation by age and sex, geographical location, and by vulnerable groups.

1. INTRODUCTION

The Coronavirus Disease 2019 (COVID-19) outbreak was declared a pandemic by the World Health Organization on 11 March 2020 and in 2021 continues to present a significant challenge for the Pacific region. Currently 11 PICTs (Commonwealth of the Northern Marianas (CNMI), Fiji, French Polynesia, Guam, New Caledonia, Papua New Guinea (PNG), Republic of the Marshall Islands (RMI), Samoa, Solomon Islands, Vanuatu and Wallis and Futuna) have reported both cases and deaths.

Containment measures implemented by PICTs meant that the spread of COVID-19 was limited in the early stages of 2020. However, the continued threat of COVID-19 and ongoing containment measures have resulted in widespread socio-economic impacts and significant challenges as PICTs look towards an inclusive and sustainable recovery. While the Pacific is familiar with natural and humanitarian disasters and shocks, the effect of COVID-19 has exacerbated existing vulnerabilities.

In April 2020, Pacific Islands Forum leaders invoked the *Biketawa Declaration* and established the Pacific Humanitarian Pathway on COVID-19 to collectively respond to COVID-19, provide regional leadership and ensure the cooperation of member countries and regional, international and development partners in preparing for and responding to COVID-19.[2] The Pacific Islands Forum Secretariat (PIFS), the Pacific Community (SPC) and partner and donor agencies have worked throughout 2020 and 2021 to fund and support medical and humanitarian responses, infection prevention and control, preparedness for the COVID-19 vaccines, mitigation of the socio-economic impacts of COVID-19, and to plan for the future.

The Pacific Community, recognising the wide range of impacts of COVID-19 and the need to focus on planning and recovery, has developed a Pacific Community Transition Plan 2021 – *Foundations for a resilient future: Response to recovery*.[2] SPC engaged *Allen + Clarke* to undertake a synthesis of evidence on the impact of COVID-19 on the Pacific region during 2020 to inform SPC's Strategic Plan 2021+ and to guide its priorities in response to COVID-19.

This report describes the impacts of COVID-19 across the Pacific region and answers the following research questions:

1. What were the impacts of COVID-19 on economies and livelihoods, food systems, health systems, equity, education and social development, cultures and human rights, and natural resources and biodiversity in the Pacific region?
2. What were the impacts of COVID-19 on economies and livelihoods, food systems, health systems, equity, education and social development, cultures and human rights, and natural resources and biodiversity in Pacific Island Countries and Territories?
3. How is COVID-19 interacting with other shocks in the region, including climate change and natural disasters, such as tropical cyclone Harold?
4. What do we know about the impact of COVID-19 on specific groups, such as women, rural or remote communities, youth, persons with disability and others?
5. What are some key knowledge gaps for further investigation?

[2] https://www.forumsec.org/covid-19-updates-from-the-secretariat/

There were two phases to the synthesis. Phase 1 included identifying sources of evidence, then scanning and assessing these for quality and completeness. A Phase 1 Situation Report detailing the findings of this phase has been submitted separately. Phase 2 included synthesising and interpreting the empirical evidence of impacts of COVID-19 on PICTs, in order to answer the research questions. This report is the Phase 2 analytical report describing the impacts of COVID-19 in PICTs.

1.1. Country coverage

The Pacific Community is an intergovernmental organisation that works in close partnership with its' member countries and territories. This synthesis was focused on describing impacts of COVID-19 across the Pacific region in member countries and territories, excluding Australia, France, New Zealand and the United States of America.

There was no published empirical evidence for five countries and territories: America Samoa, Guam, CNMI, Pitcairn Islands, and Wallis and Futuna.

Evidence for French Polynesia, New Caledonia, Nauru, Palau, RMI, and Niue, was mainly limited to economic or business monitors, or papers discussing regional effects rather than country-specific evidence.

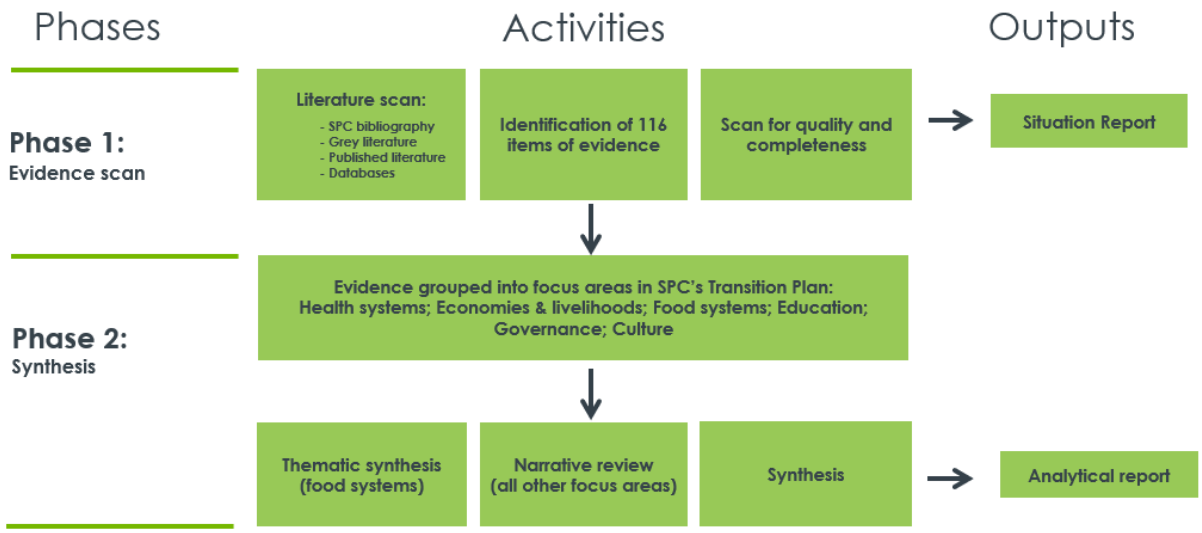
Much of the evidence on country-specific impacts was for Fiji, the Solomon Islands, Papua New Guinea and Vanuatu.

Evidence for other countries and territories including Tuvalu, the Cook Islands, Tonga, Samoa, FSM, and Kiribati appear in a range of sources, including some discussing regional effects and some discussing specific impacts.

2. METHODS

2.1. Summary of methods

Figure 1: Key activities undertaken in Phase 1 and Phase 2 of this project



2.2. Evidence sources

Sources of evidence used in this report were obtained during Phase 1 of the project: a literature scan and assessment for quality and completeness. This phase identified evidence for inclusion through an SPC generated bibliographic list, a grey literature search of SPC partner agencies' websites, reference lists of other included documents, a published literature search, a targeted search for databases and datasets, and from ongoing SPC and project Reference Group feedback and provision of items. All items identified from these sources were included or excluded using criteria. We had a bias towards inclusion rather than exclusion of items, given the broad range of item-types that had been published at speed in response to the pandemic during 2020.

Of the 116 items identified during Phase 1, 71 items were identified for inclusion in Phase 2 - the synthesis. Items in Phase 2 were included where they:

- were published in 2020 (up to 31 December 2020),
- included empirical evidence of impacts of COVID-19 in any PICT or across the region,
- were assessed to be of good quality.[3]

See Table 1 below for information on the types of evidence included in the synthesis.

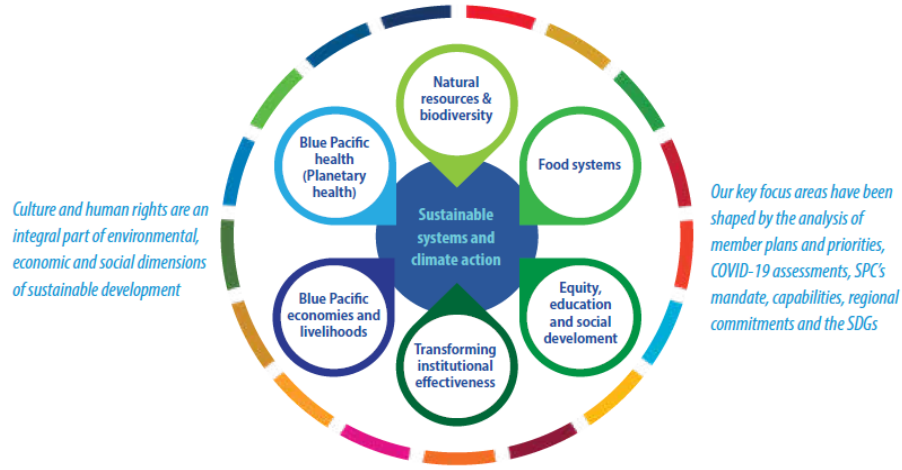
Excluded evidence types were those with projected or estimated impacts, evidence of impacts that had been subsequently updated, and evidence of regional or country-level economic impacts where high-quality, reputable publications already exist and are regularly updated. Media items

[3] Quality was assessed during Phase 1 using dimensions of authority, accuracy, and significance. See the Phase 1 Situation Report for more detail.

from news media or organisation websites were also excluded. More detail on Phase 1 is provided in the Phase 1 Situation Report.

In consultation with SPC and the project Reference Group at the end of Phase 1, the research questions were re-phrased to match the key focus areas in SPC's Transition Plan 2021+ so that the analysis would be framed in a way more easily used by SPC.

Figure 2: SPC's Transition Plan key focus areas[4]



2.3. Analysis approach

Similarly, at the end of Phase 1 the analytical approach was re-framed in consultation with SPC and the project Reference Group in response to the types of evidence available for analysis. There were fewer pieces of primary qualitative research than anticipated, and more desktop review-type reports that included many pieces of evidence from multiple sources. In response, the synthesis aimed to:

- prioritise Pacific peoples' experiences of COVID-19,
- identify experiences of people including women, rural or remote communities, youth, and people living with a disability,
- compare peoples' experiences with the national or regional-level context, and
- identify common experiences in the Pacific, as far as the evidence allowed; that is, experiences reported across more than one source of evidence and that could be assumed to approximately represent events and impacts in other PICTs where the context is similar.

The analysis did not aim to report separately on each PICT.

The focus on describing peoples' experiences within the context of national and regional-level events and impacts meant that we excluded national level statistics about the economy and economic responses.

The analysis was framed around the relevant key focus areas in SPC's Transition Plan 2021+. These were health systems, economies and livelihoods, food systems, education, governance,

[4] Pacific Community (SPC). 2020. *Pacific Community Transition Plan 2021 | Foundations for a resilient future: Response to recovery.* Noumea, New Caledonia.

culture and human rights, and natural resources and biodiversity. Health sector evidence was analysed separately due to the prominence of this sector during the pandemic. The evidence for the impact of the interaction of COVID-19 and other shocks was also analysed separately.

The analysis drew on both qualitative and quantitative evidence in different ways across the analytical focus areas. Most of the focus areas included items with a range of qualitative, quantitative, and review-type evidence that differed in terms of purpose, research questions, and methodologies. Key findings for each focus area were summarised and grouped around themes using a narrative synthesis approach. The evidence relevant to the food systems focus area included sufficient qualitative evidence to enable a thematic synthesis. Prominent or recurrent descriptive themes of peoples' experiences of accessing food during the COVID-19 pandemic were identified and developed (Barnett-Page & Thomas, 2009; Thomas & Harden, 2008). This was undertaken using NVivo2020, version 1.3. We additionally scanned all included items for evidence about the impacts on vulnerable populations and for positive impacts and resilience, to ensure these were extracted and analysed.

Findings from both these steps were synthesised and integrated into the analytical themes and conclusions presented in this report. We searched for commonalities and differences, and the potential reason for these, and how the themes related to each other.

2.4. Presentation of findings

The analysis section has been structured by the SPC focus areas, and each focus area structured around key themes identified from the evidence.

At the start of each section, information about high level impacts observed across the region is provided, followed by impacts reported at the community or household level. PICTs identified in the text have been referenced as an illustration of the finding, which means these impacts may also have been felt in other PICTs but these have not been included in the text. For more detail on what findings are relevant for each PICT, see Appendix C.

The health systems section is the only section that includes projected and potential impacts, because of the type of evidence available.

3. ANALYSIS

Of the 116 items identified and included in Phase 1, 71 items were included for analysis in Phase 2. Databases were excluded from this analysis because all relevant information from these was downloaded and included separately.

3.1. Introduction to the evidence-base

The 71 items in the Phase 2 analysis included five broad types of evidence. Table 1 outlines the type of evidence included in this analysis.

Our analytical approach was based on privileging first-hand accounts of the experiences of Pacific people and communities during 2020. This evidence was found in community-based research, national/regional surveys, and socio-economic impact assessment (SEIA) and other assessments.

