

HIGHLIGHT

Social protection and jobs programs (SPJ) can improve livelihoods and reduce vulnerability in coastal fishing communities in Solomon Islands, but these programs must be designed in a way that responds to socio-economic vulnerabilities and climate risks, recognizes the reliance of communities on fishing for nutrition and income, and integrates with community-level fisheries management. The Solomon Government (SIG) has placed communitybased resource management (CBRM) at the center of its strategy for coastal fisheries management. CBRM recognizes and builds on traditions of indigenous conservation and community rights to promote fisheries management and sustainable harvests. Supporting CBRM through expanded formal social protection (SP)—linked with financial inclusion, climate change adaptation, disaster risk reduction (DRR), and other complementary initiatives—has the potential to reduce vulnerabilities.

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Opportunities for Linking Fisheries Management and Social Protection in Solomon Islands^{1,2}

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Abbreviations

ASP Adaptive Social Protection

CBRM Community-based resource management

CBSI Central Bank of Solomon Islands

CCA Climate Change Adaptation **DRM** Disaster Risk Management DRR Disaster Risk Reduction FAD Fish Aggregating Device

FAO Food and Agriculture Organization of the United Nations

GDP Gross Domestic Product

HFPS High Frequency Phone Survey

INGO International Non-Governmental Organization

KII Key Informant Interview

MALD Ministry of Agriculture and Livestock Development

MCILI Ministry for Commerce, Industry and Labour and Immigration

MECDM Ministry of Environment Climate Change Disaster Management and Meteorology

MFMR Ministry of Fisheries and Marine Resources Ministry of Health and Medical Service **MHMS**

MID Ministry of Infrastructure and Development

MPS Ministry of Public Service

MSSIF Mekem Strong Solomon Islands Fisheries (program) Ministry of Women, Youth, Children and Family Affairs **MWYCFA**

NDMO National Disaster Management Office

NDS National Development Strategy NGO Non-Governmental Organization

NPF National Provident Fund

PAI M Pacific and Australia Labour Mobility (Scheme)

Pacific Island Countries **PICs**

PFIP Pacific Financial Inclusion Programme

PWD Persons with Disabilities

RSE Recognised Seasonal Employer (Scheme)

Solomon Islands Government SIG

SPC Pacific Community SP Social Protection

SPJ Social Protection and Jobs

United Nations Capital Development Fund **UNCDF** West 'Are'Are Rokotanikeni Association WARA

WWF World Wide Fund for Nature

Executive Summary

This case study explores potential linkages between Social Protection and Jobs (SPJ) programs and fisheries management to strengthen livelihoods and reduce vulnerability of fishing households while enhancing the sustainability of coastal fisheries in Solomon Islands. Solomon Islands comprises nearly 1,000 islands with most of its population of 721,455 living in coastal areas. Over 80 percent of Solomon Islanders⁵ are engaged in small-scale fisheries and agriculture, while about 1,800 are directly employed in oceanic tuna fisheries.⁶ Sixty percent of Solomon Islanders are involved in fishing activities for their own consumption or for sale (SINSO, 2015). Data and methods used for the study include quantitative and qualitative data and information gathered through literature reviews, analysis of surveys⁷ and national census data, key-informant interviews, and stakeholder workshops.

Coastal communities and fishing households are highly vulnerable to climate change threats, including sea-level rise, coastal erosion, storm surges, and extreme weather events that harm infrastructure, livelihoods, and the viability of coastal ecosystems. Fisheries provide a safety net for coastal households during times of crisis if they are well-managed, but risks and hazards, combined with economic pressures, can make it difficult for coastal fishers to comply with fisheries management measures. In the long term, this can diminish the availability of fish, undermining the food security and livelihoods of fishing households. Fishing households face additional challenges in accessing essential services such as healthcare, education, clean water, and sanitation. Economic vulnerabilities are compounded by factors such as low education levels, unemployment, and lack of social safety nets.

Vulnerability analysis found that fishing households have significantly lower ownership of durable assets compared to agriculture or other households. This limits their ability to cope with shocks and increases their use of detrimental coping strategies, such as spending savings, reducing food consumption, selling assets, and withdrawing children from school. Fishing households consistently rank lower across deprivation dimensions—including access to clean water and sanitation, standard of dwellings, and access to healthcare—despite having similar demographics in terms of household size, dependency ratio, and age and gender of head of household. Women

Solomon Islands Ministry of Fisheries and Marine Resources (2019) Solomon Islands National Fisheries Policy 2019–2029: A policy for the conservation, management, development and sustainable use of the fisheries and aquatic resources of Solomon Islands. MFMR, Solomon Islands

Pacific Island Forum Fisheries Agency, Tuna Development Indicators 2016, https://www.ffa.int/system/files/FFA%20Tuna %20Development%20Indicators%20Brochure.pdf

The surveys involved are: (i) National Agricultural Survey (NAS) 2017 (SIG, 2019) covering 4,224 households subsequently grouped into fishing and non-fishing households; (ii) High-Frequency Phone Surveys (HFPS) conducted by the World Bank in 2020, 2021, and 2022 comprising 8,055 households grouped into: fishing households (which also engage in agricultural activities) (n=958); agriculture households (with no fishing activities) (n=1,253); and other households (with neither fishing nor agriculture activities) (n=5,845); and (iii) World Fish panel survey from 2016 and 2018 to understand costal livelihood in relation to CBRM (1 villages, n=285 respondents). The Note also incorporates recent World Bank analysis of the Solomon Islands 2019 Population and Housing Census.

perform over 50 percent of gleaning and subsistence fishing (Gomese et. al., 2020; and Lau et. al., 2023). Women, young girls, and the elderly in Solomon Islands are involved in a variety of fishingrelated activities, including shell collection, fish processing and drying, or selling fish in the market (SPC, 2023).

The Solomon Islands Government (SIG) recognizes the rights of indigenous people to manage their coastal resources.8 This is consistent with customary tenure provisions for communal land and sea areas (UNDP, 2021). Community-based resource management (CBRM) represents the primary strategy for coastal fisheries management, building on indigenous traditions of conservation and community rights to enable communities to maintain sustainable harvests through fisheries management. Communities form CBRM committees and draft a CBRM plan, including maps that define the area of jurisdiction, and identify fisheries management zones and rules to govern sustainable use and access to them.9 More than 500 communities have applied for CBRM, but most are in the early phases of developing their management plans, and government resources to support CBRM are limited.

Solomon Islands has limited national SPJ systems and coverage and lacks a national social protection policy and strategy. No formal social protection (SP) programs targeting vulnerable populations exist that could be scaled-up in response to shocks. Rural households rely on traditional types of social protection in the form of cash, food, and in-kind support provided by kin, extended family members and neighbors. Remittances from urban to rural households also provide a safety net (SINSO, 2019).10 World Bank High Frequency Phone Survey (HFPS) data collected during the Covid-19 pandemic showed that fishing households relied mostly on informal assistance to respond to Covid-19 challenges, but this type of assistance was insufficient to avoid food insecurity and sale of assets in the case of such widespread shocks.

A few formal SPJ mechanisms exist. Formal SPJ currently consists of the Solomon Islands National Provident Fund (SINPF) for formal sector workers providing retirement savings, maternity, and employment injury benefits to more than 136,000 members in 2018.11 SINPF offers a voluntary scheme for the self-employed and informal workers through "youSave". Labor market programs provide skills and vocational training, traineeships and apprenticeships and job placement for students who have completed secondary school; however, as only 12.0 percent of girls and 14.0 percent of boys in Solomon Islands graduate at the end of year 12,12 the reach of these programs is limited. Community-based savings clubs support financial inclusion for women through savings and small loans to members in case of health, income, or disaster-related shocks. Public works programs such

Solomon Islands National Fisheries Policy 2019-2029 and Ministry of Fisheries and Marine Resources Corporate Plan 2020-2023.

The Fisheries Management Act (2015) includes provisions for Community Fisheries Management Plans

¹⁰ SINSO (2019) Housing and Population Census (2019) Volume 1.

¹¹ Solomon Islands National Provident Fund Annual Report 2018.

¹² MEHRD. 2021. National Education Action Plan 2022–2026. Honiara.

as the Community Access and Urban Services Enhancement (CAUSE)13,14 project provide temporary employment for workers to build essential community infrastructure.

This case study presents opportunities for CBRM and SPJ interventions to work in coordination to promote sustainable use of renewable natural-resources, improved livelihoods, financial inclusion, climate-change adaptation, disaster-risk management, and access to essential services. The success of such initiatives will depend on political commitment and leadership, as well as a community commitment. SPJ programs linked to fishing, fisheries management, and food security programs can support vulnerable households to adopt sustainable livelihood and environmental practices. Social protection interventions—such as alternative livelihood development, or income support in the form of cash transfers—could help incentivize compliance with fisheries management measures and compensate those who are negatively impacted by such measures. SPJ activities to create jobs, improve livelihoods, and develop skills should be accessible to women, youth, and marginalized groups to support both fishing and non-fishing households. An adaptive social protection (ASP) system could be established and gradually expanded to meet the needs of the most vulnerable when emergencies occur. Climate and Blue finance mechanisms offer potential sources of funding for integrating SPJ interventions with fisheries management to promote sustainability of fisheries and livelihoods for future generations.

1. Introduction: Linking fisheries management and social protection in Solomon Islands

This Case Study Note examines the potential for "Blue Social Protection"—the linking of Social Protection and Labor (SPJ)¹⁵ with fisheries management interventions

to support fisheries management while addressing vulnerability and resilience—in coastal Solomon Islands' communities. The Note analyses and identifies social protection and jobs mechanisms that could be adapted to benefit fishing households and coastal communities. It explores the potential for SPJ interventions and complementary services to support communities to address the interconnected challenges of fisheries

¹³ https://www.worldbank.org/en/news/feature/2023/02/13/-you-can-hear-it-in-their-voices-employment-program -delivering-much-more-than-jobs-in-solomon-islands; https://www.worldbank.org/en/results/2020/11/06 /community-access-and-urban-services-enhancement-project

¹⁴ https://www.worldbank.org/en/results/2020/11/06/community-access-and-urban-services-enhancement-project

¹⁵ The World Bank's Social Protection and Labor Strategy 2012–2022 ("Resilience, Equity and Opportunity") describes SPL as follows: "Social protection and labor systems, policies, and programs help individuals and societies manage risk and volatility and protect them from poverty and destitution—through instruments that improve resilience, equity, and opportunity." SPL programs comprise: (i) Social assistance (social safety nets) such as cash transfers, school feeding, and targeted food assistance; (ii) Social insurance such as old-age and disability pensions, and unemployment insurance; (iii) Labor market programs such as skills building, job search, and matching programs, and improved labor regulations. https://documents1 .worldbank.org/curated/en/443791468157506768/pdf/732350BR0CODE200doc0version0REVISED.pdf

management, climate change adaptation and disaster risk reduction, and enhance communities' resilience and livelihoods.

Over the past decade, countries have recognized SPJ's important role in addressing vulnerabilities and people's protecting the most disadvantaged segments of the population from shocks. SPJ interventions are increasingly considered an investment in people and the broader economy rather than a cost.

The Solomon Islands National Development Strategy (NDS) 2016-2035 targets reduction of the proportion of the population living **below the poverty line** to less than 10 percent by 2020, and further reducing to 5 percent by 2030. Low income, lack of employment opportunities, geographical isolation, limited natural resources, and narrow production and export bases add to the socio-economic vulnerability of Solomon Islanders. Despite these conditions, investment in Social Protection (SP) is still limited. In 2018, 2.2 percent of Gross Domestic Product was spent on SPJ in Solomon Islands (or USD 33.8 million), of which 98 percent was spent on social insurance, 0.13 percent on social assistance and 1.7 percent on labor market programs (ADB, 2022).

SPJ takes on an added urgency because of relatively high climate risks, including exposure to cyclones, heavy rainfalls, earthquakes and sea level rise (World Bank, 2021) that increase the vulnerability of

livelihoods in coastal areas. SPJ policies and programs can be tailored to address specific vulnerabilities among coastal communities. SPJ interventions can be established and expanded to support fisheries management measures to adapt to environmental and climate changes, shocks and shifts, while simultaneously addressing poverty, inequality, and social exclusion.

This Case Study Note recommends actions to analyze, establish and gradually expand SPJ programs and systems to enable and incentivize effective coastal fisheries management and improve the wellbeing of coastal community residents. The primary objectives of the study are to explore potential linkages between SPJ and fisheries management and to suggest options to strengthen livelihoods and reduce vulnerability of fishing households enhancing sustainability of coastal while fisheries resources in Solomon Islands. Both oceanic and coastal fisheries play important roles in the country's national economy, but this study focuses on coastal fisheries because of their important contribution to food security, nutrition, and livelihoods, and the need to ensure these essential resources are managed for sustainable production.

