Food and nutrition security policy effectiveness analysis for the Solomon Islands

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The views expressed in this information product are those of the authors and do not necessarily reflect the views of the Food and Agriculture Organization of the United Nations, or those of the European Union.

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List of acronyms

ALP Agriculture and Livestock Sector Policy

BMI Body mass index

DALY Disability-adjusted life year

DFAT Department of Foreign Affairs and Trade, Australia

DHS Demographic Health Survey

FAO Food and Agriculture Organization of the United Nations

FFNC Food Fortification National Committee

FIRST Food and Nutrition Security Impact, Resilience, Sustainability and Transformation

FNS Food and Nutritional Security
GDP Gross domestic product
HCM Honiara Central Market

HIES Household Income and Expenditure Survey

HINI High-Impact Nutrient Interventions

HPS Health Promoting Schools

ICT Information and communications technology ICN2 Second International Conference on Nutrition

IDA Iron deficiency anaemia

JICA Japan International Cooperation Agency

KGA Kastom Gaden Association

KOICA Korea International Cooperation Agency

KPSI Kokonut Pacific Solomon Islands

LDC Least Developed Country

LKI Lokol Kaikai Initiative (Local food initiative)
MAL Ministry of Agriculture and Livestock

MCILI Ministry of Commerce, Industries, Labour and Immigration

MDGs Millennium Development Goals

MDPAC Ministry of Development Planning and Aid Coordination
MEHRD Ministry of Education and Human Resources Department

MFAET Ministry of Foreign Affairs and External Trade
MFMR Ministry of Fisheries and Marine Resources
MHMS Ministry of Health and Medical Services

MOFT Ministry of Finance and Trade

MWYCA Ministry for Women, Youth, Children and Family Affairs

NBSAP National Biodiversity Strategy and Action Plan

NCD Non-communicable disease
NDS National Development Strategy
NHSP National Health Strategic Plan

NFSFSNP National Food Security, Food Safety and Nutrition Policy
PHAMA Pacific Horticultural and Agricultural Market Access Program

PIC Pacific Island Countries
PMO Prime Minister's Office

RAMSI Regional Assistance Mission to Solomon Islands

RDP Rural Development Programme

SBD Solomon Island Dollars

SDGs Sustainable Development Goals
SINU Solomon Islands National University
SPC The Secretariat of Pacific Communities

SSB Sugar-sweetened beverage

STEPS STEPwise approach to surveillance

TTM Taiwan Technical Mission
UHC Universal Health Coverage

UNDP United Nations Development Programme

UNICEF United Nations Children's Fund

WHO World Health Organization of the United Nations

YLL Years of life lost

Executive summary

Boosting Food and Nutritional Security (FNS) in the Solomon Islands is a priority action of the Solomon Islands Government. This analysis examines policy conditions for food and nutrition security, balancing political priorities, available resources, and the interests and capacities of policy officers and implementers. The aims of this report are to: present the findings of a Policy Effectiveness Analysis on bottlenecks to the implementation capacities of FNS policies, programmes and budget priorities and allocation and political economy factors that influence realism of the policy/programming; and identify a framework of suitable actions, mindful of equity considerations, which can feasibly be scaled up or adopted in the Solomon Islands.

This food and nutrition diagnostic exercise applies the FAO FIRST Policy Effectiveness Tool. FAO FIRST (Food and Nutrition Security Impact, Resilience, Sustainability and Transformation) is a partnership between FAO and the European Union, and the tool explores factors that may hamper the achievement of the SDG2 food security and nutrition targets, whether FAO is supporting the right set of actions, in the right places, for the right groups of people, how best to have a real impact on the right groups of people, and to identify the priority actions (realistic, feasible and impactful) for the allocation of scarce public sector resources.