Table 1 Types of evidence available

Type of evidence	Characteristics	Included evidence
Community-based research	A mix of surveys and focus group research. Includes some open-ended, qualitative responses.	• Series of coastal community surveys (Fiji, Solomon Islands, Tokelau, Tuvalu, Tonga, & FSM) • Two rapid assessments of food systems and food security based on these coastal surveys (Solomon Islands & Vanuatu) • Two USP nutrition and food security assessments (Solomon Islands & Fiji)
National/Regional surveys	National surveys, and surveys of particular topic areas. These reports include survey findings, context and analysis, and include some qualitative open-ended questions.	• Two general population phone surveys (Solomon Islands & PNG) • Series of Pacific Business Monitor surveys of SMEs (multiple PICTS) • ILO Rapid Assessment on employment and business (Samoa & Fiji) • Pacific Farmers Organisations survey (multiple PICTs) • World Food Programme mobile Vulnerability Analysis Mapping (Fiji, Samoa & Tonga) • Pacific Islands Export Survey (multiple PICTs)
SEIA and other assessments	Mixed methods assessments by desktop review, survey data and/or informant interviews or focus groups of community members. Assessments primarily by desktop review and stakeholder/key informant interviews.	• Assessment of food system vulnerabilities and opportunities (multiple PICTs) • Gender, Disability and Inclusion Analysis (Fiji) • UN Urban systems assessment (Fiji) • UN SEIA Advance report (PNG) • Rapid assessment of labour mobility across the Pacific • Assessments on social cohesion (multiple PICTs) • UN SEIA Full report (Fiji) • Pillar 1 health services and systems assessments (multiple PICTs) • Two Vanuatu Post Disaster Needs Assessment reports • FAO Pacific small island developing states responses (multiple PICTs) • Rapid appraisal on employment, MSMEs and informal sector in Fiji

Type of evidence	Characteristics	Included evidence
Briefings or reports	Includes quantitative data from a range of sources, context, analysis and recommendations.	Major economic organisations: • Two Asian Development Bank Pacific Economic Monitor reports, including policy briefs (multiple PICTs) • Three World Bank reports (PICTs economic update, macroeconomic and job impacts report, labour mobility report) (multiple PICTs) Other documents: • Thematic briefs – Impact on adolescent girls. Context, insights from 21 girls, and recommendations • Rapid policy appraisal on employment MSMEs • FFA Forum Fisheries Committee meeting papers
Data and commentary	Primarily national-level data and reports	• SPC Economic updates and short reports on visitor arrivals and merchandise trade • Blogs from the DevPolicy website • Two short economic reports from Comptes Economiques Rapides pour l'Outre-mer

A number of pieces of evidence included in this analysis are assessments of the five pillars of work within the United Nations (UN) socioeconomic response framework for supporting the needs and rights of people living within the COVID-19 pandemic. The socio-economic impact assessments (SEIA) are the first step towards developing plans and ensuring resources are available in response. The five pillars of work are: Pillar 1 Health First – protecting health services and systems during the crisis; Pillar 2 Protecting People – social protection and basic services; Pillar 3 Economic Response and Recovery – protecting jobs, small and medium-sized enterprises, and the informal sector workers; Pillar 4 Macroeconomic Response and Multilateral Collaboration; Pillar 5 Social Cohesions and Community Resilience.[5] These five streams complement the Sustainable Development Goals (SDGs).

[5] https://unsdg.un.org/sites/default/files/2020-04/UN-Framework-for-the-immediate-socio-economic-response-to-COVID-19.pdf

3.2. What were the impacts of COVID-19 on governance?

Governance as described by the Pacific Islands Forum includes concepts of political leadership, the rule of law, commitment to equal rights, and strong and transparent political and economic processes systems.[6] There was limited evidence within the items included in this synthesis about many of these concepts at a national level. There were a number of qualitative items of evidence discussing community leadership across many PICTs.

3.2.1. The COVID-19 response has been a regional response

Governments were active during 2020 providing oversight and direction on national response activities. Emergency responses including lockdowns, other restrictions, procurement of equipment, passing emergency budgets and allocating stimulus packages were enacted. The Pacific Islands Forum invoked the *Biketawa Declaration*, enabling a regional response to the crisis as "one Blue Pacific family", and a Pacific Humanitarian Pathway on COVID-19 was established to enable efficient provision of supplies and resources throughout the region.[7]

Regional agencies, development partners, and civil society also responded with immediate aid and other support, refocused programmes, and used resources to assist and inform governments (Pacific Islands Forum Secretariat, 2020). Former Pacific Islands Forum Secretary-General Tuiloma Neroni Slade observed that the COVID-19 crisis has exposed the "strength of regional leadership and response"[8].

The evidence also identified a need for strengthened governance and improved coordination and decision-making for recovery. This was identified in sectors including economic, regional food systems, health, urban systems, technology, and in post disaster needs assessments (Aelbers et al., 2020b; Doan et al., 2020; Government of Vanuatu, 2020; Robins et al., 2020; United Nations Pacific, n.d., 2020d).

3.2.2. Different ways of governing were found

There was evidence of governance processes shifting online. Online platforms were used successfully in Fiji, Tokelau, and FSM to ensure parliamentary or other governance processes could continue (Huffer, 2020b; United Nations Pacific, 2020d). There is no evidence of the impact of this, although it was noted that usual debate and oversight functions in Fiji could not be undertaken due to distancing measures and the need for faster decisions (United Nations Pacific, 2020d). In FSM a virtual parliamentary debate on the COVID-19 stimulus package was broadcast live on the FSM Congress YouTube channel, enabling public viewing (Huffer, 2020a). Several authors noted the potential for using online services and e-governance as a way to enhance governance effectiveness in the future (Aelbers et al., 2020b; United Nations Pacific, 2020d).

3.2.3. Traditional governance systems were critical at the local level

At the local level, traditional governance structures such as village leaders, committees and councils played an integral part in governance and leadership of the COVID-19 response and managing the local impacts.

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[6] https://www.forumsec.org/governance/#
[7] https://www.forumsec.org/covid-19-updates-from-the-secretariat/
[8] https://www.policyforum.net/voices-of-pacific-leaders-covid-19-and-the-path-to-recovery/

For example, in the Cook Islands a pre-existing disaster management system consisting of village-based committees, called 'puna', coordinated awareness and prevention activities including deploying health personnel and assisting elderly and other vulnerable groups (Huffer, 2020b). In Tokelau, each of the villages developed a response plan in committees that included women and youth representatives (Huffer, 2020b). In urban Fiji, committees provided aid and support to vulnerable groups (Cowley, 2020). In other communities, committees were active in introducing rules around social movement, raising health awareness, and ensuring government measures and messages were relayed to their communities (Eriksson et al., 2020; Huffer, 2020a).

In other communities, the usual communal nature of committees was suspended due to social gathering restrictions and decisions were subsequently made by the village headman (Cowley, 2020).

Traditional practices and knowledge were also critical in managing the local impacts of COVID-19, such as food insecurity and managing resources. In the Solomon Islands, active community-based resource management committees contributed to managing the community impacts of COVID-19 by organising group harvests, raising awareness of fisheries rules and enforcement, sustaining harvests to feed larger populations, contributing money to health centres, and continuing fish sales in local villages and major towns (Eriksson et al., 2020). Similar marine management committees were reported to manage and enforce resources in PNG and Tuvalu (LMMA Network, PNGCLMA, et al., 2020; LMMA Network & Tuvalu Fisheries Department, 2020). Local leaders also shared their knowledge and encouraged people to plant gardens, including traditional crops, and in Vanuatu there was evidence that leaders would ensure people were freed from their other communal responsibilities to do this (Steenbergen et al., 2020).

In some areas of Vanuatu, community disaster committees from previous disasters were also reactivated to communicate messages, put social distancing measures in place, and manage other responses (Steenbergen et al., 2020). However, the compounding effect of TC Harold and COVID-19 was felt on traditional governance structures. TC Harold damaged or destroyed culturally significant structures such as churches and nakamals, and disrupted local governance and decision-making processes traditionally provided by these (Government of Vanuatu, 2020). While traditional knowledge and practices provided a "safety net", the Post Disaster Needs Assessment identified a lack of coordination between national level and community level governance response to TC Harold and COVID-19 (Government of Vanuatu, 2020).

3.2.4. There was limited evidence of impacts in the legal and judicial systems

PICTs implemented state of emergency preventive measures that closed borders and restricted peoples' movements, closed or restricted businesses, schools, and public places, and implemented packages of support or spending restrictions for groups of people.

There was limited evidence of the legal and judicial impacts of these measures, although issues of government powers and human rights in relation to restricted movements and curfews, quarantine orders, freedom of expression, and closure of public places have been raised, for example in the Solomon Islands.[9]

In Fiji there were reports of challenges in courts for arrests for breaching COVID-19 restrictions, and that physical distancing was not possible in cells. The Corrections Services and courts moved

[9] https://law.unimelb.edu.au/__data/assets/pdf_file/0006/3474906/MF20-Web1-Solomons-Kekea-FINAL.pdf

to online court hearings to maintain justice systems and family visits for prisoners (United Nations Pacific, 2020d). The Pacific Judicial Strengthening Initiative, a Pacific regional programme, realigned its work programme in response to the restricted capacity and operations of the courts to administer justice to citizens they serve and new priorities as a result of COVID-19 (Federal Court of Australia & Pacific Judicial Strengthening Initiative, 2020). Refinements to the work programme included using online remote delivery of court services, improved management of court data collection, support for vulnerable groups, and enhancing judicial experience sharing and education (Federal Court of Australia & Pacific Judicial Strengthening Initiative, 2020).

3.3. What were the impacts of COVID-19 on health systems?

The spread of COVID-19 throughout the Pacific region was limited by geographical remoteness and the quick action of Pacific governments in closing borders. While the level of infection remained low during 2020 in most countries and territories, Asian Development Bank (ADB) (Aelbers et al., 2020b) and UN SEIA Pillar 1 authors anticipate significant, long-term negative impacts of COVID-19 on PICT health systems. There is a notable lack of evidence in this synthesis for French Polynesia, Papua New Guinea, and Guam, where total case numbers have reached over 18,000, 10,000, and 7,000, respectively, at time of writing and the effects on the health system may be expected to be quite different.

Within the evidence-base there was limited empirical evidence about impacts on the health system or health outcomes and a small amount of qualitative evidence about impacts on individuals.

3.3.1. Health systems are vulnerable and are under increased funding pressure

COVID-19 has placed additional pressure on health systems operation and financing and has highlighted the vulnerability of many health systems across the Pacific (Aelbers et al., 2020b). Health systems in most PICTs are primarily publicly funded and delivered, but many rely on health aid for essential services and programmes, and experience inadequate investment, a lack of staff and other resources, and weak infrastructure (Aelbers et al., 2020b; United Nations Pacific, 2020b).

The UN SEIA Pillar 1 assessments (written May to June 2020) report significant allocations of funds by governments to their health sectors for COVID-19 preparedness and initial response activities, and financial, technical and in-kind support from the WHO and development partners. Countries are also aware of the need for further health system funding, and some have allocated additional funds. For example, Fiji is building health system capacity and supporting health workers to respond to COVID-19 (United Nations Pacific, 2020d). New Caledonia obtained a French Development Agency loan, in part for health system measures (Ardoino & Fagnot, 2020). However, the ongoing uncertainty of the required level of cost and expenditure in the health system to respond to COVID-19 has been identified as having a major impact on governments' ability to plan and assign additional funding within the health sector.

Although public health funding needs have increased as a result of COVID-19, the UN SEIA Pillar 1 reports conclude that fiscal space[10] for health is limited across PICTs and that the economic impacts of COVID-19 will place additional financial pressure on governments and likely affect their ability to assign funding to the health sector. (United Nations Pacific, 2020b). Governments are facing an overall reduction in revenue as a result of economic impacts of COVDI-19[11]. Authors considered that there could be potential reduction within the health sector of out-of-pocket payments as household incomes are affected, and potential pressure of declining financial assistance from development partners (Aelbers et al., 2020b). These partners have their own economic challenges, and may be increasingly under pressure to consider financing requirements from other strategically important sectors alongside health (Aelbers et al., 2020b). Some PICTs governments, including the health systems, also remain under financial pressure as they recover from natural shocks including tropical cyclones Harold, Winston, Tino and Gita (Government of Vanuatu, 2020; United Nations Pacific, 2020c, 2020d).

3.3.2. Some services have been disrupted and resources re-directed from the health sector

PICTs initial funding allocations to COVID-19, including procurement of PPE and medical supplies and implementation of preparedness and response measures, have largely been from within the health sector budget (Aelbers et al., 2020b; United Nations Pacific, 2020b). While estimated country costs of the COVID-19 response are not available, it is likely that the reallocation and reprioritisation of health budgets will have meant that resources were diverted from other, non-COVID-19, areas of the health system.

In general, UN SEIA Pillar 1 assessments reported limited disruptions to health services and that most services have been sustained up until around May or June 2020. Some PICTs services reduced operating hours or staff or delivered from alternate locations. There were some disruptions attributed to lack of medicines or other equipment, and movement restrictions.

One study, a WHO rapid assessment of the impact of COVID-19 on non-communicable disease (NCD) services, found some Western Pacific countries diverted staff and resources.[12] In the Pacific, NCDs are the leading cause of death and account for approximately 75% of total mortality.[13] It is possible that there may be longer term impacts on NCD-related morbidity due to disease progression and complications as a result of deferred health care during COVID-19.

UN SEIA Pillar One assessments specifically reported the following service disruptions:

- A range of NCD screening, surveys, primary care services, programme monitoring and evaluation, communication campaigns and outreach activities, including the HOPE-Health Outreach Program for Equity in Kiribati, have been disrupted in FSM, Tonga, Palau, Kiribati, and Fiji. NCD services were also suspended or destroyed due to TC Harold in some provinces in Vanuatu.

[10] Fiscal space is commonly defined as the budgetary room that allows a government to provide resources for public purposes without undermining fiscal sustainability. https://www.who.int/health_financing/topics/fiscal-space/why-it-matter/en/

[11] See Section 3.3 for economic impacts. Overall, PICT governments are facing declining revenue from a reduction in tourism, trade, service and business sectors, and consumer spending.

[12] https://apps.who.int/iris/bitstream/handle/10665/334136/9789240010291-eng.pdf

[13] https://www.spc.int/updates/blog/2020/06/covid-19-is-compounding-the-pacifics-non-communicable-disease-crisis

- In Tuvalu, the Ministry of Health diverted staff to partially support COVID-19 response activities while continuing to provide uninterrupted inpatient and outpatient NCD services.
- Mild disruption to communicable diseases health services, such as TB and leprosy, due to disrupted supply of medicines in Kiribati.
- Overseas treatment schemes and visits of specialised medical service teams were disrupted in Kiribati, FSM, Palau, and Tonga.
- Non-urgent clinics reduced or cancelled in Palau.
- Rehabilitation and palliative care services were partially disrupted in Fiji.
- Sexual and reproductive health and maternal health services have been constrained in PNG.