This Note is organized into seven sections: This Section 1 introduction provides country context and a brief overview of risk and vulnerability in coastal communities. Section 2 describes data and methods used for the study. Section 3 presents a vulnerability and socioeconomic profile of fishing households. Section 4 describes fisheries management and governance, with a focus on Community-based Resources Management (CBRM). Section 5 provides an overview of current SPJ programs and policies in Solomon Islands and how SPJ could benefit fishing households. Section 6 discusses opportunities for integrating SPJ and fisheries management emerging from this exploratory study and Section 7 presents conclusions and recommendations and suggested next steps.

1.1. Solomon Islands country context

Situated in the western central Pacific Ocean, Solomon Islands is a culturally diverse nation consisting of nearly 1,000 islands, with the second largest exclusive economic zone and second longest coastline in the Pacific (Solomon Islands Marine Atlas, MECDM, 2021). The country is classified as a least developed country (UN DESA, 2023). The country's Gross Domestic Product (GDP) per capita was US\$2,483 in 2020, with a poverty headcount ratio of 24.7 percent of the population, measured at US\$1.90 a day (World Bank, 2022). However, GDP growth in Solomon Islands has steadily decreased, peaking in 2010 (annual growth rate of 9.7 percent) followed by a

continuous decline from 2011 onwards, hitting a low of -4.1 percent in 2021.16 This decline in GDP threatens to impede poverty reduction progress. The population of 721,455 people is young, with over 50 percent under 20 years of age, and largely rural at around 80 percent. Mostly Solomon Islanders live in small villages of just a few hundred people (2019 National Population and Household Census, SINSO, 2021). Most people live in coastal areas, with 65 percent of the population living less than one kilometer from the coast, and 91 percent within five kilometers (Andrew et al., 2019).

The country is home to one of the world's most diverse coastal ecosystems. Compared with other countries in the region, the reefs supporting coastal fisheries remain in relatively good condition (Jupiter et al., 2019). Coastal resources sustain much of the population, providing both nutrition and income. While coastal proximity provides access to fish and other aquatic foods, it also exposes the population to shocks and hazards associated with climate change, such as sea-level rise, storm surges, cyclones, and other disasters (2019 National Population and Household Census, SINSO, 2021).

Most households (76 percent) in the Solomon Islands generate income through items grown, caught, or made at home and sold for cash (ADB, 2018). While some people engage in formal employment, the majority earn their income

¹⁶ World Bank national accounts data, and OECD National Accounts data files. https://data.worldbank.org/indicator/NY .GDP.MKTP.KD.ZG?locations=SB

in the informal sector (SINSO, 2009). Sixty-three percent of rural women, compared to 48 percent of rural men, are subsistence workers (SINSO, 2015). Sixty-eight percent of all rural households, and 33 percent of all urban households, engage in activities to catch fish or other marine animals (SINSO, 2015).

The fisheries sector in Solomon Islands, consisting of both oceanic (primarily large-scale) and coastal (primarily small-scale) fisheries, plays a vital role in the national economy, and is the second most important export in terms of revenue after forestry. Oceanic fisheries provide critical state revenue through fishing access fees, and jobs through export and processing of tuna and other products. Coastal fisheries are a crucial source of jobs and livelihoods in coastal communities and are essential for food security and nutrition. Over 80 percent of Solomon Islanders¹⁷ work in small-scale fisheries and agriculture, and about 1,800 are directly employed in oceanic tuna fisheries.18 Sixty percent of Solomon Islanders are involved in fishing activities, either for their own consumption or for sale (SINSO, 2015), and processed fish accounted for 12 percent of total exports in 2020

(UN, 2021). Both oceanic and coastal fisheries depend on healthy ecosystems and habitats, but climate change, population growth, and a lack of management can put these vital resources at risk.

the same time, most households At (89 percent) have gardens in which people grow their own food (SINSO, 2015). Many coastal households rely on a combination of both agriculture and fishing for subsistence and income, with farming fulfilling much of their staple food requirements and fishing providing the major source of protein.

1.2. Risk and vulnerability in coastal communities

The land and sea resources that Solomon Islanders rely on for food and income provide a source of self-reliance for its indigenous people, but they are also vulnerable to multiple types of shocks. Small-scale activities of fishing households, combined with socioeconomic and demographic circumstances, limit their adaptive capacity to respond and recover from the consequences of recurring shocks.¹⁹ Solomon

¹⁷ Solomon Islands Ministry of Fisheries and Marine Resources (2019) Solomon Islands National Fisheries Policy 2019–2029: A policy for the conservation, management, development and sustainable use of the fisheries and aquatic resources of Solomon Islands. MFMR, Solomon Islands

¹⁸ Pacific Island Forum Fisheries Agency, Tuna Development Indicators 2016, https://www.ffa.int/system/files/FFA%20Tuna %20Development%20Indicators%20Brochure.pdf

¹⁹ It is important to note that the use of the term "vulnerable" to describe groups of people such as fishers or indigenous communities has been met with criticism. Fishers and indigenous people at the Small-Scale Fisheries Summit 2022 and other forums have raised objections to being described as "vulnerable," arguing that this term implies a deficit of individual or group characteristics, as opposed to describing a situation of having been subject to structural constraints such as discrimination and marginalization. (https://ssfhub.org/small-scale-fisheries-summit-2022? ptLanguage=eo-EO)

Islanders faces a range of risks from climate change, and the World Risk Report (BEH/RUB 2021) ranks Solomon Islands as the country at second highest risk of disasters in the world. Risks are mainly due to exposure to extreme natural events, with low economic capacity and capability to avert or respond to disasters. The most common events are storms and floods, while the country also averages two cyclones a year and occasional droughts (World Bank, 2023). Coastal communities are particularly vulnerable to slower onset environmental changes such as sea-level rise, and intrusion of seawater into areas formerly used for housing, gardens, and coconut plantations, with some islands becoming uninhabitable due to soil salinity and lack of fresh water and space for food gardens (UNDP, 2014).

Fisheries are an important source of resilience during hardships and shocks, including from natural disasters (Eriksson et al., 2017). During the Covid-19 pandemic, Solomon Islands communities experienced many challenges including restrictions on movement, delays in shipping of food and goods, and reduced cash flow in villages and relied on fisheries and household gardens as their main sources of food security (Eriksson et al., 2020b). The SIG explicitly recognizes the links between sustainable natural resource use, including fisheries, and the

livelihoods and wellbeing of its citizens, particularly small-scale farming and fishing households in coastal communities with high exposure to disasters and climate change risk. This is reflected in key SIG policies and strategies, with commitments to "strengthen the contribution of small-scale fisheries for food security and socio-economic benefits of fishing communities (SIG, 2014)." The National Fisheries Policy 2019–2029 envisions "...a sustainable fisheries sector that contributes to the socio-economic needs of all Solomon Islanders" and provides "...enhanced livelihood opportunities for rural men and women, including vulnerable and marginalized groups, that access, use and benefit from inshore and inland fisheries." Maintaining a sustainable fisheries sector requires effective fisheries management, and SPJ tools and mechanisms may provide a means to foster sustainability of fisheries resources. (Annex 1 provides a table of SIG policy documents referred to in this report.)20

Certain groups face particular risks and vulnerabilities due to social and cultural barriers and exclusion (PRP, 2022). Women in Solomon Islands are often marginalized from decision-making, and are more likely to work in unregulated sectors, earn lower incomes, and be engaged in "vulnerable" work;²¹ that is, unpaid or

²⁰ Key documents include the National Development Strategy 2016 to 2035, the National Environment Management Strategy (NEMS) 2020-2023, the National Food Security, Food Safety and Nutrition Policy 2019 – 2023 and the Aguaculture Management and Development Plan 2018–2023 (MFMR 2018)

²¹ The 2019 Census categorizes "employment" as "paid work (monetary) and unpaid work (non-monetary)." "Unpaid work" includes persons employed voluntarily who assist other households, or as unpaid family worker, or as an own-account (subsistence) worker

irregular work lacking formal work arrangements or SP benefits (Wodon and de la Brière, 2018). In 2019, more females (55.6 percent) were in unpaid work compared to males (44.4 percent) (SINSO, 2019). There are limited options for local employment and sustainable livelihoods for young people aged 20-29,22 who represent 40 percent of all unemployed (SINSO, 2019). The national youth unemployment rate for persons aged 15-24 years is 14.5 percent (SINSO, 2019), increasing their vulnerability to exploitation, particularly in the mining and logging sectors (UNDP, 2018). The prevalence of people with disabilities (PWD) in Solomon Islands is higher in rural populations compared to urban populations (SINSO, 2017),²³ and they face barriers to accessing secondary education (SINSO 2017),²⁴ being included in decision-making and employment, and are at risk of physical and sexual violence (PIFS, 2016, and Live and Learn, 2021).

Data and methods

Resources were not available for primary field data collection, so the case study was designed to use existing secondary **sources** to examine the potential for integrating SPJ interventions with fisheries management to improve livelihoods and sustainability of fisheries in coastal fishing communities. The study is exploratory, intended to generate knowledge on a topic for which there was little existing information. This included developing socioeconomic profile and vulnerability assessment of coastal fishing households, documenting existing SP systems and programs, both formal and informal, and current coastal fisheries management systems and practices, and opportunities for linking the two.

The study uses five types of data, as **Table 2.1 outlines.** The lack of up-to-date socioeconomic data on coastal fisheries and households in Solomon Islands was a constraint, and disaggregated data from the 2019 Census was not yet available at the time the case study was developed. The types of quantitative and qualitative data available informed decisions on the methodology used.

²² The 2019 Census found that most unemployed persons were in the age groups 20-24 years (21.7%) and 25-29 years (18.3%).

^{23 17} percent of people living in rural areas were found to have a mild to severe disability, compared with 15 percent of people in urban areas.

^{24 46} percent of persons with a moderate or severe disability had a primary education, compared to around 10 percent who have a secondary education.

TABLE 2.1: DATA SOURCES AND METHODS USED IN THE STUDY

Data source	Methodology
Literature review	Examined conceptual and empirical literature (96 documents) and policy documents (34) to provide background and context for the study, identified appropriate interview and workshop participants, mapped existing SP programs, and informed recommendations.
Secondary quantitative data analysis	Undertook a vulnerability assessment of fishing households based on the dimensions of poverty introduced by Yemtsov (2013), using data from the: i) National Agricultural Survey (NAS) 2017 (SIG, 2019) covering 4,224 households subsequently grouped into fishing and non-fishing households; and ii) High-Frequency Phone Surveys (HFPS) ²⁵ conducted by the World Bank in 2020, 2021, and 2022 comprising 8,055 households grouped into fishing households (which also engage in agricultural activities) (n=958); agriculture households (with no fishing activities) (n=1,253); and other households (with neither fishing nor agriculture activities) (n=5,845). ²⁶ The three waves of HFPS do not provide data on monetary poverty or consumption but include questions shedding light on households' deprivations and dimensions of vulnerability. Data from the 2019 Solomon Islands Census, which became available after the main research was completed, was analyzed to examine participation in fishing activities reported by households and utilization of the catch across the country. ²⁷ Principal Component Analysis (PCA) was used to identify a typology of fishing communities and households using this data.
Survey of coastal households (quantitative data)	WorldFish used panel data collected in 2016 and 2018 to understand the changing dynamics of coastal livelihoods in relation to CBRM. ²⁸ The survey was carried out in 11 villages in Malaita province and two villages in Western Province with a total of 285 respondents. The data consists primarily of respondents from Malaita, and thus results from Western Province should be interpreted with caution due to the small sample size. The survey data represents only two of nine provinces in the country and should be read in conjunction with other studies.
Key informant interviews (KII) (qualitative data)	Semi-structured interviews were conducted by World Fish with practitioners and experts working on policies, activities, and projects related to SP and/or fisheries. ²⁹ The interview guide was based on diagnostic tools from the FAO (FAO 2022a, 2022b). Content from these interviews was coded into themes and analyzed using Nvivo qualitative analysis software.
Stakeholder workshops (qualitative data)	Two consultation workshops were conducted by WorldFish, one with government representatives and the other with non-governmental agencies, to obtain inputs on preliminary findings from the KII and household survey analysis. All participants were practitioners involved in the design and management of fisheries and/or SP activities. Workshops were held on 7-8 February 2023 and included drafting recommendations presented in Table 3.

Note: ACIAR = Australian Centre for International Agricultural Research; CSO = Civil Society Organization; NGO = Non-Governmental Organization.

²⁵ The HFPS were implemented during the Covid-19 pandemic when restrictions were in place on travel and other activities, and thus mobile phones were one of the few available means for collecting information on the impacts of the pandemic on households. However, other sources of information (see Section 3.4) point to the limited cellphone coverage and ownership in many rural areas and thus fishing households in the more remote areas were probably not well represented in the HFPS.

²⁶ Both NAS and HFPS only asked questions about "fishing", not any other activities in the fisheries value chains. Therefore, households with people engaged in fishing are referred to as "fishing households" when discussing these data sets. "Fisheries households" would refer to households engaged in activities across the fisheries value chains.