The findings of this report are based on a review of current policies, key stakeholders and policy indicators, together with an in-depth consultation process in the Solomon Islands. Together these processes involved ten targeted stakeholder consultation meetings, two provincial workshops (Guadalcanal and Western Province), two workshops targeting agriculture sector stakeholders, and a large multisectoral Food and Nutrition Security Diagnostic Workshop. Data collection and analysis were undertaken with reference to the objectives of the consultancy, and underpinned by constructs from a Potter and Brough's framework, Systemic Capacity Building: a hierarchy of needs. A second consultation process was undertaken to present findings of this analysis to key stakeholders for validation, and to workshop a range of policy recommendations with respect to leadership and governance, maximising human and financial capital for nutrition, and establishing higher priority policies to form the basis of initial efforts towards addressing food and nutrition security.

The Solomon Islands lies east of Papua New Guinea and northwest of Vanuatu and stretches for nearly 1500 km across the South West Pacific. Average life expectancy for Solomon Islanders is 70 years for men and 73 years for women. Between 2000 and 2014 the country made good progress on reducing child mortality and on extending access to education and promoting health. However, the Solomon Islands faces some major challenges in the prevention and control of both communicable and noncommunicable disease (NCD), as well as in urban and environmental health. The agriculture and fisheries sectors in the Solomon Islands are significant to both livelihoods and the economy. However, difficulties with transporting foods and lack of storage facilities represent a major challenge for farmers in the Solomon Islands, significantly driving up post-harvest losses and limiting economic benefits for farmers. Market access also differs significantly for domestic versus export-oriented production in the Solomon Islands.

Key drivers of food insecurity in the Solomon Islands are affordability of food, access to markets and access to land. Rapid urban population growth in Honiara and changing patterns of food consumption have created conditions in which food insecurity is considered to be part of life in Honiara. In addition, the nutrition transition experienced by the Solomon Islands has seen consumption of traditional fruit, vegetables and root crops replaced by a reliance on imported and tinned foods, often high in fat, salt

and sugar. Historical factors contributing to current food and nutrition insecurity include low levels of development and ethnic tensions.

NCDs are the leading cause of mortality in the Solomon Islands, where they account for around 69 percent of all deaths. The top four risk factors for death and disability in the Solomon Islands are all related to diet, specifically high fasting blood glucose, malnutrition, high body mass index (BMI) and other dietary risks. Undernutrition (stunting, wasting, underweight) in early childhood (under five years) is a significant problem for Solomon Islanders, particularly in rural areas. Micronutrient deficiencies also remain a concern.

The Solomon Islands National Development Strategy 2016–2035 is the Solomon Islands' high-level plan for achieving the SDGs and improving the social and economic livelihoods of Solomon Islanders. Promoting the growth and consumption of a healthy, sustainable diet is recognised to contribute to Objective 2 – poverty reduction; Objective 3 – improve health services; and Objective 4 – to nurture environmental sustainability and recovery. The Solomon Islands has implemented a number of complementary food and nutrition programmes aimed at reorienting the food system and food environments such that they positively influence consumer behaviour. Our analysis identified guiding policy frameworks for food and nutrition action as the National Food Security, Food Safety and Nutrition Policy 2019-2023, the Lokol Kaikai Initiative 2019-2023, the Multisectoral National NCD Strategic Plan 2019-2023 and rice and flour fortification policies. Policies from agriculture, health, gender, youth, education, trade, commerce, fisheries and sustainability also have the potential to support policy coherence for nutrition across key government sectors. In particular, this consultation identified policy approaches to improve food supply chains and food environments, including opportunities to support producers and the private sector with adopting technologies that can assist in scaling up food production, packaging, marketing and distribution. It also examined opportunities for policy to overcome drivers of food and nutrition insecurity, influence consumer choices and protect child health.