The UN Pillar One assessments also reported reduced attendance to services even when they were open. There was little evidence about why people did not attend. The Fiji UN SEIA assessment indicated an initial reduction in service utilisation in Fiji due to fear of contracting COVID-19 (United Nations Pacific, 2020d), but there is little evidence of this elsewhere. The PNG general population phone survey looked for evidence of health care avoidance, but found none (Himelein, Waldersee, & Wirapati, 2020). There were anecdotal reports of people, including pregnant women and elderly, being unable to access clinics in Fiji due to restricted transport (Cowley, 2020). People living with HIV/AIDS have reported having difficulty accessing medical supplies and medications because of transport restrictions in PNG (United Nations Development Programme, 2020). Case study stories and anecdotal reports from PNG also show barriers to accessing health facilities, including through closures of services or roads (Robins et al., 2020). The International Planned Parenthood Federation reports disruptions in family planning and sexual health services, mobility restrictions for women and girls, and disrupted supply chains of contraceptives. Pacific Women also report restricted access to WASH facilities and supplies to help manage periods (Australian Aid & Pacific Women, 2020). The inability to send patients overseas for treatment to New Zealand, Australia, India and other countries may have had a significant impact on individuals' health status, and potentially resulted in reduced short-term costs of care to PICT health systems.

There was no reported increased transmission of COVID-19 among healthcare workers in Fiji (United Nations Pacific, 2020d), and no other sources of evidence reported transmission in healthcare workers in other countries.

3.3.3. COVID-19 has affected peoples' health and wellbeing

A variety of studies, including coastal community surveys, business surveys, food security assessments, and UN SEIAs reported people are experiencing increased levels of stress and anxiety due to COVID-19. Areas of stress include financial stress, stress about family members, job losses, losses of livelihoods, anxiety about the future, stress of looking after children, stress of food shortage and increasing food prices, fear there may be a shortage of medicines, and stress about disruption of medical services (Cowley, 2020; Fifth Quadrant, 2020b; United Nations Development Programme, 2020; United Nations Pacific, 2020d; Wairiu, Iese, Navunicagu, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020; WCS & PEUMP, 2020). In the Cook Islands, there were anecdotal reports of people struggling with "loneliness and anxiety", and the Ministry of Health, alongside business organisations, ran stress and anxiety workshops (Huffer, 2020b).

People reported the ban on social gatherings and lack of community affected their mental health (Cowley, 2020; Huffer, 2020a, 2020b; Steenbergen et al., 2020):

> *The measures against socialising with friends, neighbours and family has affected our day-to-day relationships we value and rely on, […] we find it strange and impossible to cope with* (Steenbergen et al., 2020)*, Vanuatu.*

The number of Pacific Business Monitor respondents reporting negative impacts on their own mental health remained fairly stable at approximately 60-70% throughout the survey series lifespan (May to December 2020). A greater proportion of respondents reported a negative impact of COVID-19 on community wellbeing, with 70-89% reporting this over the series. Approximately 7-11% of respondents reported no impact of COVID-19 on community wellbeing throughout the survey series, and reports of positive impacts ranged from 5-13% (Fifth Quadrant, 2020b).

A Fijian youth survey found young people are making efforts to look after their mental health and wellbeing, but that emerging issues included a need for awareness and access to mental health and psychosocial support services (United Nations Pacific, 2020d).

The only source of evidence on potential health impacts for those living with disabilities was from a report of a survey of people with psychosocial disabilities and living on the streets of Suva, Fiji. In it, 65% of those surveyed had not heard of COVID-19, did not know the symptoms, and had not been screened by health professionals as at June 2020 (Cowley, 2020).

Positive impacts of COVID-19 on mental health and wellbeing have also been reported. People in Fijian communities experienced strengthening of relationships within families due to spending time together, and improved social relations and greater unity from working together within their communities (Wairiu, Iese, Navunicagu, et al., 2020). Anecdotal reports from Kiribati say that maintaining cultural practices and values meant people felt more secure during this unsettling period (Huffer, 2020a) .

3.3.4. The health system has adapted

The Pillar One assessments report health system innovations such as telemedicine, and increased community outreach alongside novel supply chain and dispensing options as ways of sustaining routine services.

There has also been a renewed focus on the importance of health systems, and investment in the workforce, surveillance protocols, facilities, and creating structures that support co-ordination and decision-making at speed (Aelbers et al., 2020b; Government of Vanuatu, 2020; United Nations Pacific, 2020b, 2020d).

3.4. What were the impacts of COVID-19 on economies and livelihoods?

Although many PICTs have not experienced widespread COVID-19 infection, the pandemic adversely affected almost all activities in economic and social sectors, with all economies being affected by the collapse of tourism, disruption of trade, reduced economic activity and consumer spending, and declines in government revenues (Pacific Community, 2020a).

The evidence base reflected the widespread impacts of COVID-19 on peoples' ability to ensure their livelihoods, with good quality economic statistics and reports, a range of SEIA and research

papers about the labour market, business surveys, general population surveys, and some community research.

3.4.1. Disruption to travel and transport has had a widespread impact

Visitor arrivals to 12 PICTs[14] dropped on average by 62% in the first half of 2020 compared to 2019, including a 99% drop for the second quarter compared to the same time in 2019 (Pacific Community, 2020b). With the almost complete disappearance of tourism, revenues from the aviation, cruise ship, hotel, hospitality, cultural, entertainment and service industries, and those that supply these industries with food and arts and crafts also dropped (Cowley, 2020; Pacific Community, 2020b). This has significantly affected countries including Fiji, Cook Islands, French Polynesia, Palau, New Caledonia, Niue, Samoa, Tonga and Vanuatu (Aelbers et al., 2020b; Ardoino & Fagnot, 2020; Institut d'Émission et al., 2020; Pacific Community, 2020b).

Export earnings have fallen in Fiji, Samoa, Tonga and Tuvalu (Lal & SPC Statistics for Development Division, 2020; Pacific Islands Forum Secretariat & Pacific Trade Invest Australia, 2020) and PNG (Howes & Surandiran, 2020a). Disruption to trade flows due to the grounding of the aviation sector, stricter controls on trade, and economic lockdowns have contributed to the decline in both exports and imports (Aelbers et al., 2020b; Lal & SPC Statistics for Development Division, 2020). Travel restrictions and inability to move around countries have also resulted in delays to key infrastructure projects (Aelbers et al., 2020b).

3.4.2. There has been widespread loss of jobs

All sources of evidence consistently reported that the restrictions, business closures, loss of markets and reduction in consumer demand resulted in loss of employment or reduction in work hours in both the formal and informal sectors.

The ILO Rapid Assessment of Fijian and Samoan workers reported half of Fijian workers and a quarter of Samoan workers lost their jobs, and many of those that have not were on reduced hours. Unemployment benefit claims in the Fiji National Provident Fund increased sharply in May 2020 and were sustained in June 2020 (Arahan et al., 2020). Up to 40% of households in some urban and rural Fijian communities had lost their jobs as a result of COVID-19 (United Nations Pacific, 2020d; Wairiu, Iese, Navunicagu, et al., 2020). Job losses due to COVID-19 were also reported in PNG (Himelein, Waldersee, & Wirapati, 2020; United Nations Development Programme, 2020), the Solomon Islands (Himelein, Waldersee, Wirapati, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020) and Vanuatu (Arahan et al., 2020). In PNG, the UN SEIA household survey showed 60% of households experienced a significant decline in income, and 42% of formal sector workers and 35% of informal workers had their incomes affected (United Nations Development Programme, 2020).

A labour market analysis reported a "weak" market in the first half of 2020, with fewer job vacancies advertised in Tonga, Fiji, and PNG (Arahan et al., 2020). However, there was also emerging evidence of a shift towards opportunities for crafts and trades in Fiji, business, economics and management in Vanuatu and Fiji, and professionals in Vanuatu and Samoa. Demand for high-skilled jobs remained high, compared to semi-skilled (Arahan et al., 2020).

[14] The 12 PICTs are: Cook Islands, Guam, Fiji, Kiribati, New Caledonia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

There is some evidence that people living in rural areas were able to continue their usual activity without much variation in source of income. Rural communities in the Solomon Islands continued agricultural activities, farming and selling a range of products, operating transport businesses, and working in NGOs (Himelein, Waldersee, Wirapati, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020). General population phone surveys in the Solomon Islands reported 92% of households engaged in agricultural activities as normal, and in PNG 95% of households reported this (references). This household information contrasts to the UN SEIA survey of firms in PNG that reported a 19% decline in agricultural production (United Nations Development Programme, 2020), reflecting the difference between individual and household and business experiences.

3.4.3. Businesses have taken action to stay in operation

Micro, small and medium sized enterprises (MSMEs) drive inclusive economic growth and generate employment, and are an important part of the economy (Dahal & Wagle, 2020). Many of these businesses operate within the service sector and have been impacted by the loss of tourism and lack of demand. Most countries have implemented measures to help MSMEs, including making finance available through loans and credit schemes, tax and import duty reductions, and deferrals of various payments (Arahan et al., 2020; Dahal & Wagle, 2020).

The majority (89%) of small and medium sized (SME) businesses in the December 2020 Pacific Business Monitor report a negative impact on their businesses and a decline in revenue due to COVID-19. This has been consistent throughout 2020, with slight shifts towards less severe impacts as the year progressed. In December 2020, 34% were fully operational, an additional 43% were partly operational, and 23% were temporarily closed. Most businesses reduced operational costs (78%) and reduced working hours (54%). Other actions taken included diversification (40%), reducing staff numbers (39%, down from the highest proportion of 50% in May 2020), and reducing staff wages (37%, down from the highest proportion of 45% in October) (Fifth Quadrant, 2020b). In PNG, 54% of SME firms reported reducing staff wages, and 32% made at least 60% of their staff redundant (United Nations Development Programme, 2020). Several business surveys report businesses having difficulty accessing finance and repaying loans (Fifth Quadrant, 2020b; Pacific Island Farmer Organisations Network, 2020; United Nations Development Programme, 2020).

These impacts have been consistently reported across all PICTs, although Tuvaluan businesses notably reported less severe overall impacts and decline in revenue, and greater confidence in business survival and satisfaction with their government's response than all other countries surveyed in October 2020 and December 2020 (Fifth Quadrant, 2020b). In the November 2020 survey, a higher proportion of businesses in Niue also reported confidence in business survival. These results could be due to small sample sizes or could reflect a different business context to the rest of the Pacific. A higher proportion of Cook Islands' businesses reported very negative impacts and significant declines in revenue than all other countries, which may reflect its dependence on tourism. Impacts on businesses would also be expected to differ based on pre-COVID situation, size, and the sector it operates in.

3.4.4. Pacific overseas workers have been adversely affected

Many Pacific Islanders are employed overseas, with special pathways such as seasonal worker schemes or open access arrangements with labour markets in other countries. Many Polynesian and Melanesian countries have arrangements with Australia and New Zealand (such as the

seasonal workers schemes), and citizens of the Marshall Islands, FSM and Palau have access to the US labour market (Doan et al., 2020).

Sudden border closures meant Pacific Island workers felt immediate impacts from COVID-19. Prospective temporary and seasonal workers from Fiji, Tonga, Tuvalu, and Vanuatu were unable to leave for assigned jobs in Australia and New Zealand (International Organization for Migration Fiji, 2020). Many of these workers were then unemployed, and key informants in the IOM research reported they weren't eligible for income support measures such as for those who had lost their job (International Organization for Migration Fiji, 2020).

Workers in host countries were also stranded. Employers and other stakeholders in Australia and New Zealand supported these workers to find other work while they remained in those countries, although some workers reported reduced hours and a lack of income while waiting for new placements (Arahan et al., 2020; International Organization for Migration Fiji, 2020). The Australian Government allowed unemployed temporary labour migrants to withdraw unemployment benefits from their superannuation savings. Workers overseas reported anxiety over extended periods of family separation and financial pressures (International Organization for Migration Fiji, 2020).

Remittances from overseas workers play an important part in many PICTs' economies and contribute a significant proportion of GDP in Tonga, Marshall Islands, Tuvalu, Samoa, Fiji and Kiribati (International Organization for Migration Fiji, 2020; World Bank, 2020). Remittances are an important supplement to household income, which families use to purchase essential items such as food and protect themselves against shocks (International Organization for Migration Fiji, 2020; Robins et al., 2020; Unknown, 2020). From March 2020, there was a sharp drop in remittances to Fiji, Samoa and Tonga, but these recovered from May 2020 for Samoa and Tonga and from July 2020 for Fiji (Arahan et al., 2020; Howes & Surandiran, 2020b). This is reflected in the Fijian World Food Programme (WFP) vulnerability mapping assessment that identified remittances holding steady in the last 3 months of 2020 (World Food Programme, n.d.-a). A caveat to these data is that this may be the result of needing to use formal remittance methods rather than informal methods (such as carrying cash). There is some evidence that those sending remittances had problems accessing money transfer operators that had adapted to online methods. Some had no capability or internet access to send money, and so did not (International Organization for Migration Fiji, 2020).

3.4.5. Households have experienced financial stress

Financial stress in response to job losses and ongoing uncertainty was reported relatively consistently across all types of evidence, including the two general population phone surveys in PNG and the Solomon Islands, where reports of anxiety about household finances was consistent across demographic and geographic categories (Himelein, Waldersee, & Wirapati, 2020; Himelein, Waldersee, Wirapati, et al., 2020).

Households reported a range of ways of coping with the reduction in their incomes. Strategies included reducing consumption (both non-food and food spending), spending from savings, reducing the number of children going to school, finding ways to earn extra money, selling harvests in advance, and receiving assistance from friends or family (Himelein, Waldersee, Wirapati, et al., 2020; United Nations Development Programme, 2020; Wairiu, Iese, Navunicagu, et al., 2020). In PNG and the Solomon Islands, 85% of households reported using at least one coping strategy since March, although this cannot be attributed directly to COVID-19. In the Solomon Islands 45% of households reported using at least five strategies, and nearly one-third

in PNG reported using at least four. In Fiji, a higher proportion of households with those living with a disability reported adopting negative coping strategies, with an increase in those reporting negative coping strategies for meeting essential needs from September to November 2020, suggesting an inability to keep withstanding the ongoing effects of COVID-19 (World Food Programme, n.d.-a).