²⁷ Includes data from World Bank (forthcoming), "Multidimensional Poverty and Spatial Disparities in Solomon Islands 2009-2019: Opportunities and Challenges of Urbanization," and the Principal Component Analysis (PCA) described in Section 3.

²⁸ The panel data was collected using pre-existing survey instruments with ethics permission from the University of Wollongong (2017/565) as part of an ACIAR-funded project (FIS/2016/300) and analyzed by WorldFish.

^{29 22} Key Informant Interviews were conducted with respondents from 8 local and 5 international organizations, 2 financial institutions, and 7 CSOs, NGOs and INGOs.

For this study, the term "fishing households" refers to households that have at least one person engaged in activities to capture and harvest fish and other aquatic animals, including gleaning in the intertidal zone.30

3. Vulnerability dimensions and profiles of fishing households

Rural and coastal communities in Solomon Islands face significant disparities in living conditions and access to services. Vulnerability dimensions encompass the economic, geographic, social and environmental contexts of individuals, households and communities, including their exposures to risks, low resilience against shocks and detrimental coping strategies as interrelated factors that contribute to levels of vulnerability and reduce resilience capabilities (Yemtsov, 2013).

This section reports the main results of analysis of the three sets of survey data and contextual and supporting information from other sources as outlined in Table 2.1.

Although the HFPS did not collect monetary or consumption data for households,31 HFPS provided data used to assess household vulnerability

dimension indicators, including income sources, assets, food security, living conditions, health and education. Analysis of HFPS data identified three categories of households: (i) "fishing households," which included any household in which at least one member is involved in fishing activities (along with other activities which may include farming); (ii) "agriculture households," whose activities include farming but do NOT include fishing; and (iii) "other households," whose activities include neither farming nor fishing. There are no significant differences in demographic characteristics between fishing and non-fishing households (consisting of "agriculture" and "other" categories) in HFPS data. According to the HFPS data, the ratio of male household heads are 87 percent for fishing and 81 percent for other households, respectively. Seventy-five percent of fishing households live in rural areas compared to 73 percent of agriculture and 48 percent of other households.

3.1. Household participation in fishing activities and utilization of the catch

Fishing plays an important role in household livelihoods and food security across the country (Figure 3.1). The World Bank analyzed

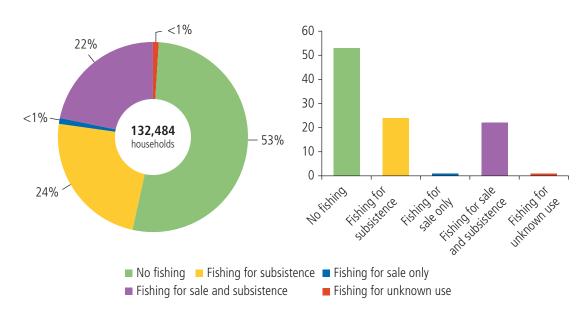
³⁰ The HFPS and NAS surveys did not include questions about households' participation in aquaculture or upstream and downstream fisheries value chain activities such as selling, trading, and processing fish and other aquatic animals and plants.

³¹ The most recent available poverty estimates for Solomon Islands are based on HIES 2012-2013. The next HIES is scheduled for 2024/25. The 2019 Census does not have monetary poverty data.

data from the Solomon Islands 2019 Population and Housing Census to examine participation in fishing activities reported by households across the country. Households indicated whether any members of the household were engaged in fishing (fishing or no fishing) and whether the catch was for sale only, subsistence (household consumption) only, a combination of sale and subsistence, or the use of the catch was unknown. The relevant information was available for 131,566 out of a total

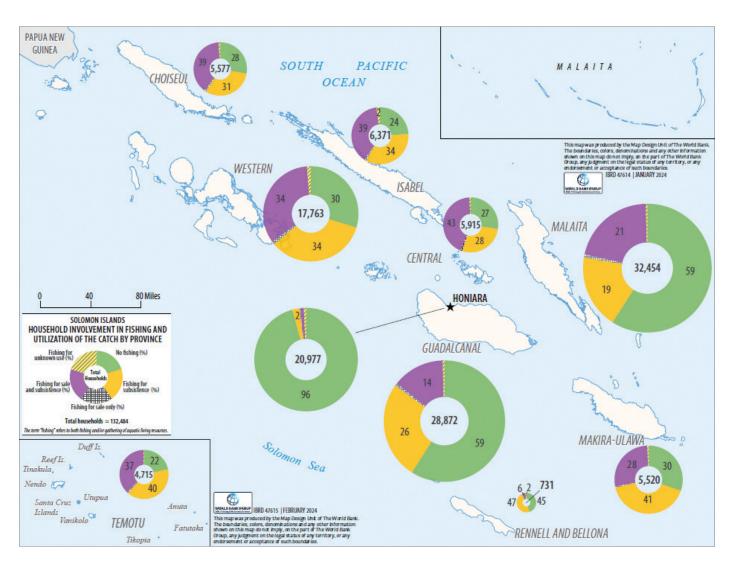
of 132,484 households. Of the former, 61,585 (or around 47 percent) indicated participation in fishing activities. Figure 3.2 shows that there is considerable variation between the nine provinces and one Provincial city in both the absolute number of households and the percentage of the total population engaged in fishing. Only the capital city, Honiara, and two provinces (Guadalcanal and Malaita) have fewer than 50 percent of households engaged in fishing."

FIGURE 3.1: SOLOMON ISLANDS HOUSEHOLD PARTICIPATION IN FISHING ACTIVITIES AND **UTILIZATION OF THE CATCH**



Solomon Islands Government (2021). 2019 National Population and Household Census

FIGURE 3.2: HOUSEHOLD PARTICIPATION IN FISHING ACTIVITIES AND UTILIZATION OF THE **CATCH BY PROVINCE**



Solomon Islands Government (2021). 2019 National Population and Household Census

3.2. Typologies of fishing households

Fishing households in the Solomon Island can be grouped according to their primary sources of income and livelihood activities and fishing practices. The World Bank conducted a principal component analysis (PCA)³² using the 2019 census data to provide a more detailed characterization of households' livelihood activities based on 13 variables related to income sources, fishing practices by men and women, boat ownership, involvement in agriculture and animal husbandry, and utilization of the fish catch. The analysis identified four distinct groups among the households involved in fishing,³³ characterized by their primary sources of income and livelihood activities, with a focus on their participation in fishing. Fishing is a predominant activity and source of income for one group, while for the other three groups fishing it is a complementary or secondary activity and source of income. The four categories of fishing households can be characterized as shown in Table 3.1.34

Analysis based on these typologies of fishing households can help improve data collection and understanding of fishing practices and incomes, and the volumes and utilization of the fish catch. The typologies and data can inform and improve fisheries management and development of programs to improve livelihoods of fishing communities.

³² A Hill & Smith analysis (Hill and Smith 1976), which is a PCA on quantitative and qualitative variables (Dray and Dufour 2007), followed by a hierarchical clustering (Everitt 1974; Everitt et al. 2011).

³³ Sufficient information to undertake the PCA was available for 119,184 households, of which 48,804 were involved in fishing.

³⁴ Fisheries Management Act 2015 Part 1 2. (1) "artisanal fishing" means fishing by indigenous Solomon Islanders in the waters where they are entitled by custom or law to fish where: (a) the fish are taken in a manner that, having regard to the vessel, the equipment and the method used, is small-scale and individually operated; and (b) the fish are taken exclusively for household consumption, barter or local market trade, unless otherwise prescribed. Fisheries Management Act 2015 Part 1 2. (1) "customary fishing" means fishing by indigenous Solomon Islanders, in waters where they are entitled by custom to fish, where: (a) the fish are taken in a manner that, having regard to the boat, the equipment and the method used, is substantially in accordance with the indigenous Solomon Islanders' customary traditions; (b) any boat used is small scale, individually operated and if motorized does not have more than one motor; (e) the fish are taken primarily for household consumption, barter or customary social or ceremonial purposes; and (d) the fish are not taken or used for commercial purposes. "Subsistence" in relation to fishing, means local, non-commercial fishing oriented for the procurement of fish for consumption of the fishers, their families and community.

TABLE 3.1: TYPOLOGIES OF FISHING HOUSEHOLDS IN SOLOMON ISLANDS

Types and Numbers of Fishing Households	Characteristics
Full time fishing households	Sale of fish is the major source of income.
(11,302 households or 23 percent of total fishing households)	Household members catch fish and/or collect invertebrates almost every day, and fishing activity is intended both for sale and subsistence.
	Most households in this group own one or two boats, generally equipped with an outboard motor.
	Both males and females in the household participate in fishing activities and they rarely catch freshwater fish.
	Wages, salaries, or sale of crops are not important sources of income for these households.
	Fishing solely for household consumption is uncommon.
Farming households who practice	Sale of crops is the primary source of income.
subsistence fishing part-time in coastal areas (19,889 households	Households are involved in agriculture both for sale and subsistence.
or 41 percent)	Livestock ownership is common.
	Household members engage in fishing activities, but daily fishing and the ownership of canoes and motors is uncommon.
	Female household members collect invertebrates about once a week.
	Wages or salaries are not a major source of income.
Farming households who practice	Sales of crops is the main source of income.
subsistence fishing part-time in inland waters (5,781 households or	Household members fish about once a month, primarily for subsistence, with both genders targeting freshwater fish.
12 percent)	Sale of fish is not a significant income source, and neither males nor females target reef fish.
	Few have boats equipped with outboard motors, although most own more than one canoe.
Wage laborers or salaried	The main source of income is wages or salaries.
employees who practice subsistence fishing part-time (11,832 households or 24 percent)	Agriculture and fishing activities are mainly for subsistence. They seldom own livestock. Few gather invertebrates, and they generally do not focus on freshwater fish.
	Fishing activities may be for sale or subsistence, but rarely both.

3.3. Income sources and assets

The 2019 Census reported 46.5 percent (61,185) of all households in Solomon Islands were engaged in fishing activities.³⁵ These are predominantly rural households³⁶ (Roscher et al., 2023). More than half (51.7 percent) fished or gathered for their own consumption (subsistence), while 46.7 percent fished for both their own consumption and to sell. Recent World Bank analysis of multidimensional poverty in Solomon Islands using 2009 and 2019 census data found households that relied on fishing as their primary source of income were poorer than non-fishing households in both urban and rural areas, and poorest among all fishing households.³⁷

The fishing category includes gleaning (the gathering of fish and invertebrates in shallow coastal, estuarine, or intertidal areas), which contributes to food security and is an important livelihood activity, particularly for women.38 The 2019 Census reported that both males (57 percent) and females (39 percent) participated in fishing for reef fish; however, 25 percent of female members of households compared to less than 3 percent of males participated in gleaning activities.

The WorldFish survey 2016 and 2018 documents the importance of fishing as a source of food, income and assets for coastal communities. Most respondents (76 percent) stated they fished, with the majority using hook and line as their primary fishing method. Fishing was reported as being mainly for household consumption. In Malaita, 38 percent of respondents did not sell their catch (41 percent only sell when they have surplus and 22 percent always sell it), while this figure increased to 70 percent in Western Province, indicating higher levels of catches for subsistence. The explanations for why people sell or eat their catch may depend on factors such as proximity to markets, seasonality, quantity and type of catch of the day, need for cash to pay expenses, and increased number of household members (Brewer et al., 2012; Roeger et al., 2016; Eriksson et al., 2020b).

More than 90 percent of WorldFish survey respondents owned garden plots. This concurs with other poverty and income studies indicating that most rural households have a vegetable garden. Subsistence production from such plots for household consumption is the primary economic activity for 53 percent of working-age women and 42 percent of working-age men in rural areas (World Bank, 2017). Fishing was ranked as the most important source of income, from a list of

³⁵ Only a small proportion of households from Honiara were involved in fishing activities.

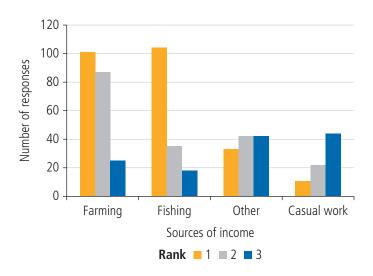
³⁶ Over 90 percent of fishing household participation comes from rural households in Solomon Islands.

³⁷ World Bank (forthcoming). "Multidimensional Poverty and Spatial Disparities in Solomon Islands 2009-2019: Opportunities and Challenges of Urbanization."

³⁸ See Gender in Aquaculture and Fisheries (GAF) section of the Asian Fisheries Society (AFS), https://www.genderaguafish. org/discover-gaf/gaf-networks-and-resources.htm

eight activities,³⁹ by 37 percent of respondents in the WorldFish survey, followed by farming at 35 percent, and "other" sources at 10 percent. Other sources of income included cooking, baking, and copra production (Figure 3.3). Casual work was ranked as the third most important activity.