To achieve strong policy support for food and nutrition security, it will be essential to develop mechanisms and structures for the implementation of food and nutrition security strategies, and clear actor mandates and capacities related to food and nutrition security. Challenges to doing so were identified as low levels of capacity across sectors, limited engagement with the private sector, historically low food and nutrition leadership and political support, and insufficient governance mechanisms and resourcing for nutrition and food security implementation. In addition, data and reporting on both successful and poorly implemented initiatives will be critical for advocating and improving policy and resource allocation decisions.

This review established that the frameworks currently overarching the food and nutrition security space present a fairly comprehensive set of strategies to lift production systems, improve food environments and influence consumer behaviour. These policies, which tend to focus on nutrition education and knowledge generation, are well complemented by agriculture sector policies that promote food production, processing and distribution. The diagnostic exercise identified a number of opportunities to improve food systems and food environments more comprehensively such that they promote health and improve farmer livelihoods. Greater policy attention to issues around food (agriculture and fish) supply chains, and incentivising the scale-up of production and processing of local foods would deliver both health and economic benefits. Developing a stronger whole-of-government focus on value chains may help to harness the mandates and expertise of other ministries and agencies, and provide implementing partners an opportunity to operationalise the multisectoral

approach. Such measures would be complemented by the proposed development of nutrient standards that can be used to underpin food environment-oriented measures, including: restrictions around the marketing of unhealthy foods, promoting innovative approaches that incentivise food producers to formulate, market and distribute nutrient-rich locally processed foods, and to restrict the use of sugar, sodium and unhealthy fats in food manufacturing and public food procurement (e.g. catering, school meal programmes).

The in-depth analysis presented in this report indicates that improving dietary quality should be a key priority for the Solomon Islands Government. In particular, there is a need to reorient food supply chains and food environments by adopting nutrition-sensitive policy initiatives that facilitate increased production and efficient value chains, and improve the appeal of locally produced foods. This would align well with the country's goals to foster import substitution, achieve food sovereignty, and protect traditional healthy foods. Key strategies to achieve this were identified as fostering multisectoral engagement and accountability for food and nutrition security commitments, scaling up implementation of existing policy frameworks, collecting and sharing data on problems, progress, achievements and outcomes, and undertaking a process of prioritisation against existing policy frameworks.

1. Introduction to the country-level policy effectiveness analysis for the Solomon Islands

Boosting Food and Nutritional Security (FNS) and sustainable agriculture in the Solomon Islands is a priority action of the Solomon Islands Government¹ and the Ministry of Agriculture and Livestock (MAL).² The reduction of non-communicable diseases (NCDs) and undernutrition are key goals of the Solomon Islands National Development Strategy, and principal priorities of the National Health Strategic Plan.³

Nutrition and food insecurity exist due to inequities in the distribution of food, and people's access to appropriate resources, credit, information and supply.⁴ The Solomon Islands has, over many years, worked to implement a series of complementary food and nutrition programmes aimed at reorienting the food system and food environments such that they positively influence consumer behaviour.

This analysis examines policy conditions for food and nutrition security, balancing political priorities, available resources, and the interests and capacities of policy officers and implementers. While the design of technically sound policies and programmes to address food and nutrition security is essential, operationalising them is a complex and ongoing process. Adopting food and nutrition policy approaches into systems, and maintaining the political, resourcing and technical commitments required to achieve the intended outcomes is challenging. Policy officers and implementers may struggle to translate political commitment into concrete plans and activities, or be constrained by systemic and organisational capacity issues. The multisectoral nature of food and nutrition security means that policy solutions require the commitment and mobilisation of numerous government sectors, stakeholders and communities, each with varying capacities (resources, knowledge and skills) and their own priorities and interests.

The timing of this analysis in the Solomon Islands coincides with the review and redesign of a number of key sectoral plans (agriculture and health), as well as the initiation of key policy frameworks for food and nutrition security. The analysis offers a unique opportunity for leaders and stakeholders to contribute to an understanding of the factors affecting sustained policy activity and ensure that policy solutions are adopted in a way that is appropriate and realistic for the Solomon Islands context. It will

¹ Solomon Islands Government. 2016. National Development Strategy 2016-2035, Ministry of Development Planning and Aid Coordination, Honiara, Solomon Islands.