Households have also borrowed money to cope with financial pressure. In PNG, 16% of households reported taking on additional debt, including delaying loan repayments, purchasing items on credit, or taking additional loans (Himelein, Waldersee, & Wirapati, 2020). People in the Solomon Islands have also reported borrowing money to meet the costs of food, transport and medical expenses (Wairiu, Iese, Walelenea, et al., 2020). In urban informal settlements in Fiji, almost three quarters of focus group respondents who withdrew Fiji National Provident Fund funds in the past 60 days used some or all of these funds to purchase food (United Nations Pacific, n.d.). One source in PNG found higher levels of those in urban areas reporting finding ways to make money and reducing non-food consumption those in rural areas (Himelein, Waldersee, & Wirapati, 2020).

The evidence suggests most ways of earning extra money are focused in the informal sector, with reports of selling handicrafts, baking, kava or cigarettes, providing services such as cutting grass or cleaning, or selling agricultural produce (United Nations Pacific, n.d.; Wairiu, Iese, Navunicagu, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020).

There is some evidence of a difference in ability to immediately cope with the effects of COVID-19 based on access to land and resources. Many Pacific Island people were able to turn to subsistence agriculture or fishing in response to a lack of money and food, and also used resources from the land for houses (for example, thatching) and to make products to sell at markets (Huffer, 2020a; Wairiu, Iese, Walelenea, et al., 2020). Rural communities in the Solomon Islands continued agricultural activities, farming and selling a range of products, operating transport businesses, and working in NGOs (Himelein, Waldersee, Wirapati, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020). However, there were a number of people, particularly in urban areas or informal settlements, who had no access to these resources, and may be faring worse (Cowley, 2020; ILO Office for Pacific Island Countries, 2020 Unknown, 2020)). In some urban settlements, this is compounded by overcrowded conditions, shared facilities, and lack of water and sanitation (United Nations Pacific, 2020d).

There is also some evidence from late November 2020 that some sectors are recovering from the earlier inactivity. In New Caledonia and French Polynesia, household savings increased during 2020, and in New Caledonia people are spending in the local economy, particularly in the automobile, renovation work, and home improvements sectors (Ardoino & Fagnot, 2020; Institut d'Émission et al., 2020).

3.4.6. There is mixed evidence on the impact of migration on livelihoods

Evidence from the Solomon Islands suggests significant internal migration, with a general population phone survey estimating up to 20% of the Honiara population migrated out to other urban areas between April to June 2020 (Himelein, Waldersee, Wirapati, et al., 2020). The majority of respondents in coastal communities surveyed in the Russell Islands and the Western Province also reported people returning to their communities (Wale & LMMA Network, 2020). All sources of evidence indicate that those moving are more likely to be unemployed/lost their jobs. This evidence is consistent with the government directive for urban dwellers without formal

employment to return to their provinces and the ban on informal sale of goods at streetsides and suburbs (Eriksson et al., 2020).

The surveyed coastal communities attributed a range of impacts to this migration. They reported increased pressure on fishing and agricultural resources, and increases in prices of fresh fish and staple foods in some areas, affecting those without access to resources disproportionately (Wale & LMMA Network, 2020). In Honiara's central market, sales declined and farmers reported reducing prices and thus losing income as a result of the out-migration (Wairiu, Iese, Walelenea, et al., 2020).

Respondents in other coastal community surveys in Tonga, FSM, and PNG reported minimal migration. Approximately half of the 13 coastal Fijian communities noticed people returning home, particularly in areas affected by tourism, but reported little impact on the communities.

In PNG, general population phone survey respondents reported limited migration, with an estimated 3% of respondents reported moving to another province in the last three months, and with no evidence of major urban to rural shifts (Himelein, Waldersee, & Wirapati, 2020).

3.4.7. Governments have responded with social protection measures

In response to widespread economic and social impacts of job losses and reductions in household incomes, PICT governments have implemented COVID-19 response or economic stimulus packages. The Asian Development Bank reports Pacific developing member countries[15] are on average allocating 28.9% of stimulus spending to social protection aimed at the most vulnerable groups. These measures include social assistance, social insurance, and labour market programmes. The second priority is business and tourism (21.3%), followed by health preparedness (14.8%), food security (8.5%) and infrastructure (4.7%) (Aelbers et al., 2020b).

Government measures have included wage subsidies, reductions in social security contributions, scaling up social assistance or exemptions, and income protection cash payments or allowances for those in the informal sector or recently unemployed (Arahan et al., 2020). PICTs including the Cook Islands, Fiji, FSM, Samoa and Tonga have all implemented support for poor households and vulnerable groups, such as households headed by women, older people, and people living with a disability (Aelbers et al., 2020b). However, there was a lack of evidence on the impacts of these measures. In the PNG SEIA household survey, 81% of households reported that their living conditions had worsened as a result of COVID-19 (reference). Governments are also looking into the future, addressing questions on how to finance support and other measures, and deal with an increasing debt burden in a longer-lasting pandemic (Ardoino & Fagnot, 2020).

3.4.8. There is limited evidence about the impact on the informal sector[16]

Most employment in PICTs is informal, with informal workers making up a high proportion of jobs in the tourism industry and subsistence agriculture and fisheries (Arahan et al., 2020; Dahal & Wagle, 2020; Robins et al., 2020). Women's economic participation is mostly in the informal sector, particularly in tourism, as market vendors (Aelbers et al., 2020b), and in the agricultural sector (Aelbers et al., 2020b; Cowley, 2020). For example, in Fiji women make up one third of the

[15] ADB's Pacific developing member countries include: Fiji, Vanuatu, Palau, Cook Islands, Solomon Islands, Marshall Islands, FSM, Samoa, Tonga, PNG, Nauru, Kiribati, and Tuvalu.

[16] The informal sector is defined by the International Labour Organisation as "all economic activities by workers that are – in law or in practice – not covered (or insufficiently covered) for formal employment arrangements. https://www.ilo.org/asia/areas/informal-economy/lang--en/index.htm

tourism workforce and 85% of all market vendors, and 40% of rural women work as farmers or farm workers in the informal economy (Cowley, 2020).

Workers in the informal economy are more vulnerable to the economic impacts of COVID-19 than those in the formal sector because they are excluded from social insurance or social protection programmes. Because they are not registered, they are also difficult for governments to provide relief packages to (Aelbers et al., 2020b; Arahan et al., 2020). People working for wages also sometimes rely on the informal economy to make ends meet (Huffer, 2020b).

Despite the importance of the informal sector and the vulnerability of the people working in it, there is a lack of data on the economic impacts of COVID-19 on those working in the informal sector.

Various authors considered that informal workers, including the self-employed and micro- and small enterprise owners, were more likely to lose their income sources due to restrictions on business and market-selling, including restrictions in public spaces, and the decline in the tourist industry (Arahan et al., 2020; Cowley, 2020).

3.5. What were the impacts of COVID-19 on food systems?

There was a large amount of evidence of impacts in the food systems compared to other focus areas. Much of this consisted of a series of research in coastal communities in Fiji, the Solomon Islands, FSM, PNG, Tuvalu, Tonga, and Vanuatu. There were also regional food systems and food security reports.

3.5.1. There were disruptions in food supply

Country lockdowns and transport and travel restrictions resulted in significant short-term impacts on local food trade and supply. Distribution channels were disrupted, market operating hours were limited in many countries, and there were reductions in supply of local produce and fish to markets and in overall sales in Cook Islands, Fiji, New Caledonia, Samoa, Solomon Islands, Tonga, and Vanuatu (Pacific Island Farmer Organisations Network, 2020; Robins et al., 2020; Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020). Stocks of imported food ran low in a number of PICTs. In Kiribati, container ships were turned away due to fear of COVID-19 transmission, and there were subsequent shortages of food and other basic goods until protocols were put in place (United Nations Pacific, 2020a).

The closure of tourism businesses meant a loss of market for produce and seafood destined for restaurants, hotels and resorts. Initially, this resulted in local produce being diverted to local markets, for example in Fiji and Cook Islands, and farmers report resorting to leaving their produce going to waste in Cook Islands and Samoa (Pacific Island Farmer Organisations Network, 2020). It also prompted a change in farmers' business practice and a search for new markets. In some countries, for example Cook Islands and Fiji, farmers began selling produce directly to consumers at the farm gate (Pacific Island Farmer Organisations Network, 2020; Robins et al., 2020). This meant that in some rural areas food availability was enhanced (Robins et al., 2020).

Responses to the disruption in supply focused on enabling local supply chains to provide, distribute and sell local produce. In Fiji and Vanuatu, actions were taken by national agricultural agencies to ensure those in locked-down areas had access to fresh food and produce, including purchasing and delivering food to markets (e.g. Lautoka and Suva markets, Fiji) and to urban

warehouses (Port Vila, Vanuatu), ensuring markets were fit for use (Honiara, Solomon Islands) and promoting the use of trucks to sell produce (Vanuatu) (Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020). Governments have also encouraged farmers not to over harvest, to practice customary stockpiling and preserving techniques, community rationing, and to strengthen food stocks (Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020).

Community respondents report local sales of produce and seafood declined due to travel restrictions limiting access to markets and the loss of tourism businesses as a market. Outer islands or more rural villages dependent on trade with other islands (for example, selling fish to buy vegetables, root crops and rice) experienced drops in household resources (Steenbergen et al., 2020). There is also evidence of a reduction in demand compared to pre-COVID levels due to a decline in household resources. Local traders subsequently experienced a reduction in their income, which they used to purchase their own food. For example:

> *This is evident during local market days. Almost every food item (including fish) brought to markets during market days are not sold. Before COVID-19, people still have at least money to spend. Now it seems as if nobody is selling or buying (Wairiu, Iese, Walelenea, et al., 2020), Fiji.*

> *Yesterday, I sent my wife to the market to sell our cabbage. We sell for $10.00 and because of fear of wastage, we later reduced the price for $5.00 but still we cannot sell them all. In the evening I saw the truck load of cabbage coming back unsold and I was disappointed. It is very disheartening for us farmers as we would have to meet the transport cost for nothing. It is a costly loss for us and all our effort. We really need a way to store our cabbage and avoid wastage in the future (Wairiu, Iese, Walelenea, et al., 2020), Solomon Islands.*

However, this was not a uniform experience. Some villages reported an increase in internal trade in fish, with four villages in Vanuatu attributing this to an increase in returning youth catching and selling reef fish and one attributing it to imported shop supplies running out (Steenbergen et al., 2020).

Communities in FSM, PNG, Vanuatu and Tuvalu also reported community stores running low on supplies of imported foods, and limited relief reaching outer islands in Vanuatu.

> *Most of these villages at this time of the year it is dry season so they rely on store goods. But due to the SOE (state of emergency) lockdown, the transport of goods into the villages has been limited (LMMA Network, PNGCLMA, et al., 2020), PNG.*

There were reports that community shop-keepers on Vanuatu's secondary and outer islands were further affected by stock not arriving because it meant they could not sell the supplies and re-pay the loans they took for ordering the stock (Steenbergen et al., 2020).

3.5.2. Local responses focused on gardening and fishing

Pacific communities responded to changes in food availability and accessibility by increasing local food production – through agriculture and/or fishing.

Family gardens became an important food source in many communities, although those in urban areas had less land to use and in some communities there was a lack of suitable land for gardening. In some places, farmers opened up access to land for the benefit of the whole community. A common experience across communities is that gardening as a response to COVID was a communal strategy for pooling time and resources to enhance food production (Eriksson et al., 2020).

Biggest role for us women is to make sure there is enough food by gardening and taro patching (LMMA Network, KCSO, et al., 2020), FSM.

People are busy with making gardens. People that didn't used to make gardens are now cleaning the bush to make gardens. They are afraid COVID-19 will impact their food security if Solomon Islands has any confirmed cases in the future (LMMA Network & WCS-SI, 2020), Solomon Islands.

In the village the spirit of working together has come out again strong, more solesolevaki where families look out for each other by farming together and supporting each other with the available resources from the farms. Fathers spend more hours as well in the farms now and are extending their farmlands as well (Wairiu, Iese, Navunicagu, et al., 2020), Fiji.

Many communities also reported returning to traditional crops such as cassava, potato, banana, taro as a strategy to ensure food supply. Although some people also noted that these take months to grow before being able to be harvested.

We are going back to local food, like bananas, potatoes and cassava. We were already doing that, but more and more people are eating more local food apart from rice (Eriksson et al., 2020), Solomon Islands.

So many families are now farming as a means for survival and with that if we have issues at home where we run short of processed foods, we would always opt for our farm for root crops and vegetables (Wairiu, Iese, Navunicagu, et al., 2020), Fiji.

Villages with fishing resources experienced increased fishing, although this was not necessarily widespread. For example, people from only half the villages in a Solomon Islands study reported an increase in fishing (Eriksson et al., 2020). In Tuvalu, 65% of respondents reported an increase in numbers of people fishing (reference). Others reported a limited availability of fuel for motorised fishing due to restrictions on trade impacted fishing. However, it is clear that fishing was an immediate response to lack of food or money in many places, including as a response to stores running out of stock.

Due to Covid-19 restrictions, there is less food being sold at the market, the price of seafood being sold at the local market has increased, so many people tend to find daily food from the ocean (LMMA Network & VEPA, 2020), Tonga.

Now it's hard to source income, so a lot more women are going to get nama (sea grapes) to earn a living. Even children are joining the elderly (LMMA Network, CI, et al., 2020), Fiji.

People tend to fish when they do not earn enough money to buy tinned fish due to the cash flow problem (Eriksson et al., 2020), Solomon Islands.

There is mixed evidence about people returning to villages and fishing as a source of food or cash. In some villages, there was increased fishing activity as a result of lack of household resources.