FIGURE 3.3: **DISTRIBUTION AND RANKING OF** THE THREE MOST IMPORTANT SOURCES OF **INCOME (1 BEING THE MOST IMPORTANT)**



Source: WorldFish survey 2016 and 2018

These results affirm that Solomon Islands is a highly agricultural society where 93 percent of households engage in cultivating crops (SINSO, 2019) and aquatic foods provide the most common source of protein in local diets (Foale, 2013; Farmery et al., 2020). The National Food Security, Food Safety and Nutrition Policy 2019-2023 (SIG, 2019) highlights the need to improve supply of nutritious local food for fishing and farming communities through adoption of sustainable agriculture and fisheries management methods (SIG 2019, p.20).

3.4. Food sources and food security

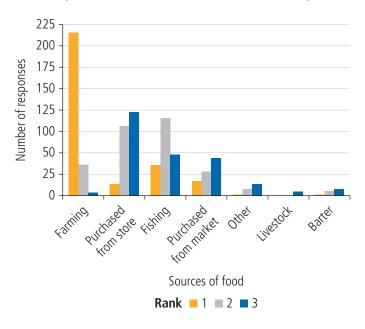
Aquatic foods are a key component of Pacific Island food systems, with communities harvesting diverse edible resources from rivers, lakes, and the ocean, including fish and other aquatic animals and plants. In Solomon Islands, consumption of aquatic foods averages 73 kilograms per person per year (Farmery et al., 2020), compared with the global average of 20 kilograms (WEF, 2022). This high rate of consumption fulfils crucial protein and micronutrient needs. Aguatic foods caught or gathered by women are especially important for providing household and community food security and nutrition (Andres et al, 2019 and Thomas et al, 2021). In addition to fresh fish, fish products with a long shelf life are an important component of the diet, making up about 30 percent of aquatic foods consumed (Farmery et al., 2020). Tinned tuna from the domestic fishery and the locally run SolTuna cannery provides an accessible, non-perishable source of protein.

The WorldFish surveys 2016 and 2018 found that 75 percent of respondents viewed farming as their most important source of **food** (Figure 3.4). Fishing was considered the second most important food source, followed by purchases from the store: 84 percent of respondents stated that they or a household member caught their fish, 27 percent bought it, and 4 percent obtained it via bartering, illustrating the importance of coastal fishing for household

³⁹ Options included: fishing, farming, livestock, trading, casual work, employment, remittance, and other.

consumption. It also highlights that fish workers (processors, distributors, traders, and so on) are key actors in the provision of nutritious food, as almost 30 percent of respondents purchased fish. Areas with specialized fishers supply major market centers such as Honiara, Auki, and Gizo, sometimes with fish sourced from offshore reefs and other areas further away from markets (Brewer, 2011; Rhodes et al., 2019). Respondents also highlighted the importance of food gifts and food sharing between family and friends.

FIGURE 3.4: DISTRIBUTION AND RANKING OF THE THREE MOST IMPORTANT SOURCES OF **FOOD (1 BEING THE MOST IMPORTANT)**



Source: WorldFish survey 2016 and 2018

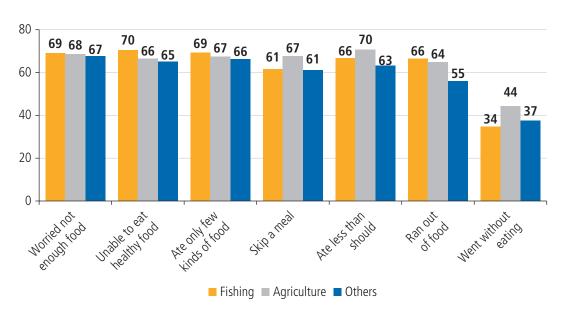
Findings on whether fishing households have better food security than non-fishing households vary by data source40 (Annex 2,

Figure c). WorldFish used the Food Insecurity Experience Survey (FIES) developed by FAO (2018) to capture aspects of hunger and food insecurity among WorldFish survey respondents.41 Most WorldFish survey respondents indicated that food security was adequate. The level of food insecurity reported is similar to results from other surveys at rural locations in Malaita (Albert et al., 2020). Similarly, NAS (2017) data analyzed by the World Bank (also based on the FAO FIES) indicated fishing households may have better food security than non-fishing households (Annex 2, Figure c) Vulnerability Dimensions of Fishing Households). However, these surveys were undertaken before the Covid-19 pandemic, during which time suggestions of skipping meals as a response to hardship emerged (World Vision, 2021). The World Bank HFPS data (2020, 2021, 2022) shows that fishing households had slightly lower levels of food security and diet quality (see Figure 3.5), and they consumed significantly less protein and less staples compared to agriculture and other households. These differences in results on food security could reflect the timing of data collection

⁴⁰ Seasonality can have a significant influence on food insecurity in Solomon Islands, with the northwestern trade winds (koburu) occurring between November/December and March/April, traditionally during the wet season when cyclones are more likely to occur.

Respondents were asked if, in the past four weeks, the following situations happened in their households: (1) there was no food to eat of any kind because of lack of resources; (2) did anyone go to sleep at night hungry; and (3) did anyone go a whole day and night without eating.

FIGURE 3.5: FOOD INSECURITY RISKS OF FISHING HOUSEHOLDS: SECURITY & QUALITY LAST MONTH (%)



Source: WorldFish Survey 2016 and 2018

for the three surveys relative to the Covid-19 pandemic.42

3.5. Vulnerability dimensions of fishing households

Fishing households in Solomon are more likely to be vulnerable and at risk compared to agriculture and other

households. The vulnerability assessment of HFPS data shows that fishing households consistently rank lower across dimensions of deprivation including access to clean water and sanitation, standard of dwellings, and access to healthcare despite having similar demographics in terms of household size, dependency ratio, and age and gender of head of household.⁴³ (Annex 2 provides further details on the vulnerability dimensions of fishing households).1

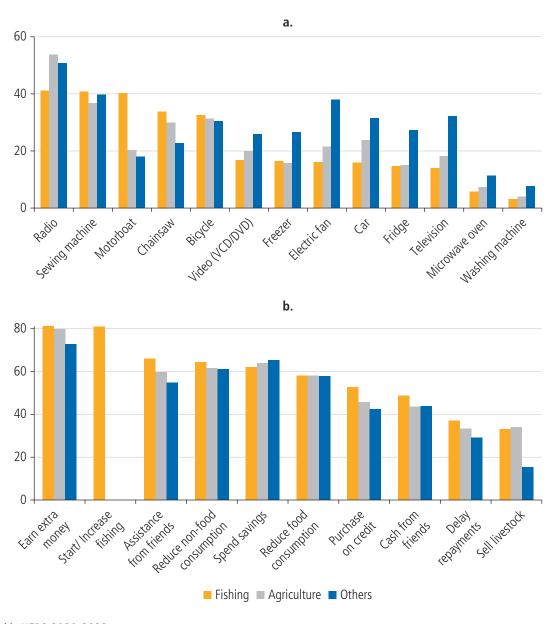
⁴² The World Bank's HPFS collected data during Covid-19, specifically to gather information on the impacts of the pandemic, when fishing activities may have been restricted in some areas and village food systems experienced additional stress due to an influx of urban populations returning to their traditional villages (Eriksson et al., 2020a). The NAS 2017 and WorldFish survey 2016 and 2018 were conducted prior to the global Covid-19 pandemic. Access to fishing activities was not restricted at that time and may have provided a more reliable source of food and income for fishing households than during the pandemic.

⁴³ A vulnerability assessment of fishing households was undertaken by the World Bank adapting, due to data limitations, the dimensions of poverty introduced by Yemtsov (2013) using the NAS 2017 and three waves of the HFPS conducted by the World Bank in 2020-2022. The analysis of both data sets found that households that had a least one person participating regularly in fishing activities were more vulnerable on several indicators as compared to households that did not engage in fishing.

The capacity of households and communities to be prepared for shocks requires access to **information on risks.** Information informs actions needed to minimize exposure and vulnerability (World Bank, 2020). Timely access to information is limited in rural and coastal communities where television, internet, text message, and social media

have limited reach. HFPS survey results found that agricultural and other households. These WorldFish survey results are in line with national studies (SINSO, 2015). They also indicate that most rural people do not have a bank account but do have savings and the ability to borrow—particularly from social networks or informal savings clubs.

FIGURE 3.6: (A) HOUSEHOLD ASSET OWNERSHIP (%); AND (B) HOUSEHOLD COPING **STRATEGIES**



Source (a and b): HFPS 2020-2022

More resilient households tend to have access to savings and assets to create a buffer to draw on after a shock. The HFPS data indicates that fishing households have significantly lower ownership of durable assets, and significantly fewer high-value assets compared to agricultural and other households (Figure 3.6a), which limits their ability to cope with shocks and increases the use of detrimental coping strategies, such as spending savings, reducing food consumption, selling assets, and withdrawing children from school (Figure 3.6b).44

The World Bank's HFPS data further indicates that fishing households experienced greater negative effects from Covid-19 compared to agriculture or other households. Fifty-eight percent of fishing household heads were unable to work due to Covid-related reasons compared to 47 percent of agriculture households and 43 percent of other households (HFPS 2020,2021 & 2022, World Bank). Fishing households primarily coped with Covid-19 by increasing fishing activity to earn extra money (see Figure 3.6b). Both fishing and agriculture households sold livestock (or fish catch) to compensate for cash flow fluctuations and ensure food supply for own consumption (see Figure 3.6b). These coping strategies further limited by low assets and savings—are not adequate to cope with large-scale disasters and shocks. Furthermore, increasing fishing activity is not a viable coping strategy where fish stocks are already depleted. HFPS survey data shows that as economic conditions continued to deteriorate during the pandemic, fishing households reduced their food consumption. Fishing households depended mostly on informal assistance to respond to Covid-19 (Figure 3.6b).

4. Fisheries management and governance

The SIG officially recognizes the rights of indigenous people to manage their coastal resources. 45 About 86 percent of Solomon Islands land is under customary tenure, with tribe and kin networks having jurisdiction over their communal land and sea areas (UNDP, 2021). Access to coastal and inland fisheries and tribally-owned lands for food and other uses is governed by traditional village leaders (chiefs and church leaders).

In 2010, the SIG adopted CBRM nationally as the principal strategy to support coastal fisheries management (MECDM MFMR, 2010). Recently, the SIG reiterated this commitment in the Solomon Islands Community Based Coastal and Marine Resources Management

⁴⁴ Only the 10 most common coping strategies are reported for simplicity. Withdrawing children from school is ranked 13 out of 20.

⁴⁵ Solomon Islands National Fisheries Policy 2019-2029 and Ministry of Fisheries and Marine Resources Corporate Plan 2020-2023.

Strategy 2021–2025 (MECDM and MFMR, 2022). That strategy includes the "integration of Sustainable Livelihood options into CBRM initiatives.... with minimal impacts to marine and coastal ecosystems and associated services."46 The National Environmental Management Strategy (2020-2023) supports CBRM with capacity building, education, and awareness raising. The MFMR has primary responsibility for CBRM implementation in Solomon Islands, ensuring communities are engaged in fisheries species management, Marine Management Areas (MMAs) and Marine Protected Areas (MPAs), supported by MECDM as well as non-governmental, international, and bilateral partners.⁴⁷

CBRM is widely practiced in Pacific Island countries (PICs) where traditional marine Solomon tenure systems are common. Islands communities have a long history of local actions to conserve and manage the use of aquatic living resources. Chiefs, for instance, sometimes prescribe rules for harvests agreed upon at the village level. CBRM⁴⁸ builds on these local renewable natural resources management traditions. CBRM can strengthen foundations of local social capital that in turn support informal SPJ systems to build preparedness and respond to shocks, provide support to community members

facing hardships, and tackle other environmental issues.

Fisheries management plays an essential role in food security. Well-managed fisheries can provide a reliable food supply in times of crisis, including when disasters decrease agricultural production leaving people to rely even more heavily on aquatic foods. Effective fisheries management can support these increased harvests during times of hardship and contribute to poverty reduction by providing a source of cash income and savings.

Women play an important, but often unrecognized, role in fisheries in the Pacific.

Women's participation comprises over 50 percent of gleaning and subsistence fishing (Gomese et. al., 2020; and Lau et. al., 2023). Small-scale fisheries in Solomon Islands involves women, young girls, and the elderly in a variety of activities, including shell collection, fish processing using motu (a traditional Solomon Islands method of cooking), drying fish, or selling fish to the market (SPC, 2023). Women are particularly dependent on coastal fisheries for economic opportunities but remain underrepresented in fisheries decision making (see Ride et al. 2020). They concentrate in lowest value-added segments of fisheries supply chains

⁴⁶ Page 25 of Solomon Islands Community Based Coastal and Marine Resource Management Strategy 2021-2025.

⁴⁷ Solomon Islands' second project under the Pacific Islands Regional Oceanscapes Program (SB PROPER) was initiated in 2022 and includes some project support for livelihoods and development activities at the community level.