² Food and Agriculture Organization (FAO). 2012. Pacific Multi-Country CPF Document 2013–2017. Available from: www.fao.org/3/a-az134e.pdf esp. pp124-134

³ Solomon Islands Government. 2016. National Health Strategic Plan 2016-2020, Ministry of Health and Medical Services, Honiara. Solomon Islands.

⁴ Food and Agriculture Organization (FAO). 2017. Strengthening sector policies for better food security and nutrition results: Political economy analysis. Kennedy, G., Nantel, G., Shetty, P. 2004. In: Globalization of food systems in developing countries: a synthesis of country case studies. FAO.

⁵ Pelletier, D.L., Frongillo, E.A., Gervais, S., Hoey, L., Menon, P., Ngo, T., Stoltzfus, R.J., Ahmed, A.M.S. & Ahmed, T. 2011. Nutrition agenda setting, policy formulation and implementation: lessons from the Mainstreaming Nutrition Initiative, *Health Policy and Planning*, 27(1): 19–31.

⁶ Spillane, J.P., Reiser, B.J. & Reimer, T. 2002. Policy Implementation and Cognition: Reframing and Refocusing Implementation Research. *Review of Educational Research*, 72(3): 387-431.

⁷ Potter, C. & Brough, R. 2004. Systemic capacity building: a hierarchy of needs, *Health Policy and Planning*, 19(5): 336–345.

also help to ensure that resources are allocated in a more informed, coherent and efficient way.8

The aims of this report are:

- To conduct a Policy Effectiveness Analysis on bottlenecks of the implementation capacities of FNS policies, programmes and budget priorities and allocation and political economy factors that influence realism of the policy/programming.
- To identify a framework of suitable actions, mindful of equity considerations, which can feasibly be scaled up or adopted in the Solomon Islands.

⁸ Baker, P., Hawkes, C., Wingrove, K., Demaio, A.R., Parkhurst, J., Thow, A.M. & Walls, H. 2018. What drives political commitment for nutrition? A review and framework synthesis to inform the United Nations Decade of Action on Nutrition, *BMJ Global Health*, 3(1): e000485.

2. Methodology

2.1. Overview

This food and nutrition diagnostic exercise applies the FAO FIRST Policy Effectiveness Tool. FAO FIRST (Food and Nutrition Security Impact, Resilience, Sustainability and Transformation) is a partnership between FAO and the European Union, providing a policy assistance facility to achieve a more enabling environment for food and nutrition security and sustainable agriculture within the target countries. The FIRST tool allows exploration of the policy space for the policies and strategies for FNS in the Solomon Islands: the draft National Food Security, Food Safety and Nutrition Policy 2019–2023, the Lokol Kaikai Initiative 2019–2023, the Multisectoral National Non-communicable Disease Strategic Plan 2017–2021, the Agriculture and Livestock Sector Policy 2015–2019, the National Health Strategic Plan 2016–2020¹³, and the National Development Strategy 2016–2035¹⁴. The FAO tool seeks to answer the following questions:

- What is hampering the achievement of the SDG2 food security and nutrition targets?
- Is FAO supporting the right set of actions, in the right places, for the right groups of people?
- Are we having or are we likely to have a real impact on the right groups of people?
- What are the priority actions (realistic, feasible and impactful) for the allocation of scarce public sector resources?

A significant component of this work was to understand and describe the drivers shaping the current context for food and nutrition security. We therefore drew on a conceptual framework described in Nutrition and food systems: a report by the High-Level Panel of Experts on Food Security and Nutrition, which identifies three interacting elements to food system functionality: food supply chains, food environments and consumer food behaviour (Figure 1).^{15,16}

Figure 1: The conceptual framework for exploring the relationship among food supply, food environments and food and

⁹ Solomon Islands Government. 2019. National Food Security, Food Safety and Nutrition Policy 2019–2023, Ministry of Health and Medical Services, Ministry of Agriculture and Livestock Development, Ministry of Fisheries and Marine Resources, Ministry of Education and Human Resources Development, Honiara, Solomon Islands.