Most who came back from Honiara, the only livelihood that sustains them is fishing. If they are to wait for their gardens to [be] ready, they will starve to death. Therefore, most of them resort to fishing as the immediate means to tackle shortage of food. Catches were sold, and the money earned is spent on local food or other imported basic food items. (Eriksson et al., 2020), Solomon Islands.

> *Ever since COVID hit, prices on pelagic fish has gone up so more people are buying reef fish, causing locals to [go] night spearfishing more often (LMMA Network & PNI-LMMA, 2020), FSM.*

This contrasts with both reports of less activity by fishers because people had limited ability to buy their catch, and with those of returnees lacking skills or equipment to fish.

> *Fishing at the moment still remains the same. This is because most people who came back to the village do not own a canoe or even basic fishing gear, so they cannot fish. They are yet to fully adapt to village life* (Eriksson et al., 2020)*, Solomon Islands.*

There were reports that returnees or others inexperienced in fishing undertook activities such as inshore canoe fishing, diving, and gleaning mangroves and reefs close to shore. One author noted this was *"Important for community members who do not have access to fishing gear, such as youths"* (Eriksson et al., 2020). In Vanuatu, there were two instances of people being poisoned from fish due to inexperienced fishermen that subsequently led to a decline in fish availability, as people feared further cases (Steenbergen et al., 2020). In some coastal communities there were reports of newcomers breaking marine management area rules, including of catch size limits, fishing in tabu sites, using banned equipment and illegal methods.

While fishing for consumption may have increased in areas, there was not necessarily a concurrent increase in fish for purchase. This was attributed to declines in trading opportunities, and because the economic impact of COVID-19 on households reduced the demand for buying fish.

3.5.3. The increase in gardening and agricultural activity was supported by local, provincial, and national leadership

Across the Pacific, there has been an increased demand for seeds, planting materials and equipment. Governments have responded by supplying, or selling (in Vanuatu), seeds, seedlings and equipment to: urban and peri-urban households (Fiji, Samoa, Vanuatu, Solomon Islands); local communities (Samoa); rural households (Vanuatu); corporate employees who have lost their jobs (Fiji); and farmers and larger-scale agricultural operators (Fiji, Tonga, Solomon Islands) (Pacific Island Farmer Organisations Network, 2020; Robins et al., 2020; Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020). In the Solomon Islands, provincial premiers called for 100-day planting periods, and there are reports of national governments and village chiefs designating land for farming, and land clearing to re-establish food gardens (Eriksson et al., 2020; Pacific Island Farmer Organisations Network, 2020; Robins et al., 2020).

Disruptions to supply networks meant some areas did not receive sufficient seeds and equipment. There were reports of seeds running out in Samoa due to transport restrictions, and Kiribati and Tuvalu have reported higher demand for products due to pre-existing supply restraints (Robins et al., 2020). Farmers' organisations noted the supply of seeds and equipment being affected by the reliance on sea freight rather than flights. Some farmers also bartered seedlings and plants (Pacific Island Farmer Organisations Network, 2020).

Governments also implemented a range of other measures to support the agriculture industry, including reducing or deferring import tariffs and facilitating access to finance; although Pacific farmers organisations report difficulty accessing finance and obtaining bank loans, and a burden of organising this with banks on top of coping with COVID-19 and recovering from TC Harold (Pacific Island Farmer Organisations Network, 2020; Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020).

3.5.4. The decline in markets and logistical challenges impacted the fishing industry

There was less evidence about government responses to support community-level fishing activities. In Vanuatu, the Fisheries Department promoted back-yard fish farms and supplied Tilapia fingerlings and feed in two urban areas (Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020). A range of other countries implemented stimulus packages that supported businesses, including those involved in fishing.

The most significant impact of COVID-19 on the oceanic fishing sector is from the disruption due to port closures, and travel restrictions reducing exports and providing logistical challenges in obtaining crew, and reductions in tuna market demand from the United States and Japan (Arahan et al., 2020; International Organization for Migration Fiji, 2020). For health and safety reasons, observers were taken off fishing vessels, meaning ongoing monitoring has been affected (Forum Fisheries Committee, 2020a). There have had significant impact on tuna fisheries and other fisheries operations and related industries (Forum Fisheries Committee, 2020b). Some vessels that supply fresh markets have ceased operations due to the difficulties or expense of accessing markets, although those that supply international markets are less affected (Forum Fisheries Committee, 2020b). The Solomon Islands had 42% reduction in fish catch, and Tonga a 22% decline of marine exports in April 2020 (Doan et al., 2020).

A potential major impact on fisheries is the reduction in purse seine fishing licenses (Forum Fisheries Committee, 2020b). Fishing licence revenues have been an important source of government revenue for Kiribati, Tuvalu, Nauru, FSM, Marshall Islands, and Palau, and this sector employs both local and Pacific migrant workers as crew and observers (Howes & Surandiran, 2020a; World Bank, 2020). The FFA suggests that COVID-19 will have an influence on future demand and expectations for Vessel Day Scheme days, but it will not be the only consideration. Further, evidence from Asia indicates there is no evidence for a reduction in purse seine fishing as a result of COVID-19 (Forum Fisheries Committee, 2020b).

3.5.5. Households experienced food insecurity

Households have experienced loss of income through loss of employment, reduced hours, and restrictions on the ability to sell and trade produce and other goods in both formal and informal markets. Food prices were reported to increase in some communities where there were temporary shortages, including for canned and fresh fish and rice, but not in other communities. Although some governments took action to monitor and control prices, especially of staple foods (Aelbers et al., 2020a; Eriksson et al., 2020; Sher(Aelbers et al., 2020b; Eriksson et al., 2020; Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020), not all community respondents thought they were effective, particularly in more remote villages (Steenbergen et al., 2020).

Evidence from community respondents indicates that many have been coping in the short term (research published May to August 2020). The majority of respondents in coastal communities in Fiji, FSM, and Tonga reported having enough or more than enough food available to them, although up to a quarter of respondents in these communities also reported not having enough food available. Communities experiencing increased migration and previous damage to crops, whether from low or high rainfall or natural disaster damage, reported growing or existing food security issues. Some communities in Vanuatu reported sufficient food, “but only because they had access to government relief support” (in response to TC Harold) (Steenbergen et al., 2020). In Tuvalu, migration and disruption to shipping were attributed to the majority of respondents (70%) reporting not enough food (reference).

Some people reported concern over food resources running out, and they attributed this to limited flights and shipping or travel restrictions, returning villagers, and reliance on gardens as limiting overall food supply.

> *At the moment, there is still enough food. But if this situation gets worse and the number of people returning to the village continues to increase, food will not be enough. The supply of food from existing gardens now is at maximum. If harvesting increases further, overharvesting will occur, meaning families will go hungry in the weeks to come.* (Eriksson et al., 2020)*, Solomon Islands.*

Community respondents report various methods of making food last, including eating less, skipping meals, and bartering different types of food. People also reported changing the quality and quantity of purchased foods (Eriksson et al., 2020; Wairiu, Iese, Navunicagu, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020). In Vanuatu, some communities and families decided to minimise harvesting – "*taking just enough to satisfy their main meals*". (Eriksson et al., 2020).

General population surveys in the Solomon Islands and PNG are consistent with community reports. The PNG SEIA report showed over half of households decreased both the quality and quantity of food consumed significantly (30%) or somewhat (28%), with greater numbers of nuclear families affected, likely in response to returned family members (e.g. students) (United Nations Development Programme, 2020). The majority of survey respondents in the Solomon Islands (70%) and approximately half (47%) in PNG reported using food coping strategies such as eating less, being hungry but not eating, not eating for an entire day, or running out of food completely – although a lack of baseline data means the direct influence of COVID-19 on these figures cannot be estimated. Urban respondents in PNG use these strategies more frequently than those in rural areas, and larger households in the Solomon Islands had greater incidence of using these coping strategies (Himelein, Waldersee, & Wirapati, 2020; Himelein, Waldersee, Wirapati, et al., 2020).

There is also evidence that food sources and dietary patterns have shifted. In the Solomon Islands, there was a greater consumption of fresh produce, especially roots, tubers and plantains, fish and seafood, food from the jungle, and a decline in consumption of purchased foods, where people had access to these (Wairiu, Iese, Navunicagu, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020). Dietary diversity scores in both Fiji and the Solomon Islands were lower during COVID-19 than in 2019 or 2018, indicating reliance on a smaller range of foods and difficulty achieving adequate micronutrient intake.

Formal assessments of household food security status have been conducted in 2020 using the FAO Food Insecurity Experience Scale (FIES) in selected Fiji and Solomon Islands communities, and in the World Food Programme's mobile Vulnerability Analysis and Mapping (mVAM) general population surveys in Fiji, Tonga, and Samoa. The mVAM methodology produced national estimates of food insecure households, although the definition of food insecurity was not provided.

Households that are moderately or severely food insecure[17]	Fiji 3.7%	Samoa 7%	Tonga 1%

In Fiji, food insecurity was greater in urban (5.9%) than rural (2.5%) households, and in households with persons with disabilities (6.9%). Overall, food insecurity reduced between

[17] https://fscluster.org/pacific/news/wfp-mvam-pacific-platform-dashboard

September and November, but rose for urban households. In all three countries a greater proportion of households with children under the age of four years resorted to coping strategies under emergency, crisis or stress conditions than households without children under four years (World Food Programme, n.d.-b, n.d.-c; World Food Programme et al., n.d.).

These national data clearly differ from the FIES estimates from selected communities, where 10-16% of Fijian households across nine communities reported severe food insecurity (defined as not eating when hungry or for a whole day) (Wairiu, Iese, Navunicagu, et al., 2020), and 26-43% of households across communities in the Solomon Islands reported the same, with greater food insecurity in peri-urban or urban areas (Wairiu, Iese, Walelenea, et al., 2020). These communities may be more vulnerable than others.

3.5.6. Traditional social and cultural behaviours have provided resilience

Pacific communities demonstrated resilience by working together and sharing resources to care for their families and communities, and using local, traditional methods of ensuring food security.

The importance of social connections and social capital are evident. Some communities collectively organised food resources, for example in distributing, purchasing, or producing food.

> *There is enough food for everyone because we are organized in the community, and we still use cultural practices where families look after each other, especially when someone returns to the village.* (Eriksson et al., 2020)*, Solomon Islands.*

Other people report caring for their wider families or communities by direct food provision. This was important for vulnerable family members such as widows, and in areas that did not benefit from food aid initiatives.

> *There were many occasions when our household does not have much to eat, on one occasion, we were fed by other members of our community* (Wairiu, Iese, Walelenea, et al., 2020)*, Solomon Islands*.

People noted that these activities also benefitted strengthened relationships within families. However, there was tension reported in some areas in the form of concern about food shortages, reports of thefts of food and cash crops and land disputes in Samoa, Solomon Islands, and Vanuatu (Robins et al., 2020).

Other forms of traditional knowledge providing resilience include evidence of increased bartering in both rural and urban communities as a coping mechanism to the changed food supply, and in the harvesting and storing food.

3.6. What were the impacts of COVID-19 on natural resources and biodiversity?

As discussed in the food systems section, there was some evidence of impacts of COVID-19 on coastal fisheries resources management, largely as a result of increased fishing for food and because people returned to their home villages, putting pressure on community resources. Evidence of impacts of increased fishing on fishing resources and biodiversity may be expected in the longer term.

There was one report of concerns over water security. In peri-urban communities in the Solomon Islands, where water demand rose as people returned to their villages and where people rely on mountain streams, the time taken to fill drinking water bottles from a local stream increased for 40 to 50 minutes to almost 3 hours. This meant less time for other family and household commitment (Wairiu, Iese, Walelenea, et al., 2020).

There was no evidence of impacts of COVID-19 on other natural resources or biodiversity. There was no other evidence in the included items of the impacts of re-direction of resources away from protecting or enhancing natural resources or biodiversity.

3.7. What were the impacts of COVID-19 on education?

As part of the preparedness and response for COVID-19, most PICTs closed schools, shifted term breaks and extended or implemented indefinite breaks (United Nations Educational, Scientific and Cultural Organization, 2020) Some schools introduced social distancing, hand washing facilities, morning and evening classes, and alternating school days for exam and non-exam classes (Wairiu, Iese, Walelenea, et al., 2020).

3.7.1. Learning from home has been difficult

Although teachers have worked to shift learning to home either online, by radio, tv or using paper resources, evidence suggests there has been substantial disruption for some students and communities. Several sources of evidence suggest that national curricular were probably not completed during school closures, with estimates of approximately 20-50% of the curriculum completed by primary school students, and 20% for pre-primary and secondary education students (United Nations Pacific, 2020d). Community respondents report that learning resources weren't available for use immediately, some families couldn't travel to pick up materials, teachers were unable to assist all students, and some parents had difficulty helping their children because the curriculum was very different to what they were used to (Wairiu, Iese, Navunicagu, et al., 2020). One father commented that home schooling was a disadvantage for parents like him because he was not educated himself (Wairiu, Iese, Walelenea, et al., 2020). Access to online learning was limited for students in areas with poor telecommunications infrastructure or for whom accessing devices was unaffordable, although in the Solomon Islands free internet was provided for tertiary study (Australian Aid & Pacific Women, 2020; Cowley, 2020; Wairiu, Iese, Walelenea, et al., 2020).

3.7.2. Many students have been disengaged from learning

Students found it difficult to learn without face-to-face interaction or because of disruptions in the household (Cowley, 2020). Some students lost interest in studying and became bored and distracted (Wairiu, Iese, Navunicagu, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020). Some were stressed and anxious about school performance (Australian Aid & Pacific Women, 2020). Parents found it difficult supervising children during the day, and for some it meant less time working in the home or garden (Wairiu, Iese, Walelenea, et al., 2020). Many students helped families with farming and fishing and other chores. Some parents were relieved when schools re-opened because they could be confident their children were learning at school "as opposed to loitering around the community" (Wairiu, Iese, Navunicagu, et al., 2020).

This was not a universal experience. Some parents were able to take the time they had with their children at home to connect with them and spend time with them (Huffer, 2020b; Wairiu, Iese, Navunicagu, et al., 2020).