⁴⁸ The term CBRM is sometimes used interchangeably with Community-based Fisheries Management (CBFM) although generally CBFM refers more to fisheries management and CBRM encompasses a broader range of coastal resources. SIG policies and strategies refer to CBRM and thus that is the term adopted for this study.

and are paid less than men for the same work. Women have less access than men to financial institutions and credit, further limiting women's economic opportunities in the fisheries sector. Aquatic spaces are often gendered, with men dominating open-sea fisheries and women being confined to inshore activities. Women fishers in one community participating in CBRM noted that the local men did not allow them to fish near the Fish Aggregating Devices (FAD) provided by the government.

There are currently over 500 communities with CBRM at various stages of implementation.

The majority (67 percent) are in the initial stages and yet to draft management plans (Table 4.1).

TABLE 4.1: NUMBER OF COMMUNITIES WITH CBRM AND STAGES OF IMPLEMENTATION

Implementation Stage	Number of Communities	Percent of Total
Level 1 (CBRM concept introduced, training and committee formed)	388	67%
Level 2 (CBRM plan drafted)	71	12%
Level 3 (CBRM plan implementation in process)	77	13%
Missing data	42	7%
Total	578	100%

Source: MFMR program data (2023)

CBRM is embedded within existing systems of community governance and management of a village or a cluster of villages. At village level, chiefs and religious leaders oversee rules or practices that govern behavior of community members, including land and sea use, cultural ceremonies and customs, resolution of local conflicts and permission for outsiders to enter the area and conduct activities (such as implementing a project).

The CBRM Unit staff within the MFMR, along with Provincial Fisheries Officers

based in the nine provinces, facilitate CBRM **implementation**. They provide information and training to community members on the principles of coastal and fisheries management and relevant laws, particularly the 2015 Fisheries Management Act and 2010 Protected Areas Act, as well as on biological limits of species and habitats. The government may contribute small infrastructure and equipment in support of CBRM implementation, such as providing anchored FADs as an alternative place for community members to fish when usual fishing grounds are closed under the CBRM plan (Sukulu, 2020).

Communities form CBRM committees for overall management. They draft a CBRM plan, including maps that define the area of jurisdiction, and identify fisheries management zones and rules that govern sustainable use and access to them.⁴⁹ CBRM rules may include permanently or seasonally closing certain areas to fishing (known as tabu or forbidden areas); enacting size restrictions or banning catch of certain species such as sea cucumber (bêche de mer); forbidding destructive fishing practices such as using dynamite, or certain types of gear; regulating the use of mangrove and shells, and enacting rules for protection of threatened species. CBRM plans also identify enforcement mechanisms, such as fines or punishment for rules violations, usually based on existing customs. CBRM plans have legitimacy at the local level with authority for enforcement only through village systems. There are processes, however, through which CBRM plans can be registered in the official government gazettes. Gazetted CBRM plans have the status of bylaws, providing a legal basis for enforcement.

Anecdotal evidence suggests that successful CBRM depends on good governance by local leaders, which varies in strength and **effectiveness across communities.** There is little detailed data available on how CBRM is being implemented or case studies of well-run CBRM. Enforcement can be a challenge in cases where communities are engaged in conflict, are uncooperative, or when threats or pressure on resources lead to breakdown in management. For example, instances of FADs being vandalized have been reported. CBRM also faces challenges in some communities from over-exploitation related to high market demand for specific products, such as sea cucumber, or impacts on coastal resources from land degradation caused by logging and mining. While fisheries officials can play an enforcement role, the small number of staff and distance between communities, coupled with the lack of updated regulations in some provinces, limits the capacity of communities and fisheries officials to enforce CBRM rules (MFMR and WorldFish, 2022).

⁴⁹ The Fisheries Management Act (2015) includes provisions for Community Fisheries Management Plans. "(1) ... a community fisheries management plan may be drawn up for communities by or on behalf of customary rights holders for a customary rights area or areas in consultation with the Director and Provincial Executive..." Under the Act, 'customary rights area' means the rights that communities of indigenous Solomon Islanders establish over customary areas in the fisheries waters by virtue of historical use and association with such areas through acknowledgement of such rights by traditional leaders." Each Community Fisheries Management Plan shall apply to an area no greater than the extent of the customary rights of the relevant community and in any case shall not extend beyond the outer edge of the reef or fringing reef and the provincial waters in which such rights are exercised, and such area shall be clearly demarcated in the Plan.

5. Social protection and jobs policies and programs

5.1. Overview of SPJ in Solomon Islands

SPJ policies and programs aim to create a resilient and equitable society and are designed to safeguard individuals and communities against economic risks and vulnerabilities. SPJ programs comprise three categories of assistance: social assistance, social insurance, and labor market programs. Social assistance—also known as social safety nets—include cash transfers, school feeding, and targeted food assistance, among others.

Social insurance includes old-age and disability pensions, work injury and unemployment insurance, and other assistance based on members' contributions. Parametric insurance can be designed for fishers and coastal communities who are significantly affected by certain risks, such as hazardous climate events. 50 Labor market programs include skills building and job search and matching programs, and improved labor regulations. SPJ programs, policies, and systems support individuals, households, and societies to manage risk and volatility, helping to protect them from poverty by improving resilience, equity, and opportunity (World Bank, 2012). Table 5.1 provides an overview of the main SPJ programs operating in Solomon Islands.

TABLE 5.1: SOCIAL PROTECTION PROGRAMS IN SOLOMON ISLANDS, 2023

Program and Responsible Ministry/Agency	Target	Coverage and Number of beneficiaries				
Social Insurance						
National Provident Fund	Formal Workers	All provinces (9)131,000 members				
SINPF, CBSI						
YouSave Lo Mobile (Mobile Savings)	Self-employed and informal	All provinces				
voluntary savings scheme	sector workers (including market vendors, farmers, and taxi drivers)	36,087 members				
CBSI, SINPF, PFIP-UNCDF		Membership reached 31,067 members in 2021 (53 percent women)				

⁵⁰ Parametric insurance for SP involves predefined criteria, such as specific weather conditions or economic indicators that would trigger automatic payouts for selected categories of people. The approach aims to swiftly provide financial assistance in times of need, streamlining the claims process and enhancing the efficiency of SP programs. The United Nations Capital Development Fund (UNCDF) and the International Labour Organization (ILO) are working on parametric insurance in Solomon Islands, Fiji, Vanuatu, Samoa, and Tonga under the Pacific Insurance and Climate Adaptation Programme (PICAP). https://climate-insurance.org/projects/pacific-insurance-and-climate-adaptation-programme/

Note: ACOM = Anglican Church of Melanesia; ACOM = Anglican Church of Melanesia; CAUSE = Community Access and Urban Services Enhancement Project; CBSI = Central Bank of Solomon Islands; HCC = Honiara City Council; MID = Ministry of Infrastructure and Development; MPS = Ministry of Public Service; MWYCFA = Ministry of Women, Youth, Children and Family Affairs; NDMO = National Disaster Management Office; PDO = Provincial Disaster Office; PFIP-UNCDF = Pacific Financial Inclusion Programme, United Nations Capital Development Fund; SIG = Solomon Islands Government; NPF = National Provident Fund; WARA = West 'Are'Are Rokotanikeni Association.

Solomon Islands has limited national SPJ systems and coverage and lacks a national social protection policy and strategy. Most people in the country are not covered by any SPJ policies or income-support systems (Prasad and

Kausimae, 2012). Formal SPJ currently consists of the Solomon Islands National Provident Fund (SINPF), a compulsory program for formal sector workers providing retirement savings, maternity, and employment injury benefits to around 136,000

members in 2018.51 SINPF also offers "youSave," a voluntary scheme for the self-employed and informal workers. NGOs provide some in-kind support for people with disabilities and to communities affected by disasters. The WorldFish survey 2016 and 2018 found that only 10 percent of respondents received external assistance from the government or NGOs, and for 84 percent of those respondents, external support provided had not helped them to cope with the impacts of natural disasters. Labor market programs provide skills and vocational training, trainee and apprenticeships, and job placement for students when they complete secondary school; however, since only 12.0 percent of girls and 14.0 percent of boys in Solomon Islands graduate at the end of year 12,52 the reach of these programs is limited.

Quasi-formal SPJ includes community-based savings clubs that support financial inclusion for women through savings and small loans to members in case of health, income, or disaster-related shocks. Public works programs, such as the Community Access and Urban Services Enhancement (CAUSE)53,54 project, provide income support to workers building essential community infrastructure. Labor mobility programs provide

employment opportunities predominantly the agriculture and horticulture sectors for Solomon Islands' workers through the Pacific and Australia Labour Mobility Scheme (PALM) and the Recognized Seasonal Employer Scheme (RSE) in New Zealand.

Adaptive social protection (ASP) programs and delivery systems⁵⁵ are designed to intervene and scale-up operations when a shock occurs. ASP contributes to climate change adaptation by helping to reduce disaster risks and build adaptive capacity. ASP also promotes social and economic inclusion in line with SIG national policies to support those disproportionately disadvantaged by natural disasters and shocks.56

Traditional and informal SP are indigenous forms of resilience in Solomon Islands that provide social safety nets in times of hardship.

For rural households, social assistance—including cash, food and in-kind support—is provided by kin, extended family members, and neighbors. Tribes, clan members, and extended families share resources and responsibilities for social obligations such as marriage and death expenses, school fees,

⁵¹ Solomon Islands National Provident Fund Annual Report 2018

⁵² MEHRD. 2021. National Education Action Plan 2022–2026. Honiara.

⁵³ https://www.worldbank.org/en/news/feature/2023/02/13/-you-can-hear-it-in-their-voices-employment-program -delivering-much-more-than-jobs-in-solomon-islands; https://www.worldbank.org/en/results/2020/11/06 /community-access-and-urban-services-enhancement-project

⁵⁴ https://www.worldbank.org/en/results/2020/11/06/community-access-and-urban-services-enhancement-project

⁵⁵ ASP comprises social protection programs; data and information; institutional arrangements and partnerships; and financing.

⁵⁶ Poor households and women, youth, elderly, persons with disabilities, and children are most often identified as vulnerable in SIG policy (see page 33 National Development Strategy 2016-2035).

and cash for health care and other living expenses through the wantok system, based on reciprocal relationships within their traditional social network. Remittances from urban to rural households also provide a safety net (SINSO, 2019).57 Churches represent another important source of informal SP to help people cope with difficulties. These mechanisms provide communities with strong traditions of self-help and adaptive capacity, but adaptive capacity varies widely and depends on both the nature and duration of the shocks.

The Covid-19 pandemic and recent natural disasters demonstrated adaptive the capacities of households and communities and the important role of traditional and informal SP mechanisms in supporting resilience.58 HFPS data showed that fishing households depended mostly on informal assistance to respond to the negative impacts of Covid-19 but that this type of assistance was insufficient to avoid food insecurity and sale of assets. As the pandemic wore on, the ability to adapt and cope weakened. High levels of internal migration as urban workers returned to their home villages in rural and coastal areas led to increased consumption of local food, including fresh fish, and increased prices for staple foods (SPC, 2021).⁵⁹ The HFPS survey results showed that households relied less on informal safety nets, and household

food insecurity increased, as COVID-19 disruptions continued. Such situations may affect fisheries management, as in the face of food insecurity, disasters, and shocks, people's willingness and ability to uphold fisheries management rules may weaken due to urgent household needs (Sulu et al., 2015).

5.2. Constraints to SPJ **Development and Delivery Systems**

A number of constraints exist to development in Solomon Islands. Constraints include the lack of: (i) a national policy or strategy, (ii) a national social register, (iii) an appropriate service delivery system, and (iv) Management Information Systems (MIS) necessary to efficiently identify and provide timely delivery of SPJ.

Solomon Islands has no national social registry or service delivery system in place. National registers of people with disabilities, high-risk households for extreme weather events, unemployed youth, out-of-school children, and other vulnerable groups do not exist. Limited government finances allocated to social expenditure constrains establishment of SPJ programs. Limited financial and administrative resources for service

⁵⁷ SINSO (2019) Housing and Population Census (2019) Volume 1.

⁵⁸ Ferguson, et al (2022). Local practices and production confer resilience to rural Pacific food systems during the COVID-19 pandemic.

⁵⁹ SPC (2021) Heads of Fisheries Meeting, Information Paper 5 "Synthesis of COVID-19 impacts on fisheries and aquaculture in the Pacific."

delivery, and inadequate information and records for individual or household income impede development of effective SPJ systems.⁶⁰

These limitations are magnified by other barriers to service provision. Geographical factors create challenges as remote and scattered islands are often poorly connected by transport and telecommunications.⁶¹ Formal or quasi-formal types of disaster assistance are scarce and often delayed due to transport challenges and distances from the capital city, Honiara.⁶²

Access to financial services is limited, particularly in rural areas. Due to low numbers of rural and coastal populations with bank accounts, natural disaster assistance is often provided in non-cash transfers, such as supplies, or credit transfers to local stores where people can use vouchers to buy goods. The National Financial Inclusion Strategy (CBSI, 2021) aims to expand financial services to reach 400,000 adults (50 percent women), focusing on communities known to be underserved in terms of coverage and reliability of electricity, mobile phone, and banking services. For example, the recently launched "youSave Lo Mobile" allows members to buy airtime from a mobile

agent and convert it into a "youSave" deposit for withdrawal without the need to travel to a bank (IMF, 2022). However, it is unknown how many fishing households have mobile phones and whether digital payment mechanisms are available to them. Improved telecommunications coverage for coastal communities and outlying islands would increase mobile phone uptake and provide mechanisms for SPJ and emergency cash transfers (IPC, 2021; and Lowe et al., 2023) to promote financial inclusion.

Fishing households are often unable to access financial services or insurance **schemes**. Even when and where financial services exist, fluctuating incomes, production cycles, seasonality, and weather events reduce fishing households' ability to make regular payments, contributions, or deposits. Fishing households around the world experience similar constraints (Bladon et al 2022).63

Some existing national SP programs have the potential to support fishing households.

Social insurance schemes being developed by the Central Bank of Solomon Islands (CBSI), or the SINPF "youSave" scheme designed for informal workers and non-urban households, could be

⁶⁰ The MFMR is currently developed a CBRM database, but detailed information on how many people CBRM reaches, and where they are located, is not yet available to link them with complementary SP programs.

⁶¹ Solomon Islands is among the countries with the lowest fixed-broadband connectivity and highest costs of internet service (UNDP, 2021).

⁶² Some provinces, such as Temotu, are as long as three days' boat journey away and have limited air services.

⁶³ YouSave provides a pension savings fund and a separate general savings fund that can be drawn upon when needed, such as for the payment of school fees (ADB, 2022).

adapted to meet the needs of fishers and farmers, as they provide flexible contribution payment amounts and periods.⁶⁴

- 6. Opportunities to Connect Social Protection and Jobs with Fisheries Management
- 6.1. "Blue Social Protection" for Sustainable Fisheries and Livelihoods through CBRM

"Blue Social Protection" refers to social protection measures specifically tailored for coastal and fishing communities that address the unique challenges faced by households reliant on marine resources for their livelihoods. Blue SP mitigates the impacts of shocks such as fishery closures, natural disasters, or economic downturns, allowing households to meet their basic needs and recover more quickly. Blue SP integrates social protection, climate change adaptation, and disaster risk reduction at policy, program and implementation levels (Bladon et al, 2022 and Costella et al, 2021).

Blue SP can support those disproportionately disadvantaged by impacts of fisheries management. Such support may include compensation for loss of livelihood or help with transitioning to other sources of food and income

until the goals of the new management rules improved and stable catch rates—are achieved. Support can also take the form of facilitating and promoting sustainable livelihood options, provisions of skills training or support for alternative fishing practices or finding other sources of income and food security. SPJ programs should prioritize reducing the causes of household and community vulnerability, providing incentives or compensation to those most severely impacted where appropriate. Youth-focused fisheries projects would help reduce youth unemployment and provide opportunities for youth to engage with marine conservation. For such Blue SP initiatives to succeed, fair and just benefit sharing, equitably distributed to optimize collective benefits, is essential.

Adaptive SP is important for Blue SP in Solomon Islands due to the extreme vulnerability of coastal communities to frequent natural disasters and climate change. No formal SP programs targeting vulnerable populations exist for scale-up in response to shocks. The NDMO coordinates disaster response nationally but does not include risk reduction, recovery phases, or longer-term adaptation. Disaster risk reduction support systems, including early-warning systems and climate-adaptation mechanisms, are needed at the community level to mitigate climate and disaster risks. An ASP system could be established and gradually expanded to meet the needs of the most vulnerable when emergencies occur.

The national CBRM strategy for managing coastal fisheries can provide a framework and program through which SPJ mechanisms could integrate support services for fishing communities. Linking SPJ programs to fishing households, fisheries management, and food security can support vulnerable households to adopt sustainable livelihood and environmental practices—and support financial inclusion, disaster risk management, and post-disaster response—to increase SPJ reach and benefits. At the same time, SPJ mechanisms can improve the effectiveness of CBRM by compensating fishers harmed by CBRM rules and restrictions, incentivizing fishers to participate in fisheries management practices, or by promoting livelihood diversification to reduce pressure on fish resources. In this context, CBRM can be conceptually linked with SP, and vice versa, as outlined in Figure 6.1.

FIGURE 6.1: POTENTIAL VALUE OF SP IN SUPPORTING SUSTAINABLE FISHING AND LIVELIHOODS IN SOLOMON ISLANDS

Social protection programs as mechanisms for supporting sustainable fisheries and livelihoods In Solomon Islands Community Based Resource management (CBRM) is the adopted national strategy for coastal fisheries. There are possible synergies between social protection planning and sustainable fisheries for reduced vulnerability within coastal communities.

Social protection

Community members experience reduced vulnerability with the support of SP programs

CBRM

CBRM is a form of governance over coastal resources focusing on the local identification and prioritisation of necessary actions for fisheries management. CBRM is recognised and supported by national agencies and can be designed to support the delievry of SP programs.

Sustainable Fishing

Management is supported to succeed with the assistance of SP programs that see fisheries as an integral part of reducing vulnerability of coastal communities.

The Solomons Islands could build on the CBRM model and organizational structure to channel SPJ and other interventions to communities, while also strengthening fisheries and resources management for **longer-term sustainability**. The country can promote sustainability and self-reliance through complementary investments in SP and fisheries management, linked to other services to respond

comprehensively to multiple vulnerabilities and risks. An extension of the concept of "CBRM-Plus," a term first coined more than a decade ago (USAID, ADB, 2014 and CTI, 2011), was proposed stakeholder workshops. durina **Participants** recognized the opportunity to integrate a range of services to reduce vulnerability and risks with CBRM's governance, management structure, and community organization (MECM/MFMR, 2010).

A CBRM-Plus approach would recognize and address the multiple causes and consequences of vulnerability in coastal **communities**. While the MFMR is currently scaling up CBRM through information and outreach, it is not linked to other services such as financial inclusion, disaster-risk reduction, or livelihood schemes designed to address multiple vulnerabilities and risks at the community level. Extending CBRM-Plus holds potential for promoting self-reliance and sustainability through improved fisheries management while expanding the reach of SPJ and complementary services in the Solomon Islands context. This would require a comprehensive approach to bundle a range of SPJ interventions and complementary services under one umbrella, including support for ASP and financial services, among others, while leveraging existing CBRM, traditional SP, and social network structures. This approach aligns with the Solomon Islands Community Based Coastal and Marine Resource Management Strategy 2021-2025 to maximize community benefits in terms of livelihoods, food and nutritional security, health and resilient ecosystems, and communities.

SPJ programs can assist fishing households to diversify livelihoods and protect household

income. Such programs can provide skills, access to finance, and support for micro and small enterprises to support fishing households. Such support can assist fishing households to adapt to climate change or find alternative livelihood options when their usual fishing grounds or practices are restricted as part of a fisheries management plan or government regulations. SPJ programs that support development of infrastructure in coastal communities—such as clean water, sewage, and wastewater treatment—could provide local jobs, especially for youth, improve health status in the community, and diversify livelihoods and incomes. SPJ programs could develop skills for labor mobility and provide alternatives to unsustainable fishing practices.

CBRM-Plus could benefit all vulnerable coastal households in a community, not just fishing households. As the stakeholder consultations and key informant interviews made clear, exclusive targeting of activities under CBRM-Plus to fisheries households may not be cost-effective or socially acceptable in most coastal communities. 65 CBRM-Plus would include planning for communities to adapt to climate change and reduce the impact of disasters on fisheries and agriculture, homes and community assets, and

⁶⁵ Most key informants (73 percent) interviewed for this study mentioned vulnerability to climate change and/or disasters as a factor in the way organizations set targets for beneficiaries. Fisheries-dependent households were rarely specifically targeted, although, when prompted, 45 percent of informants said all those communities vulnerable to climate change were coastal and therefore dependent on fisheries. Informants implied or stated directly that fisheries-dependent communities would be reached by universal schemes, province-wide activities, and/or those targeting disaster and climate-change risks.

infrastructure. CBRM plans could include options for alternative livelihoods, including non-fisheries interventions. SPJ activities for job creation, improving livelihoods, and skills development accessible to women, youth and marginalized groups would support better outcomes for both fishing and non-fishing households. Lessons learned from initial CBRM-Plus activities in coastal communities could help inform the potential for future scaling of similar approaches to non-coastal communities. This would require incorporating good data collection and evaluation to facilitate learning and scale-up.

CBRM-Plus should assess opportunities to coordinate with indigenous traditional SP systems, such as the wantok system. It is important to recognize the diversity of these systems across the country's cultures and islands, however. Traditional village governance in some areas delivers a high degree of social assistance and disaster-risk reduction (Ride and Bretherton, 2011). Other communities need start-up programs to encourage risk-reduction activities and to increase trust and capacity for cooperation.

6.2. What is needed to integrate SPJ and **Fisheries Management**

Government support for improved and expanded CBRM would require strengthened scope and outreach, improved data, and increased monitoring and enforcement.

CBRM can strengthen foundations of local social capital that in turn support informal SPJ systems to build preparedness and respond to shocks, provide support to community members facing hardships, and tackle other environmental issues. In the long-run, well-managed coastal fisheries can contribute to the national economy by providing a reliable food supply, particularly in times of crisis, as well as cash income and savings that can play a key role in reducing poverty.

Extending SPJ coverage to fishing households and better aligning SP with fisheries management requires cross-sectoral policy approaches (Annex 1). Policy coordination is needed between key institutions responsible for SPJ-related policies. These include the MFMR, responsible for fisheries management; Ministry for Commerce, Industry and Labour and Immigration (MCILI), responsible for employment policy; the Ministry of Women, Youth, Children and Family Affairs (MWYCFA), responsible for social policy and programs for vulnerable groups; the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) and the National Disaster Management Office (NDMO) responsible for environment protection and disaster response; and other relevant agencies operating at provincial levels. Aligning SPJ policies and programs with national strategies to support fishing households could increase service delivery coherence and minimize costs. There may also be opportunities for the SIG to mobilize domestic resources through fiscal reforms.

An Adaptive Social Protection (ASP) Situational Analysis could be undertaken to assess the current vulnerability status of coastal communities and fishing households to the impacts of frequent natural disasters and climate change. The ASP analysis can identify appropriate SPJ interventions that better integrate Blue SP within ASP frameworks to be included in the forthcoming National Disaster Risk Financing Strategy.

SPJ development policy for fishing households requires improved socioeconomic and demographic data. Coordination and harmonization of data collection and management will be needed to integrate SPJ with fisheries management. Effective fisheries management requires information on the actors (individual fishers and fishworkers, businesses, cooperatives, and collectives), as well as their assets (vessels, gear, and others) and their activities (production, species composition, sale prices, and others). These are typically collected by ministries of fisheries or environment or through provincial administrations.

National statistics and their analysis need to be improved to identify fishing households and their vulnerability more clearly to better design SPJ programs that meet the needs of fishing households and fisheries management. Improving data and analysis on socioeconomic status, employment, household consumption, and food security is critical to better design SPJ programs that meet the needs of fishing households and fisheries management. This includes data on livelihoods, incomes, and expenditures usually collected on households through national surveys—such as labor force surveys (LFS), household income and expenditure surveys (HIES), and population census—to inform policies and programs. These surveys often aggregate fishing households with agriculture and other rural livelihoods, so they rarely accurately reflect the multiple livelihood strategies used by many poor and vulnerable households.

Strong governance and management are needed at both local and national levels to coordinate CBRM with SPJ. Effective leadership, agreement over rules, perceived legitimacy, inclusive processes, transparency, and equity are needed to coordinate and strengthen governance and implementation of both CBRM and SPJ. Effective coordination also depends on SPJ interaction with other social support systems to respond to changing conditions. Governance and management mechanisms for SPJ are needed at the national, broader system level and at the operational and program levels. Consultation workshop participants recommended working through coordination mechanisms existing support community decision through representation and participation of key local stakeholders. Notable examples include government coordination of CBRM for fisheries, NDMO coordination of disaster-risk reduction and response, and Central Bank of Solomon Islands (CBSI) coordination for financial-inclusion activities.

Currently no registration system small-scale fishers in Solomon Islands exists.

To benefit from SPJ programs, fishers and fish workers need to be registered in social registries managed by or accessible to the MWYCFA (for SP), or the NDMO (for emergency response support). If registered, fisheries households can more easily connect to social services, including health care, appropriate SPJ programs, and disaster management and emergency response.

Government financing for formal SPJ is **limited**. Partner organizations and NGOs provide financial support and implementation for some SPJ activities but these are usually limited in scope and scale. Climate and "Blue finance" offer a potential source of funding to integrate SPJ interventions with fisheries management while encouraging responsible environmental stewardship at the village and provincial levels. Natural resource management schemes such as Payments for Ecosystem Services (PES) might be useful to explore, noting that PES mechanisms are primarily designed for natural resource management rather than poverty reduction.