3.7.3. Returning to school has been difficult for some

Some families experiencing financial stress are considering whether they can afford to send their children back to school, or have already decided they cannot (Cowley, 2020; Himelein, Waldersee, & Wirapati, 2020; Wairiu, Iese, Walelenea, et al., 2020). In PNG, more than half the surveyed heads of households with children reported reducing the number of children attending school (Himelein, Waldersee, & Wirapati, 2020). Some parents who send their children long distances to school, for example in Tuvalu, are concerned their children may not be able to return home if another outbreak occurs (Aelbers et al., 2020b). Withdrawal from education has a range of adverse impacts on children, including lack of social contact, loss of school meals, and potential long-term impacts on poverty and long-term human capital development (Himelein, Waldersee, & Wirapati, 2020; United Nations Educational, Scientific and Cultural Organization, 2020). School attendance has been strongly impacted since March 2020.

A number of governments or schools introduced measures that helped students return. These measures included allowing students to go back to school without strict regulations on uniforms (which had become tight after so many weeks at home), subsidised bus fares, and school fee subsidies in Cook Islands, Kiribati, Samoa, Vanuatu, Fiji, and the Solomon Islands (Aelbers et al., 2020b; Wairiu, Iese, Navunicagu, et al., 2020; Wairiu, Iese, Walelenea, et al., 2020).

3.7.4. Girls have been disadvantaged by school closures

The evidence indicates that girls were disadvantaged by the school closures. In particular, girls were under pressure to undertake domestic duties and childcare instead of schoolwork, in addition to being less able to access online learning options under normal conditions (Australian Aid & Pacific Women, 2020; Cowley, 2020; United Nations Educational, Scientific and Cultural Organization, 2020). A small survey of 21 girls aged 14 to 19 years in Fiji, PNG, Solomon Islands, and Vanuatu reported girls not having enough time or support for their studies, exam pressure, pressure to do domestic and caregiving work, missing their friends and experiencing loneliness and anxiety (Australian Aid & Pacific Women, 2020). Evidence from PNG, where families may reduce the number of children attending school as a coping strategy for financial stress, suggests that girls are more likely to be withdrawn from school for financial reasons than boys (Himelein, Waldersee, & Wirapati, 2020). This may exacerbate the gender gap in education (Himelein, Waldersee, & Wirapati, 2020).

3.8. What were the impacts of COVID-19 on social and cultural systems?

Pacific Island countries and territories have strong social and cultural systems that bind people together, and provide cohesion, support and resilience (Huffer, 2020a). There were two major sources of evidence of social and cultural impacts, both written by the same author and covering

10 PICTs.[18] A number of other sources of evidence also reference how social and cultural traditions provided cohesion and resilience during COVID-19.

3.8.1. Social and cultural systems were disrupted but remain strong

During the COVID-19 restrictions and social distancing requirements, all PICTs experienced disruption to social and cultural life. Cultural celebrations, church services, family gatherings, funerals, traditional cultural ceremonies (for example *hifi ulu* (hair cutting) and *huki teliga* (ear-piercing) ceremonies in Niue) and sporting events were postponed or cancelled (Huffer, 2020b). People were unable to be with their families, including family members from overseas. Not attending church was difficult for many due to the importance of religion in social and cultural life. There were anecdotal reports of people struggling with "loneliness and anxiety" in the Cook Islands, and the Ministry of Health, alongside business organisations, ran stress and anxiety workshops (Huffer, 2020b). Similarly, in Fiji, there were anecdotal reports of negative impacts on mental health as a result of the ban on social gathering (Cowley, 2020).

There were no reports of major social disruption or conflict, although minor instances of tension over food resources, land, and rules have been reported (Himelein, Waldersee, & Wirapati, 2020; Huffer, 2020b; Robins et al., 2020). There were anecdotal reports of examples of confusion, fear and panic at social distancing messages in PNG, which has been attributed to incidents of stigmatisation and rejection of some people (for example, positive cases among those returning home) (Huffer, 2020b). The two general population phone surveys reported a mix of positive and negative impacts on social cohesion as a result of COVID-19. In PNG, 14% of respondents reported deteriorations in trust and social relations and 31% reported improvements. Approximately a quarter of respondents reported increases in theft and drug and alcohol use, but the same reported improvements in these. There were no consistent patterns in these overall or between rural and urban communities.

There were reports of difficulty social distancing in overcrowded housing areas, and of people not always following social distancing rules and attending key social and cultural events in some countries (Huffer, 2020b). Further, some people felt the distancing rules were not compatible with feeling culturally safe, and there was tension between COVID-19 rules and social and cultural traditions and expectations. Families are traditionally used to pooling resources and operating communally, thus providing connections and 'safety networks'. These communal activities also extend to working in the gardens, fishing, weaving and other activities that provide a livelihood (Huffer, 2020a).

There were also reports that some people enjoyed their time together as a family, and that it enabled them to participate in traditional activities such as learning about their history and heritage through story-telling (Huffer, 2020a). They also felt closer as a result of working together to farm or fish (United Nations Pacific, n.d.).

There were examples in the evidence of communities finding innovative ways to care for others and maintaining social connections. Section 3.9.3 below provides some examples of initiatives for women. In Fijian urban settlements, youth groups helped to look after older people, and also in Fiji a social media site organised trading of services and goods in response to job losses caused by COVID-19 (United Nations Pacific, n.d.). In the Autonomous Region of Bougainville, Bougainville

[18] These PICTs were: Cook Islands, FSM, Kiribati, Nauru, Niue, PNG, Samoa, Solomon Islands, Tokelau, and Vanuatu.

Youth in Agriculture helped farmers sell their food and provide support to farmers using text messages (Robins et al., 2020).

Overall, the evidence provides many examples of community cohesion being maintained, demonstrated through caring for others, customary sharing of food and other resources, working together, organising community events, sharing information, traditional crafting skills, and maintaining ties to families, church and other organisations (Huffer, 2020b).

There was some anecdotal evidence that some people continued life largely unchanged, apart from the business restrictions. As noted in section 3.3.4, these people were those with connections to land, other resources and traditional ways of living. They were able to continue their traditional ceremonies, subsistence food production and bartering products to maintain their livelihoods (Huffer, 2020b).

3.8.2. The formal cultural sector was disrupted

In the formal culture sector, budget cuts, closures of cultural institutions such as libraries, museums, national archives, and historical sites, and postponement of exhibitions, cultural performances, workshops, exhibitions, and festivals have had an impact on the social and cultural lives of Pacific Island people. Some institutions used the time to undertake work not normally possible, e.g., maintenance and digitisation, and many organisations and individuals found innovative ways of connecting and collaboration throughout the COVID-19 restrictions. The loss of tourists and decline in consumer demand have had an adverse effect on the livelihoods of artisans and artists selling their work (Huffer, 2020b; United Nations Pacific, 2020d). Artists have also missed out on overseas performance opportunities.

Many Pacific Island communities, local NGOs, and other groups have responded by establishing market days for arts and crafts, set up organisations to support artists in national recovery efforts, have organised workshops for teaching traditional crafts, providing business support for new ways of working and for MSMEs to try new business initiatives, and other activities that enable people to make a living (Huffer, 2020a, 2020b).

3.9. What were the impacts of COVID-19 on women?

Women are at greater risk of experiencing adverse impacts of COVID-19 because, at a population level, women have more vulnerable employment, fewer resources, are expected to undertake more unpaid care work, and face barriers to accessing information, services and support (Government of Vanuatu, 2020; United Nations, 2020; Unknown, 2020, p. 2). There were few empirical sources of evidence describing gendered impacts of COVID-19, with one gender analysis from Fiji, evidence within food systems, and labour markets reports, comparisons in business monitor reports, and some information in the Vanuatu PDNA reports.

3.9.1. Women working in the informal economy are vulnerable

There was a lack of evidence of empirical impacts on women employed within the informal sector, although they are universally considered to be vulnerable and to have been disproportionally affected. Existing inequalities in the arena of work are also expected to be exacerbated (Arahan et al., 2020).

Women's participation in the economy is highly concentrated in the informal sector (Aelbers et al., 2020b). For example, in the Solomon Islands and Vanuatu 75% of women have informal working arrangements (Aelbers et al., 2020a). Women in the informal sector work predominantly as market vendors and in the agricultural sector (Aelbers et al., 2020a; Cowley, 2020; Robins et al., 2020). In Fiji, 40% of rural women work on farms through the informal economy (Cowley, 2020). Workers in the informal economy are more vulnerable to the impacts of COVID-19 than those in the formal sector because they are excluded from social insurance and other government income protection or support (Arahan et al., 2020). The closure of markets affected women significantly; women working as market vendors and as intermediaries between producers and consumers at markets and stalls, for example as in the Solomon Islands, lost their source of income (Robins et al., 2020).

Women are also more likely to work in professions that cannot be done remotely, such as hospitality, wholesale and retail, putting them at greater risk of job loss during the pandemic (Dahal & Wagle, 2020). In FSM, up to 70% of job losses are expected to be women, and up to a third in the RMI (Aelbers et al., 2020b). There is a lack of evidence for other impacts on women's employment.

3.9.2. Women's businesses were negatively impacted

A July edition of the Pacific Business Monitor reported findings by gender from 134 small and medium-sized businesses. Overall, a higher proportion of female-owned or led businesses (38%) reported diversification in response to COVID-19 compared to 20% of male-led businesses, and 20% reported reducing staff wages compared to 32% of male-led businesses (Fifth Quadrant, 2020a).

A higher proportion of female-owned or led businesses also reported adverse impacts compared to male-led businesses, including:

- Experiencing a very negative impact from COVID-19 (71% of female-owned/led businesses, compared to 57% for male-owned/led).
- Experiencing a significant decline in revenue (77% of female-owned/led businesses compared to 65% for male-owned/led).
- Temporarily closing their business (41% of female-owned/led businesses, compared to 29% of male-owned/led).
- Less confidence their business will survive (32% of female-owned/led businesses, compared to 25% male-owned/led) (Fifth Quadrant, 2020a).

3.9.3. Initiatives to support women's livelihoods

A range of diverse initiatives have been implemented by communities, NGOs, and other organisations to improve the livelihoods of women in response to the impacts of COVID-19. Examples include:

- Support for women market vendors through UN Women with the introduction of the Safe Market concept, "to ensure women market vendors economic activities continue to support their livelihood" (Sherzad & FAO Sub-Regional office for the Pacific Islands, 2020, p. 8).
- Workshops teaching traditional crafts and other arts to help build shelters, as a source of income, and to foster social connections in Samoa, Tokelau, and FSM (Huffer, 2020b).

- A women's farming group set up a market to sell produce grown following the receipt of gardening tools, seeds and water tanks, with proceeds donated to the Samoa Victim Support Group (Huffer, 2020b).

3.9.4. Women's roles in the household have expanded

Across the Pacific, there is evidence of a greater burden on women in the household. School closures have meant care and supervision of children at home was required. The requirements on their time have increased. Women also had responsibility for sourcing food and preparing meals for additional people returning home to families (Arahan et al., 2020; Robins et al., 2020). The burden of care and expectations of women to fulfil caring roles in the family affect their ability to look after their own needs:

> *The women are the ones that produce and collect the food to feed the families. The women end up eating less because there are more families in the village—women are the ones that will eat last, they will feed visitors and the family first.'* (Robins et al., 2020)*, Solomon Islands.*

3.9.5. There was evidence of increased domestic violence

Gender-based violence is a significant issue in some PICTs, with rates of 64% of women in Fiji experiencing intimate partner violence at least once, 51% in RMI, and 40% in Tonga (Unknown, 2020). Limitations to women's ability to seek support and help during lockdown was estimated to contribute to an increase in domestic violence, and that poorer women and those living in rural areas may be affected most (United Nations Pacific, 2020d). Overall, the evidence suggests that there was increased reporting of domestic violence, although the extent of this is unable to be estimated.

Administration evidence from service delivery providers in Fiji indicates increased domestic violence as a result of COVID-19. There was a significant increase in calls to the National Domestic Violence helpline in March and April 2020. In April, 50% of calls related to COVID-19 and violence "linked directly to the restrictions of movement and economic strains on families" (Unknown, 2020).

The Tongan Women's Crisis Centre reported a 54 percent increase in calls over March 2020.

In the Solomon Islands, women in rural areas were more likely than their peers in urban areas to report a deterioration in domestic violence (Himelein, Waldersee, Wirapati, et al., 2020). Similarly, women living in rural areas of PNG were more likely to report increased physical assault and domestic abuse (Himelein, Waldersee, Wirapati, et al., 2020).

In response, civil society organisations and governments in Fiji, Tonga, RMI, have implemented activities to combat gender-based violence during COVID-19. These include activities such as development of resources and tools and public messaging, continuing to operate prevention and survivor services as essential services, and additional services such as helplines implemented (Unknown, 2020).

3.10. Interaction of COVID-19 with other shocks

Some PICTs, particularly Fiji and Vanuatu, are frequently exposed to risks and adverse effects of natural disasters, including cyclones, droughts, earthquakes, volcanic eruptions, floods and tsunami.[19]

In April 2020, during the early stages of the response to COVID-19, Tropical Cyclone Harold (TC Harold) struck areas of Solomon Islands, Vanuatu, Fiji, and Tonga. TC Harold severely damaged or destroyed gardens, crops, farms, mangroves, and reefs. It also took lives and destroyed houses, businesses, and infrastructure. This section briefly discusses the interaction of impacts from COVID-19 with TC Harold, as an example of how simultaneous or repeated shocks multiply the effects.

3.10.1. Repeated shocks make PICTs vulnerable

Repeated or simultaneous shocks of any type compound the economic, employment, and social impacts of these, particularly for vulnerable groups. Households and businesses lack the resources to withstand repeated shocks. Communities are affected by the loss of resources, including schools, community buildings, wharves, and other infrastructure, and by the loss of people as they move out of the area. Governments lack the resources to repeatedly fund recovery efforts and social protection measures. The economic impact of the combined shocks for Vanuatu and the Solomon Islands has been described as "immense" (Albears July). For example, the combined economic damages and losses from both TC Harold and COVID-19 were estimated at VUV 2.2 billion (Government of Vanuatu, 2020). The long-term economic losses from COVID-19 are expected to exceed this (Aelbers et al., 2020b).