Widening the reach of both formal and informal SP can support coastal communities facing multiple risks and shocks. Formal actions prioritize the extension of services to informal workers, including fishers and farmers, while informal SP can be expanded through strengthening social support networks among communities. Systematic and rigorous monitoring and impact assessments must accompany SPJ programs to improve existing and new policies and programs to address fishing households' priority needs.

6.3. Other considerations for integrating SPJ and Fisheries Management

Other important enabling conditions and risks need to be taken into account to integrate formal and informal SP with CBRM. Some of these are highlighted in this section.

Communities should be involved in developing SPJ beneficiary eligibility criteria in coastal communities. **Participants** in consultation workshops conducted as part of this research indicated a preference that SP interventions target geographical areas with communities threatened by natural disasters or climate change rather than targeting specific individuals or households. This approach aligns with the wantok system of support for extended kin and place-based links, rather than discrete nuclear families. However, when the objective is to provide SPJ as compensation for livelihood loss due to fishing restrictions, or to incentivize or facilitate compliance with fisheries management measures, specific targeting of fisheries households may be appropriate.66 This kind of compensation has been tried in other countries but there are no known examples from Solomon Islands. Community engagement is key to ensure targeting of beneficiaries is socially acceptable, but it should be approached with caution and sensitivity to avoid creating community dissatisfaction or social problems.

⁶⁶ The stakeholder consultation workshops did not specifically discuss using SP interventions such as income support as a means of compensation for direct negative impacts such as income loss as a result of fisheries management measures.

Data constraints must be addressed to better understand the scope of the challenges and to facilitate the design of responses. Limitations of this study include data constraints, particularly socioeconomic data on fishing households. Further work is needed to develop systems for data collection and analysis on coastal fisheries more broadly, and specifically to improve socioeconomic data on households involved in the fisheries sector. Identifying "fishing households" using existing data sets, such as the HFPS and the NAS, is challenging. Some households could fit into more than one group given that multiple livelihood activities are common in Solomon Islands, and fishing can be both a strategy for families to feed themselves and to make profits or make ends meet (Eriksson et al., 2020c). The national census and upcoming household income and expenditure survey (HIES 2024) represent good resources and opportunities for improving data on fisheries households.

Learning from current practitioners in formal and informal SPJ activities indicates the **need to first identify local strengths.** Local sources of strength in Solomon Islands include cultural practices (such as the wantok system), cooperation between church, women, and tribal groups that should be taken into account in designing appropriate support and interventions to maximize the potential of aquatic foods for subsistence, livelihoods, and resilience. It is important to recognize the diversity in: (i) the

functioning of these systems; (ii) their current legitimacy in local governance contexts; and (iii) the origins or practices underlying those systems. Such insights are vital for determining how suitable specific traditional systems are for incorporating innovations—in this case, SP initiatives.

Government and non-government partners recognize the need to help coastal communities manage economic and environmental risks. This has been reflected in key policies and programs to support fisheries management, climate change, disaster risk, and social inclusion, and was discussed during interviews and consultations held as part of this research. Activities could include strengthening CBRM, increasing savings and financial literacy, and supporting climate-change adaptation and disaster-risk reduction in communities. Special measures are needed to ensure marginalized and at-risk groups are not left behind. Coordinated interventions to compensate and incentivize those harmed or threatened by fisheries management restrictions should be explored.

SPJ income generation and livelihood development programs must avoid harm to marine and coastal ecosystems. Proposed SPJ programs should be based on local analysis of: (i) differential utilization of coastal areas by men and women, including different access to and use of resources;⁶⁷ (ii) value chains and available

⁶⁷ Krushelnytska O. 2016. Toward gender-equitable fisheries management in Solomon Islands. SPC Women in Fisheries Information Bulletin 27:29–45.

marketing and distribution networks (Mauli et al, 2023); and (iii) information, participation, and decision-making methods men and women use.⁶⁸

SPJ program options for income generation and livelihood diversification in coastal communities

Several SPJ program options exist for income generation and livelihood diversification to support household food security, nutrition, and income. These could include options for both men and women such as:

- public works programs contributing to marine environment rehabilitation and/or small-scale infrastructure in fishing communities focused on coastal and marine resources, or critical community and household water, sanitation, and hygiene facilities;
- skills training such as engine mechanics to maintain fishing assets;
- vocational training scholarships linked to labor market opportunities (including labor mobility schemes) for youth;
- analysis of marine resource value chains to increase fishing households' incomes (Kruijssen et al., 2013);
- conditional cash transfers to reduce secondary school dropout rates and cover transport costs; and
- financial inclusion for fishing households through the "youSave" scheme or savings clubs, with support provided to help beneficiaries obtain identity documents required for accessing the banking system.

7. Conclusions, Recommendations, and Next Steps

This section offers some conclusions and summarizes recommended actions and next steps to address vulnerability in coastal fishing communities and sustainability of fisheries resources in Solomon Islands. The integration of SPJ with fisheries management recognizes the potential synergies between social protection and environmental conservation efforts, emphasizing the importance of community participation, empowerment, and adaptive governance in achieving national sustainable development outcomes. The SIG should lead policy actions linking CBRM with SPJ and complementary interventions, focusing on reducing deprivations, improving livelihoods, and promoting effective and inclusive fisheries management.

Linking SPJ and fisheries management has the potential to create a mutually beneficial circle for reducing communities' vulnerability.

SPJ support to fishing communities would enable fisheries management actions that improve long-term fish stocks, in turn promoting food security and improving livelihoods, with benefits to the national economy. Fisheries management measures could include financial mechanisms to capture part of the increased revenues gained from well-managed, more productive fisheries,

particularly in the case of high-value species. Such mechanisms could include license or quota fees to be transferred to a compensation fund, perhaps through youSave or a similar financial mechanism that would provide compensation to fishers negatively impacted by management measures.

Coordinated SPJ and Disaster Risk Reduction (DRR) policies and programs are essential **for coastal communities.** These communities experience food insecurity and livelihood losses caused by seasonal climatic events such as cyclones, floods and droughts. SPJ instruments—including cash transfers, insurance products, pension schemes and public employment programs—can support households particularly vulnerable to both ongoing and acute climate change threats. Adaptive

SPJ can support vulnerable fishing households by providing cash transfers and support to increase their capacity to prepare for, cope with, and adapt to shocks before, during, and after they occur. CBRM could develop an ASP support mechanism to increase response effectiveness during and after disasters, to coordinate identification of needs and delivery of SPJ with complementary services, and to support fisheries management measures. Opportunities to integrate SPJ mechanisms should be included in the the forthcoming National Disaster Risk Financing Strategy.

Table 7.1 summarizes challenges and recommendations for integrating fisheries management with social protection identified through this case study.

TABLE 7.1: SUMMARY OF CHALLENGES AND RECOMMENDATIONS FOR INTEGRATING FISHERIES MANAGEMENT AND SOCIAL PROTECTION IN SOLOMON ISLANDS

	Challenges to sustainable livelihoods for coastal communities	Recommendations
1	Multiple disaster and climate-change risks compounded by low incomes, assets, and cash flow within coastal communities	Integrate SPJ support through CBRM-Plus: Strengthen implementation of CBRM and integrate services (food security, livelihood assistance, SPJ) through CBRM's community organization to support resource management and address vulnerability of coastal communities and fishing households.
		Integrate disaster-risk reduction and response with SPJ: Use existing NDMO coordination and service-delivery mechanisms to integrate SPJ delivery with efforts of government and non-governmental agencies to address risks and respond to disasters and emergencies in coastal communities.
2	Fisheries management practices, such as restrictions on areas or gears, may have negative impacts on food security and incomes for affected fishing households	Explore opportunities to integrate SPJ mechanisms with fisheries management measures through CBRM-Plus to compensate fishing communities and households for negative impacts from, and/or incentivize compliance with, fisheries management measures. Consider best practices and lessons learned from applying this approach in other countries.

	Challen and the late	D
	Challenges to sustainable livelihoods for coastal	Recommendations
	communities	
3	Exclusion of women, people with disabilities, elderly and youth and those without customary land rights	Implement gender and social inclusion through policy and practices: Pay particular attention to inclusion of vulnerable groups at the local level, and implementation at the national level, through policy and capacity building. Facilitate use of inclusive methods, particularly those appropriate for women (Kleiber et al. 2019), youth, elderly, persons with disabilities (PWDs), and families without customary land rights. Ensure that SPJ mechanisms promote equity. Assess CBRM and CBFM policy and procedures for community-based equity of access and inclusive decision making; and assess their implications for participation and access to resources and benefits by vulnerable members (women, youth, PWDs).
		The Solomon Islands' context requires a locally informed approach for integrating SPJ and fisheries management. The country recognizes indigenous rights to manage coastal resources through CBRM and has strong traditions of informal social protection. Blue SP programs and mechanisms need to take these existing indigenous systems into account and involve local communities in design and implementation to ensure smooth integration and acceptability.
4	Food insecurity and climate change threats to food systems	Promote resilient indigenous food systems: Identify indigenous agricultural and aquatic foods, practices, and customs that promote resilience; customize support to build on these strengths and promote foods resilient to climate change and disasters; support cross-sector collaboration for advocacy and training in integrated and nutrition-sensitive food systems approaches.
5	Low SPJ coverage nationally, particularly formal, with informal often lacking data about reach and scope	Investment in SPJ (formal and informal): Follow a graduated model to: (i) expand vulnerable fishing households' access to existing formal SPJ schemes, such as youSave, and develop new mechanisms to increase food security, income, and assets while ensuring sustainable use of fishing resources; (ii) broaden livelihood opportunities for youth through re-skilling, public employment programs and linking to labor mobility schemes; (iii) strengthen community-based resilience (for example, food security and livelihoods approaches and ASP); (iv) engage providers of informal SP such as wantok (kin), churches, savings clubs, CBRM committees, and other groups that enable local and inclusive decision making to help identify vulnerable households for SPJ programs; (v) invest in social registries and MIS to facilitate oversight of SPJ programs and establish links with data and registries, where they exist, for fisheries and other services and sectors, to increase efficiency of SPJ program delivery and more effective and equitable outcomes.

	Challenges to sustainable livelihoods for coastal communities	Recommendations
6	High degrees of vulnerability, and dependence on coastal resources	Develop appropriate approaches for beneficiary targeting: For some interventions, targeting whole communities and villages may be the most efficient and socially acceptable way to address poverty and climate and environmental risks, such as sea level rise, while strengthening community cohesion. Consider using community approaches to identify households and individuals most in need of SPJ interventions, including for addressing impacts of fisheries management measures, where appropriate. Improve data collection to better identify fishing households, estimate the level of threats and benefits stemming from management measures, and establish SPJ support interventions.
7	Lack of financial inclusion, literacy and services in coastal communities	Promote financial inclusion: Support savings and credit initiatives (savings clubs or schemes for informal sector such as youSave") alongside market-access strategies to leverage income generation for members. Develop financial services with reach to rural areas, including to women. Expand social insurance coverage for self-employed and informal workers and explore insurance options such as parametric insurance for the fisheries sector.
8	Market demand creates overfishing and economic underperformance	Develop programs to offset livelihood loss caused by fisheries management: Devise programs for social assistance such as cash transfers, insurance, livelihood diversification or adapt Payment for Ecosystem Services (PES) specifically tailored to communities dependent on resources that are known to be vulnerable to overfishing. To ensure links with sustainability, develop these in conjunction with finance schemes that reward effective management with income streams for communities, or link to SP with potential for co-payment of contributions to community members (such as to youSave/SINPF accounts).
9	Institutional silos of government activities and planning on discrete topic areas; lack of experience with universal or geographically wide responses	Work through current frameworks and coordinating networks to integrate CBRM with SPJ: Work through trusted institutions with some experience with universal programs—for example, CBSI and NPF for income and insurance, MFMR and MECDM for CBRM scaling, NDMO for disaster-risk reduction and specific disaster schemes coordination. This coordination will reduce the risk of siloed programs while encouraging synergy between institutions.

	Challenges to sustainable livelihoods for coastal communities	Recommendations
10	Inadequate data on fisheries and fishing households, including the absence of a social registry of vulnerable households or registration of fishers or fishing assets in the coastal fisheries sector, constraints to effective fisheries management and design of appropriate SPJ programs and interventions to reduce vulnerability	Improve data collection, analysis and information management on fisheries and fishing households: Building on the 2019 Census, ensure future national surveys (including HIES, DHS, MICS) collect representative socioeconomic data on fishing households including information on fishing practices, aquaculture, incomes and expenditures, fisheries value chains and alternative livelihoods, and ensure data is disaggregated by gender for detailed analysis. Such data should be transparent and accessible, included in annual reports and utilized to inform policy and MFMR activities. Specific data on fisheries and people with disabilities, youth, and women are lacking, and needs to be prioritized for future research. Create a social registry of vulnerable households and registration of fishers and fishing assets (such as boats and engines) to enable coordinated delivery of government programs and services. Government ministries and agencies and service providers, including MFMR, CBSI, NDMO, NGOs and others, could use the registration data to develop an integrated MIS (IMIS ⁶⁹) to better support service delivery and assess policy and program outcomes.