Some groups are more vulnerable than others. For example, people living in informal settlements in Fiji are often located in areas highly vulnerable to climate-related disasters, including TC Harold, and have lower access to basic services and quality housing. This reduced their capacity to adapt to COVID-19 (United Nations Pacific, 2020d). In both Vanuatu and the Solomon Islands, approximately 75% of women are in vulnerable or informal employment, which offers little formal social protection.

3.10.2. COVID-19 made it more difficult to respond to TC Harold

Although PICTs are experienced in managing the impacts of natural disasters, the impacts of TC Harold were magnified as COVID-19 prevention and movement controls meant first responders were not allowed into villages (Aelbers et al., 2020a; Government of Vanuatu, 2020). Both local and overseas aid provision was compromised due to the need to abide by COVID-19 prevention restrictions.

3.10.3. Social safety nets have been compromised by COVID-19

Historically, community social institutions have provided cyclone-shocked regions with social safety nets and have been a source of resilience (Steenbergen et al., 2020). However, these safety nets have been compromised, and personal savings, assistance from family and friends, and remittances from family members abroad or working away from their home village have been

[19] https://www.unicef.org/lac/en/media/20166/file)

impacted (Cowley, 2020; Himelein, Waldersee, & Wirapati, 2020; Himelein, Waldersee, Wirapati, et al., 2020).

Evidence from Vanuatu indicates that access to agriculture or fishing resources, good marine resource management, and communication channels were resilience factors in coastal communities responding to TC Harold and COVID-19 (Steenbergen et al., 2020).

3.10.4. TC Harold amplified the risk of food insecurity

Many households in PICTs turned to gardening for food and as a source of income. In TC Harold-affected parts of Vanuatu, Fiji and the Solomon Islands, agricultural land was flooded, crops and harvests were lost, and water availability was compromised (Aelbers et al., 2020a; Eriksson et al., 2020; Steenbergen et al., 2020). Some areas have reported serious food scarcity (Robins et al., 2020). In Vanuatu, some areas were already compromised due to droughts or poor soil conditions. There was one report from a Fijian coastal community that TC Harold resulted in damage to mangroves that affected availability of crabs (WCS Fiji & LMMA Network, 2020), and the effects of TC Harold on food supply were still being reported in other Fijian coastal communities in August 2020 (LMMA Network, CI, et al., 2020).

These pressures on food production and food security were compounded by pressures on household incomes and economic wellbeing (Government of Vanuatu, 2020; Steenbergen et al., 2020).

4. KNOWLEDGE GAPS

There are a number of gaps identified in the published evidence base, although it is likely that regional and national organisations have more data and information than what was available for inclusion in this synthesis. Some of the identified gaps in knowledge are to be expected in a pandemic, and it is also likely that some of these gaps will be filled with publications in 2021 and subsequent years, as more time elapses in which to see impacts in some focus areas. The focus on reporting evidence of peoples' experiences of COVID-19 in this synthesis also means that different gaps will be identified here than when other types of evidence are considered.

4.1. There are gaps in evidence for some countries and territories

There are differences in what information was available for each PICT. Many of the items included in this synthesis report information about selected PICTs or from a regional perspective with little country-specific evidence. There was no published empirical evidence for five countries and territories: America Samoa, Guam, Northern Mariana Islands, Pitcairn Islands, and Wallis and Futuna. There was a lack of evidence identified for the French overseas collectives of French Polynesia and New Caledonia. There is also a lack of country- or territory-specific evidence for those with smaller populations – Tokelau, Nauru, Palau, Marshall Islands, Kiribati and FSM.

Although there were some common experiences of COVID-19 across the Pacific region, there were other impacts that differed by country and territory, as a result of country and population characteristics and geographic location. It is also important to note that country situations can change rapidly.

4.2. There are significant knowledge gaps about the impacts on vulnerable groups

Vulnerable groups, including women, young people, those living with disabilities, older people, those living in rural, remote or disadvantaged communities, migrant workers, and those living in urban areas with limited resources, such as poor and informal settlement communities, are more susceptible to multiple adverse impacts of COVID-19. These groups are vulnerable because they are disproportionately represented among people living in poverty, are more likely to be employed in the informal sector, with less access to resources and social protection schemes, experience barriers in accessing health and other services, and are more likely to experience multiple disadvantage (Arahan et al., 2020; Cowley, 2020; Government of Vanuatu, 2020; Robins et al., 2020). For example, households headed by women or including those living with disabilities reported using a greater number of coping strategies in response to household stress than other households (World Food Programme, n.d.-a).

Overall, there was very limited quantitative or qualitative evidence about these groups and how they have experienced COVID-19 differently to other groups, including:

- The effects of job losses and reduced household income, including effects on health and social opportunities, and in the context of financial dependence on other family members. This is particularly relevant to youth and women, who are over-represented in the informal employment sector.

- The impact of COVID-19 on access to services and other sources of support within the context of restricted movements and lack of resources.
- How the burden of greater care and home isolation has affected women and girls' family relationships and livelihoods.
- How any home isolation and quarantine requirements have affected vulnerable groups.
- The health, education and employment impacts on those living with a disability.
- The impacts of food insecurity in older people, children, women and those living with a disability.

  The effects of interruptions in education, including on enrolment and achievement levels, particularly in those children and young people with existing disadvantages.
- The effects of the pandemic on domestic violence and sexual abuse.
- What resilience factors might contribute to better coping in different situations.

4.3. Health system impacts are unknown

Heath systems, as a prominent part of all PICT's COVID-19 preparation, prevention, and response activities, have been significantly involved in national and regional responses.

The gaps in knowledge about the impacts on health systems reflects the early publication date of the Pillar 1 SEIA reports (May-June 2020). At that stage, although health systems across the Pacific had financed and provided the workforce for the initial COVID-19 response and preparedness activities, there was considerable uncertainty over what resources might be needed in the future and how this might change if further cases were identified. It is also recognised that health systems resources will be required for the logistically challenging task of safely and quickly delivering a COVID-19 vaccination to all Pacific Islanders.[20]

There was also a lack of empirical evidence of the effects of COVID-19 on health systems management and service delivery, and of the implications of deferred healthcare to the health system and to individuals in terms of disease progression, complications etc. Although evidence of the impact of COVID-19 on health outcomes would not be expected to be seen in 2020, these may become important to measure in the future.

4.4. There are key gaps in some focus areas

The included items of evidence lacked quantitative data that would help build a more complete understanding of the focus area or topic.

- Information is frequently presented for total population and lacks disaggregation by age and sex, geographical location, and by vulnerable groups.
- In the available evidence there were gaps in labour market information, including un/employment rates and changes, size and characteristics of the informal sector, effects of labour mobility, and information on remittances.

[20] At time of writing, America Samoa, FSM, Guam, Marshall Islands, Northern Mariana Islands, New Caledonia, French Polynesia, Palau, and Wallis and Futuna had administered vaccinations. https://www.spc.int/updates/blog/2021/03/covid-19-pacific-community-updates

- Despite the large section on businesses, this is predominantly from one source, and includes only small and medium businesses. There is a lack of representative business data providing an overview of impacts on all types of business, including micro-businesses.
- In the education sector, there were gaps including enrolments for different levels of schooling up to tertiary level, and changes in these, and groups excluded from education.
- There is no evidence available about the empirical impacts of government actions, such as implementing economic support, social protection, and recovery measures.

More items of original qualitative research would contribute towards elevating voices of Pacific peoples' experiences across all focus areas and PICTs.

4.5. There is largely an absence of information in some focus areas

There was very limited or no published evidence available for inclusion about the impacts of COVID-19 on the following focus areas:

- Parliaments and other governance bodies, with the exception of community governance systems.
- The judiciary and the court system, including the impacts on those going through the justice system.
- How the state of emergency and other measures impacted on human rights, including discrimination, access to care, freedom of expression and movement, and protection from economic and social impacts of COVID-19.
- Other aspects of the progression or limitation on human rights.
- The tertiary education sector, or students involved in tertiary study.

Across all focus areas there was also a lack of evidence on:

- The impact of stopping or deferring programmes or activities as a result of national state of emergencies and diversion of resources. This includes in sectors such as health and education, including sending people overseas to access services or programmes, government spending on social sector programmes, management of agricultural and fishing resources, protecting the natural environment, and climate change.

5. CONCLUSIONS

5.1. The economic impacts of COVID-19 have been felt throughout all PICTs and extend through all focus areas

The evidence consistently shows that people experienced significant economic impacts as a result of COVID-19. The national-level evidence for disrupted trade, the collapse of tourism, job losses, and reduced economic activity was reported across household types, sectors, and geographies, and was reflected in peoples' own reports of their experiences.

While PICT governments and regional organisations have acted to minimise impacts by funding social protection, business support and recovery measures, there are still challenges ahead, particularly if community cases of COVID-19 continue into 2021. There were no pieces of evidence that compared or linked social protection measures implemented with peoples' experiences in the community. A report from New Caledonia noted benefits for wage earners have helped boost consumer spending, but also the long-term impacts of restrictions and uncertainty over the future poses risks to the economy (Ardoino & Fagnot, 2020). Despite various government support measures, prolonged economic losses and difficulties meeting basic needs for some vulnerable groups is expected to be too great to manage for many PICTs, and the ADB predicts greater poverty hardship in the years to come (Aelbers et al., 2020b; Arahan et al., 2020).

The evidence base was too diverse to be able to draw conclusions about different levels of impacts in different groups. There were no clear rural-urban differences, although some evidence indicated people living in urban areas with few resources were badly affected and those in rural areas were affected by disruptions to food supply chains and production challenges. Women were expected to be adversely affected, largely because of their role in the informal economy and as carers, but there was generally a lack of empirical evidence. Workers in travel or tourism-related industries especially and those in services, manufacturing and in informal, casual or contracting work, were affected, with widespread job losses. Workers in these industries may take more time to recover. Essential workers in health, education, defence, social sector, and public administration, or other highly skilled workers were considered to be at lower risk of job losses (Arahan et al., 2020).

5.2. Those with access to agricultural and fishing resources may have been initially protected, but a large-scale shift to subsistence living may have long term impacts

The evidence suggested that rural communities and others with access to land and sea resources (for example, those who returned to their villages after losing jobs) may have managed to cope with the economic shocks in the early stages of the pandemic. Noticeably, the majority of coastal communities reported few major concerns over immediate food security, although many reported concerns for the future. Similarly, some in rural communities were able adapt to find other sources of income or live without considerable disruption. A return to subsistence farming and fishing may have provided a short-term respite from formal sector income losses for some.

However, people across the region rely on income to operate in a cash-based economy to purchase necessities and access services. The shift to low-yield, labour-intensive agricultural activities is a

step backwards for many households (Arahan). If these trends are large-scale and ongoing, there may be significant implications for poverty levels and subsequent impacts in terms of human development (Arahan).

5.3. There are indications of vulnerabilities and resilience

This report describes a range of impacts of COVID-19 experienced in 2020 across a number of PICTs Overall, the evidence is insufficient to draw conclusions about what factors increase the vulnerability and resilience of Pacific communities. A major reason for this is the lack of evidence about vulnerable population groups, a lack of evidence in some focus areas, and lack of longer-term impacts.

However, several factors have emerged as factors that make Pacific communities vulnerable to the impacts of COVID-19:

- Formal government and informal community institutions that provide social protection and a social "safety net" have been insufficient to cope with the economic and social impacts of COVID-19.
- Food systems were shown to be vulnerable, with all activities in the system including production, processing, availability and transportation of inputs, distribution and storage of foods, and wholesale and marketing being vulnerable to the direct effects of COVID-19 or the impacts from COVID-related measures. PICTs or islands within countries and territories that relied on trade or were import-dependent were very vulnerable. People were also vulnerable where existing crops and harvests were damaged as a result of natural or other shocks.
- Those who were already vulnerable through lack of resources, reliance on remittances, food insecurity, living in urban settlements, or facing barriers to information, support and services may have been impacted the most.
- PICTs with a heavy reliance on tourism were particularly affected.

There is also some evidence for factors that provide resilience:

- Maintaining cultural practices and values and community social institutions, including caring for others in the community, provided support and resilience. This was seen in pooling family or community resources, the production and distribution of food, and in other activities that provide a livelihood.
- Community-level governance structures in rural and urban areas implemented government measures, managed local impacts, and managed various resources, providing direction and support for many.
- Local knowledge and systems of food production, harvesting and storage was important.
- Having access to food resources, either through access to land for gardening or the sea for fishing may be a major source of resilience for many Pacific communities.

5.4. Progress on achieving Sustainable Development Goals and climate change targets may be affected

ADB and UN SEIA authors consider that the long term impacts of COVID-19 will influence PICTs' ability to progress development outcomes and achieve all the Sustainable Development Goals (SDGs) (Aelbers et al., 2020b; United Nations Pacific, 2020d). The economic impacts of COVID-19 have been widespread and far-reaching, affecting all sectors of society. Donors have multiple, competing demands (Aelbers et al., 2020b). PICTs have also had to re-allocate resources to support social protection and recovery measures and are under financial pressure. The ability to fund and progress action to achieve SDGs and climate change goals may be impacted.

6. STRENGTHS AND LIMITATIONS

The involvement of SPC and the project Reference Group and the extensive search for published literature and databases during Phase 1 is a strength of this research because it increases the likelihood that all relevant items were identified and viewed for inclusion or exclusion. Many of the items included in the synthesis originated from information from the SPC and the Reference Group. This resulted in a relatively comprehensive evidence base and included a wide range of sources.