Next steps towards integration of SPJ and fisheries management include working through existing networks or collaborative schemes, particularly on financial inclusion, disasters, and CBRM. The aim should be to encourage integration of complementary services, such as through CBRM-Plus, for greater impact. Identifying and targeting SPJ to vulnerable segments of the population would represent progress towards addressing the country's widespread vulnerability, and would provide a base for rapid geographic scale-up in case of an emergency.

It is important to continue analytical work, such as exploring options for adaptive

SPJ and assessment of data collection and information management capacity for both fisheries management and SPJ. The aim should be to identify a roadmap towards the establishment and gradual expansion of a sustainable, adaptive SPJ system and more effective fisheries management. This analytical work should look to identify resources for investment in formal and informal SPJ and also explore intervention options—such as social insurance, social assistance, skills training, or financial incentive programs—to offset livelihood loss caused by fisheries management measures, particularly in areas relying on unsustainable fishing. This should include an assessment of the potential and feasibility for a CBRM-Plus model

⁶⁹ MIS are usually designed for one program, whereas an IMIS links multiple programs to each other to ensure better coordination between programs, links between beneficiaries and the provision of additional complementary services.

address household-level and community vulnerabilities through, for example, assessing fishing access, assets and/or resources by poorer members of the community, and how these mechanisms are perceived at the community level.

Finally, it is essential to remember that all actions need to consider indigenous agricultural and aquatic foods, practices, customs that promote resilience.

Any interventions must ensure environmental sustainability and social inclusion, particularly the active involvement of women, youth, and people with disabilities. Integrating support by considering SPJ, financial inclusion, climate, disaster risk reduction (DRR), and fisheries management has the potential to improve both the lives of people in coastal communities in Solomon Islands and the sustainability of the fisheries and coastal resources upon which they depend.

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Annexes

ANNEX 1: KEY SIG POLICY DOCUMENTS

Ministry or Institution Strategy or Policy Document	Objectives/Goals
Cabinet	"Improving the Social and Economic Livelihoods of all Solomon Islanders."
National Development Strategy 2016 to 2035	Objective 2: Poverty alleviated across the whole of the Solomon Islands, basic needs addressed and food security improved; benefits of development more equitably distributed;
	Objective 4: Resilient and environmentally sustainable development with effective disaster risk management, response and recovery; "[] the conservation of marine resources needs to be encouraged to ensure sustainable harvesting" (p.17).
MECDM	Increasing the sustainable production and productivity of agricultural and
NDMO	fisheries, including climate change adaptation and disaster risk reduction
National Environment Management Strategy (NEMS) 2020-2023	Improve the sustainability of livelihoods and nutrition and "maximize livelihood and economic benefits from sustainable fisheries management and development." (p.18).

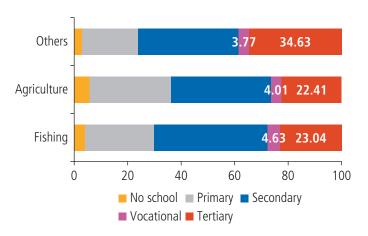
Ministry or Institution Strategy or Policy Document	Objectives/Goals
MHMS, MALD, MFMR and MEHRD	Improve and strengthen the contribution of small-scale fisheries to alleviate
National Food Security, Food Safety	poverty, food and nutrition security.
and Nutrition Policy 2019 – 2023	Increase household consumption of fresh fish from 31kg per annum in 2015 to 36kg by 2023.
	Strengthening emergency preparedness and responsiveness
	Highlights critical role that fisheries perform in reducing malnutrition and increasing food security (providing a primary source of protein).
MFMR	Recognizes the necessity of a sustainable aquaculture sector for food security,
Aquaculture Management and Development Plan 2018–2023 (2018)	livelihoods and social and economic needs.
MFMR and MECMDM	Marine and coastal resources are healthy, resilient and are managed in a
Solomon Islands Community Based Coastal and Marine Resource Management Strategy 2021 - 2025	sustainable way that contributes to the socio-economic needs and food security of all Solomon Islanders. Provide effective services to scale up CBRM, ensuring sustainable management and development of fisheries and aquatic resources. Integration of Sustainable Livelihood options into CBRM initiatives
MCILI	"[] at least 75% of youths who are not in educational institutions have
National Youth Policy 2017-2030	secure career pathways through formal or informal employment opportunities, entrepreneurship and other innovative economic opportunities to improve their livelihoods and quality of life."(p.16)
Strategic Framework for Youth Development and Empowerment in Solomon Islands (2017)	Recognizing the lack of employment and entrepreneurship opportunities for youth.
Minister for Foreign Affairs and	Developing new employment opportunities for Solomon Islanders
External Trade (MFAET)	Increasing international earnings for investment in the domestic economy
Solomon Islands Labour Mobility Policy Framework	Developing workforce skills for entrepreneurship and the creation of new industry.
Solomon Islands Labour Mobility Strategy 2019-2023	The strategy aims for over 5,500 Solomon Islanders to benefit from international work experience each year by 2023.
Ministry of Education and Human Resource Development (MEHRD)	Extend equitable access and ensure the quality and relevance of secondary education to deliver both work-related skills and transferable skills, including entrepreneurial and information and communications technology (ICT) skills
Education Strategic Framework 2016-2030	Increase the number of youths who have relevant skills for employment, decent
Solomon Islands Tertiary	jobs, and entrepreneurship
Education and Skills Authority (SITESA)	Strengthen multi-stakeholder approaches to extend adult literacy and gradually introduce lifelong learning approaches to education and training
National Inclusive Education Policy 2022-2026	Develop tertiary education and skills training to better match education and training to labor force needs.

Ministry or Institution Strategy or Policy Document	Objectives/Goals
MWYCFA Family Protection Act of 2014, the Child Family Welfare Act of 2017 MHMS National Health Strategic Plan (NHSP) covers the period 2022-2031 "A Healthy Future for All Solomon	To ensure the safety and protection of all persons who experience or witness domestic violence; and to provide support and redress for all victims of domestic violence; provisions for the care and protection of children Targets universal health access to preventative, curative, and rehabilitative services.
Islanders" MHMS National Disability Development Policy and National Disability Inclusive Development Policy 2023-2030 Rehabilitation Strategic Plan 2022 -2031	Ensure Solomon Islanders living with various forms of disabilities can live a normal life, access services, and be able to participate meaningfully in the development of the country Collectively ensure, promote and advocate that our people with disabilities can access social services, health and education, employment, and job opportunities so they can equally participate in, and together advocate an end to harmful practices, discrimination, marginalization, and exclusion of people with disabilities.
CBSI National Financial Inclusion Strategy (NFIS)	By 2025 increase the number of adults with access to financial services to 400,000 (of which 50% should be women) and to increase to 1,155 the number of points where people can access these services.
Ministry of Police, National Security and Correctional Service National Security Strategy October 2020	The benefits of development must be more equitably distributed to ensure that all men and women, particularly the vulnerable, have equal rights to economic resources as well as access to essential services. Our resources, both inland and marine resources are our valuable commodity that must be protected. In the face of increasing population and the global demand for raw materials and sea resource, Solomon Islands must be cautioned about the use and harvesting of its resources. Security of our resources is fundamental to maintaining, sustaining and improving our quality of life.
MFMR Pacific Framework for Action on Scaling up Community-based Fisheries Management: 2021–2025 (SPC 2021) the Noumea Strategy Ministry of Commerce, Industry, Labout development in 2023).	The equitable access to benefits and inclusive decision-making within communities, Diverse livelihoods reducing pressure on fisheries resources, enhancing community incomes and improving fisheries management. r and Immigration (MCILI) - National Employment Policy (currently under

ANNEX 2: VULNERABILITY DIMENSIONS OF FISHING HOUSEHOLDS

Both fishing and agriculture household heads have lower education attainment compared to other households, with lower literacy levels also found in most rural areas (see figure 2a). Fishing and agriculture household heads are less likely to have completed tertiary education (28 percent among fishing households compared to 38 percent among non-fishing households).

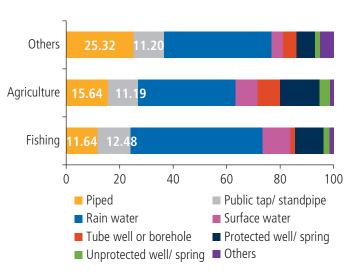
Figure 2a. Education level of household head (%), HFPS 2020-2022



Fishing households have limited access to safe water and sanitation. Sixty-seven percent of the total population have access to basic water services, but only 59 percent of the rural/coastal population, while 78 percent in urban areas have basic sanitation but only 21 percent in rural areas (SIG, 2023). The World Bank's HFPS indicate that 39 percent of fishing households use shared toilets compared to 30 percent of agriculture

households and 22 percent of other households. Most fishing households rely predominantly on rainwater for drinking: only about 12 percent of fishing households have access to piped water or a public tap or standpipe, compared to 27 percent of agriculture households and 37 percent of other households (see figure 2b).

Figure 2b. Drinking water sources (%), HFPS 2020-2022



The homes of fishing households are made of lower quality and less permanent materials such as wood planks or shingles and cane or palm leaves and trunks compared to other households in the HFPS survey. Only 15 percent of fishing households' homes have walls constructed from cement, brick, stone or fibro compared to 23 percent of agriculture households and 32 percent of other households.

Figure 2c. Food security access & quality (last month) (%), NAS 2017

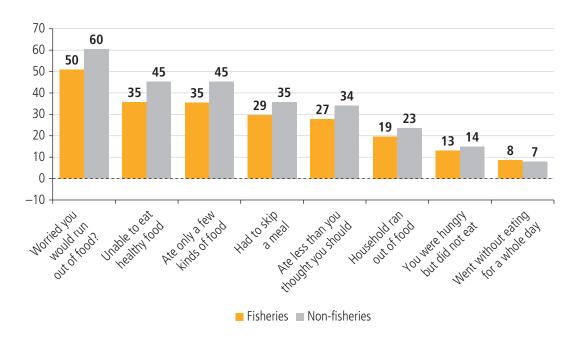
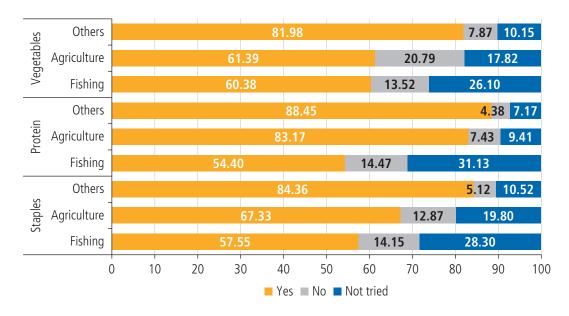


Figure 2d. Food access last week (%), HFPS 2020-2022



Fishing households expressed higher levels of concern about accessing sufficient food and reducing quality of food consumed.

Figure 2e. Dwelling conditions, wall material (%), HFPS 2020-2022

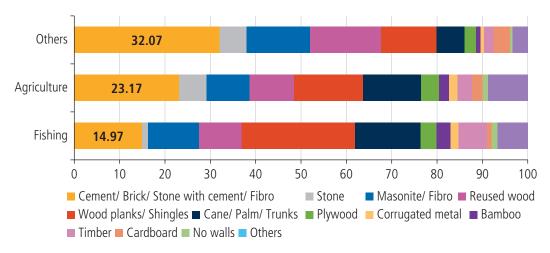
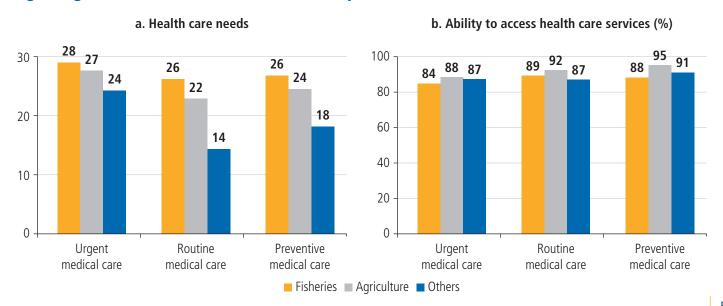


Figure 2f. Dwelling conditions, floor material (%), HFPS 2020-2022



HFPS data indicates that fishing households have higher needs for health care but lower access to health services compared to agriculture and other households (see Figure below).

Figure 2g. (a) Health care needs; and (b) Ability to access health care services (%)



The ratio of fishing households with members needing urgent medical care in the past month is 29 percent (similar to agriculture households) compared to 24 percent for other households (see figure g.(a)).

Routine and preventive medical care needs in the past month were about 12 and 9 percentage points higher for fishing households compared to agriculture households (see figure g.(b))

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