However, the large number of relevant organisations working across all the PICTs meant that some relevant evidence was unlikely to have been identified through the grey literature search that was focused on SPC CROP agency partners' websites. Further, evidence could only be included where it was published; it is expected that national and regional government and non-government organisations hold additional unpublished data and research. Where information about sources of evidence was reported in the media or news sections of organisational websites, this evidence was only included if the original empirical research source could be located. In many cases, this was not possible. Similarly, media reporting and news items were excluded from the literature search in Phase 1 because the quality of the information cannot be determined. This may have resulted in some evidence about peoples' experiences of COVID-19 impacts in the community being excluded.

The analytical approach focused on using qualitative pieces of evidence that enabled peoples' voices to emerge from the evidence and holding it up against both qualitative and quantitative evidence from a national or regional level. The inclusive approach to selecting evidence for synthesis meant that we analysed a range of types of research, across PICTs and population groups. These factors mean this analysis provides a unique perspective, adding knowledge about what is happening in peoples' lives, in households and their communities.

The main limitation to this analysis is that it reflects only those impacts reported in 2020 that could be attributed to COVID-19. Overall, these reflect the impacts as a result of the earlier stages of the pandemic and country state of emergency restrictions. The impacts described in this report may have been amplified or minimised in the subsequent months. It is also expected that the impacts of various recovery measures implemented in different countries will take time to see effect.

Although the analysis identifies impacts commonly reported across PICTs, there is very little evidence available for some PICTs and so it is unknown whether these countries experienced similar impacts or are similarly affected. Finally, because of the heterogeneity of the evidence sources, the themes identified under each focus area will not necessarily be representative across all populations and sectors.

7. APPENDICES

7.1. Appendix A: Phase 1 inclusion and exclusion criteria

The criteria below were used to identify relevant items of evidence for the Phase 1 literature scan. As discussed in section 3.2, these items were then assessed for inclusion in the Phase 2 analysis, based on if they:

- were published in 2020 (up to 31 December 2020),
- included empirical evidence of impacts of COVID-19 in any PICT or across the region,
- were assessed to be of good quality.[21]

Rationale for inclusion in Phase 1

Recovery / Response	Documents relating to the national or regional response to COVID-19 and it's impacts, EXLCUDING technical responses (e.g., distribution of PPE gear, funding of health services)
Impacts in the Pacific or any PICT	Needs assessments and impacts analyses, including reports, webpages, data, and short analyses
Context	Policy briefs, PIF documentation, other overview papers about a topic that might help A+C understand the context and frame our analysis
TC Harold impact	Documents focusing on the impacts or recovery from Tropical Cyclone Harold, and as they relate to the impacts of COVID-19

Rationale for exclusion in Phase 1

Superseded by subsequent document	Where draft and final documents have been included, we have excluded drafts. Where subsequent documents have been written (e.g., brief rapid assessments and final assessments), we have excluded earlier versions
Technical aspects of the response	Guidance on how to use PPE gear, repatriation, processes and protocols for customs, transportation, taking samples, etc. Guidelines or advice for living in context of COVID-19 for to population groups, e.g., lactating women, young children
Lacks Pacific content	Includes UN, OECD, and other reports with no reference to the Pacific as a region, or individual Pacific Island countries or territories.

[21] Quality was assessed during Phase 1 using dimensions of authority, accuracy, and significance. See the Phase 1 Situation Report for more detail.

Not in response to COVID-19	Strategy, policy or report written before COVID-19 or not directly in response to the impacts of COVID-19 in the Pacific.
Commentary, statement, opinion, call to action	Assumes these will be based in evidence reported in official documentation elsewhere. Often these do not include specific descriptions of impacts. Often these do not reference to their sources of information
Guidance or principles document	Generic guidance or advice about addressing major topics. Usually from the UN or similar, and not specific to the Pacific. If developed for the Pacific these will be generic principles of practice or frameworks to use, rather than COVID-19 specific impacts or actions.
Messaging or communication guidelines	
Media monitoring	Assumes media are reporting information from reputable sources, and that any information will be found in official documents elsewhere
Meeting documentation	Assumes meetings use information documented elsewhere. Often do not include specific descriptions of impacts.
Funding support	Funding decisions or aid decisions.
Working document	Plan, strategy or working document from a Pacific agency, with no reference to specific impacts not described elsewhere
Duplicate	Some documents were entered more than once. We have excluded summaries and presentations in preference for the full report.
Situation report	TC Harold response

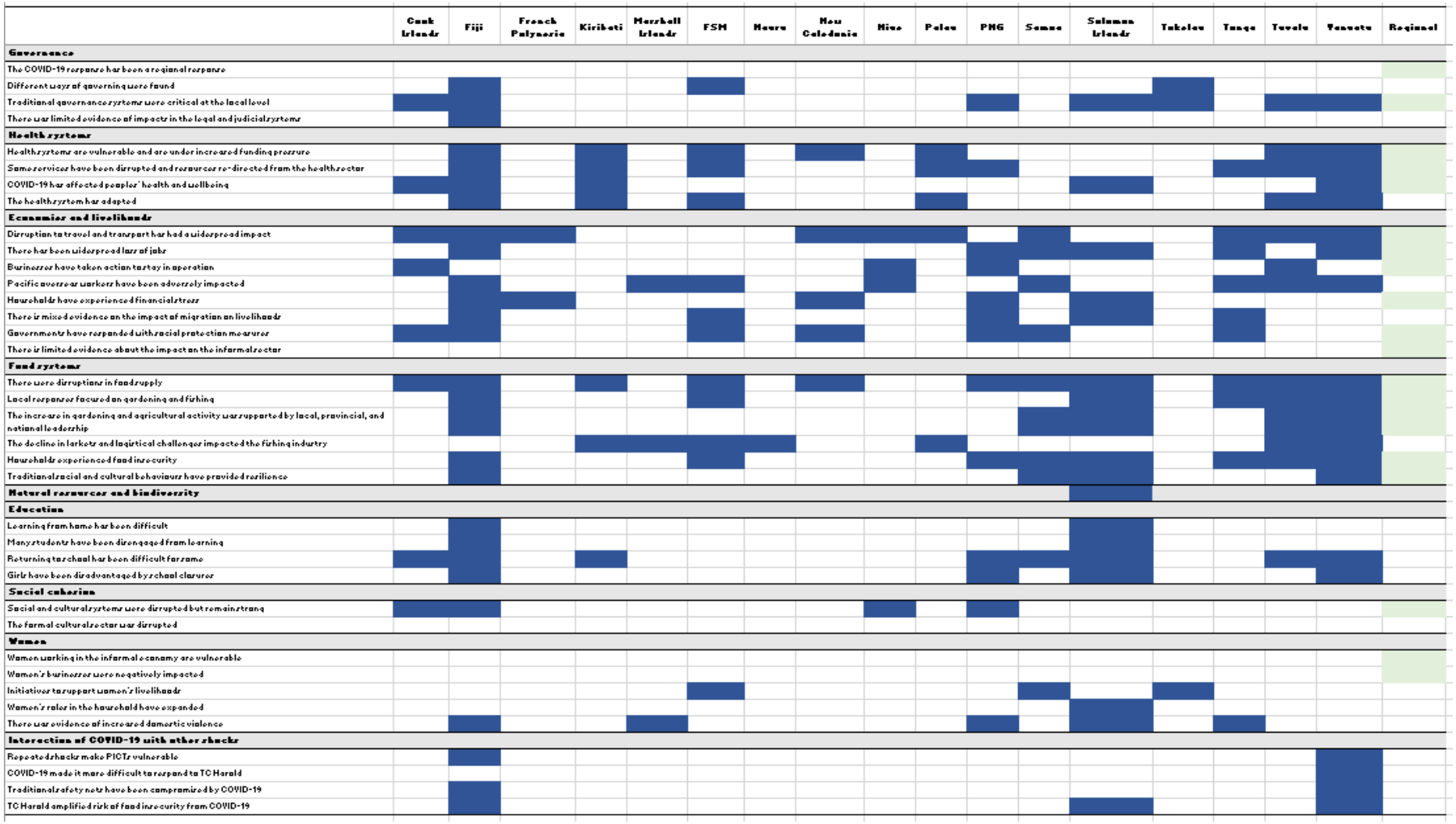
7.2. Appendix B: Original research questions

These research questions were used to guide the identification and inclusion of evidence. As noted in section 3.2, these were changed prior to analysis to better match SPC's Transition Plan focus areas.

Research question no.5 was answered in the Phase 1 Situation Report, and so was not included in this Phase 2 analytical report.

1. What are the economic, cultural, social, health, environmental, legal, governance and other impacts of COVID-19 on the Pacific Region?
2. What are the economic, cultural, social, health, environmental and other impacts of COVID-19 on each Pacific Island Country and Territory, and the sectors where SPC works?
3. How is COVID-19 interacting with other shocks in the region, including climate change and natural disasters, such as TC Harold?
4. What do we know about the impact of COVID-19 on specific groups, such as women, rural or remote communities, youth, persons with disability and others?
5. Where is the focus of CROP agencies and donors when it comes to impacts of COVID-19 in the Pacific?
6. What are some key knowledge gaps for further investigation?

7.4. Appendix C: Countries referenced in the report for each theme



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7.6. Appendix D: Main sources of evidence for each focus area

Focus area	Sources of evidence
Governance	• The UN SEIA report for Fiji includes a short section on governance. • Numerous examples of local governance in action during 2020 were provided in the series of coastal community surveys and other research in coastal communities. • A Fijian gender, disability, and inclusion analysis. • Some qualitative and anecdotal information was in two social cohesion reports that included information on a number of PICTs. • Brief commentary or references to governance in relation to focus areas were included in the Pacific Economic Monitor report for December 2020, the Vanuatu Post Disaster Needs Assessment (PDNA), and a regional food systems assessment. • Contextual information gathered from Pacific Islands Forum Secretariat website.
Health systems	• Pillar 1 assessments conducted for Kiribati, Palau, Federated States of Micronesia (FSM), Tonga, Tuvalu, Vanuatu, and Fiji. • The UN SEIA report for Papua New Guinea (PNG) includes a short section on healthcare impacts, but not the full Pillar 1 assessment as in the documents listed above. • The Pacific Economic Monitor report for December 2020 includes a policy brief discussing health spending. • Health sector issues are briefly discussed in reports on urban systems, labour mobility, the Vanuatu Post Disaster Needs Assessment (PDNA) reports, gender briefs, and in the PNG high frequency phone survey. • The Pacific Business Monitor includes questions on community and individual wellbeing, and so has been included here.
Economies and livelihoods	• Three World Bank reports (a regional economic update, with country-specific information, macroeconomic and job impacts report, and a labour mobility report) • Asian Development Bank Economic Monitor reports July and December 2020, including policy briefs on poverty and health systems. • SPC SDD short reports about visitor arrivals, merchandise trade, and an economic report for quarter 2. • UN SEIA reports for Fiji and PNG. The PNG assessment included a survey of firms. • Pacific Trade Invest Pacific Business Monitor series of decision-makers/owners in small and medium sized businesses • ILO Rapid Assessment of Fijian and Samoan workers • Two general population phone surveys in PNG and the Solomon Islands included information about economic activity and financial stress. • A Fijian gender, disability, and inclusion analysis. • Assessments of nutrition and socio-economic impacts of COVID-19 in communities in Fiji & Solomon Islands included information about livelihoods • Blogs from the DevPolicy website • Two short economic reports from Comptes Economiques Rapides pour l'Outre-mer
Food systems	• Series of nine coastal community surveys, including open-ended responses. • Assessing nutrition and socio-economic impact of COVID-19 in communities in Fiji & Solomon Islands, including qualitative and quantitative information • Rapid assessments of food systems and food security in coastal communities the Solomon Islands and Vanuatu

Focus area	Sources of evidence
	• Pacific Farmers Organisation survey, with 17 respondents representing farmers organisations from across the Pacific • A regional assessment of food systems vulnerabilities, impacts and opportunities, including country-specific information. • FAO report of the impact of COVID-19 on the food systems and responses in the Pacific Small Island Developing states • Forum Fisheries Agency committee meeting papers • Data from the World Food Programme mobile vulnerability mapping analyses for Fiji, Samoa and Tonga. • Two general population phone surveys in PNG and the Solomon Islands included information about food strategies to cope with financial stress. • A SEIA on food and nutrition security in Fiji, Palau, RMI, Tonga and Tuvalu, and the full UN SEIA reports for Fiji and PNG. • Some qualitative and anecdotal information was in two social cohesion reports that included information on a number of PICTs.
Education	• The UN SEIA Fiji and PNG reports. • The two nutrition and SEIA assessments in communities in Fiji and the Solomons Islands included sections on education. • The general population phone survey in PNG. • Two gender analyses included information on education – the Fijian gender, disability, and inclusion analysis, and the Pacific wide Pacific woman thematic brief. • There were references to education in the Pacific Economic Monitor report for December 2020.
Social cohesion	• The main sources of evidence were two qualitative reports on aspects of social cohesion in FSM, Kiribati, Nauru, Solomon Islands, Vanuatu, Cook Islands, Niue, PNG, Samoa and Tokelau. • There was some information in other reports including the Fiji SEIA of urban systems, the full SEIA reports for Fiji and PNG, the Fiji gender, disability and inclusion analysis, and in some community food security assessments.
Women	• A Pillar 2 assessment on gender-based violence in Fiji, Tonga, and RMI. • A Fijian gender, disability, and inclusion analysis. • Some qualitative and anecdotal information was in two social cohesion reports that included information on a number of PICTs. • Thematic brief – impact on girls and adolescents – 21 girls aged 14 to 19 years Fiji, PNG, Solomon Islands and Vanuatu
TC Harold	• The Post Disaster Needs Assessment reports from Vanuatu. • Rapid assessments of food systems and food security in coastal communities the Solomon Islands and Vanuatu • A Fijian gender, disability, and inclusion analysis. • UN SEIA report for Fiji • Other information about the effects of TC Harold was in the Economic Monitor July 2020, a regional food systems assessment, and in the Fijian coastal community surveys.

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