¹⁰ Solomon Islands Government. 2019. Lokol Kaikai Initiative 2019-2023, Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

¹¹ Solomon Islands Government. 2017. Multi-sectoral National Noncommunicable Disease Strategic Plan 2017-2021, Ministry of Health and Medical Services, Honiara, Solomon Islands.

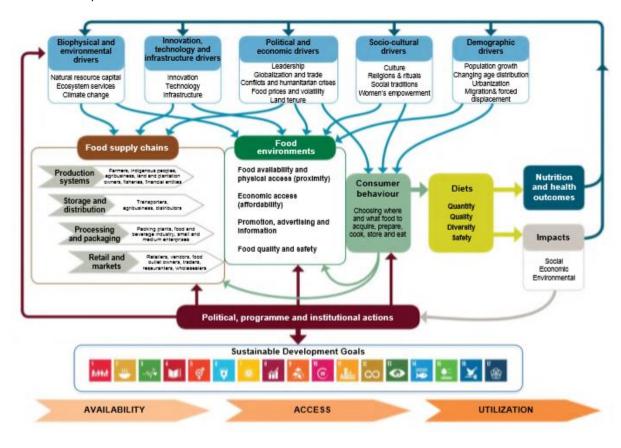
¹² Solomon Islands Government. 2015. Agriculture and Livestock Sector Policy 2015-2019, Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

¹³ Solomon Islands Government. 2016. National Health Strategic Plan (2016-2020), Ministry of Health and Medical Services, Honiara, Solomon Islands.

¹⁴ Solomon Islands Government. 2016. National Development Strategy (2016-2035). Ministry of Development Planning and Aid Coordination (MDPAC), Honiara, Solomon Islands.

¹⁵ High Level Panel Experts. 2017. Nutrition and food systems. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome: Italy. Available from: http://www.fao.org/3/a-i7846e.pdf (Accessed: 22 August 2019).

¹⁶ Larrousse, D., Kuo, C.G., Schreinemachers, P. & Wopereis, M.C.S. 2018. Innovations in vegetable food systems for food safety and nutrition security in lower- and middle-income countries in Asia. FFTC Agricultural Policy Articles. Available from: http://ap.fftc.agnet.org/ (Accessed: 22 August 2019).



Source: High Level Panel Experts, nutrition and food systems (2017)

2.2. Data collection and analysis

We conducted a desk-based review, which included: 1) current policies, their objectives and activities; 2) key stakeholders and their roles; and 3) statistics and trends for key commodities and policy indicators. Relevant documents were identified through Internet searches and through direct requests to MAL and other stakeholders. We extracted relevant information to three pre-determined matrixes, guided by the Solomon Islands Government policy priorities, the FIRST tool, and international best practice.

We undertook an in-depth consultation process in the Solomon Islands from the 29 July 2019 to 9 August 2019, in conjunction with a comprehensive stocktake of the agriculture sector. Together these processes involved ten targeted stakeholder consultation meetings, two provincial workshops (Guadalcanal and Western Province), two workshops targeting agriculture sector stakeholders, and a large Food and Nutrition Security Diagnostic Workshop. The Food and Nutrition Security Diagnostic Workshop involved 25 stakeholders from 18 different organisations relevant to agriculture, food systems and nutrition. This workshop included formal presentations, panel discussions, and small-group activities, in which participants explored the variety of multiple sectors and located themselves, their role, and contributions within the broader system of FNS in the Solomon Islands. This consultation process provided the opportunity for participants to identify barriers and enablers to effective food and nutrition policy implementation across sectors, and solutions to potential bottlenecks for

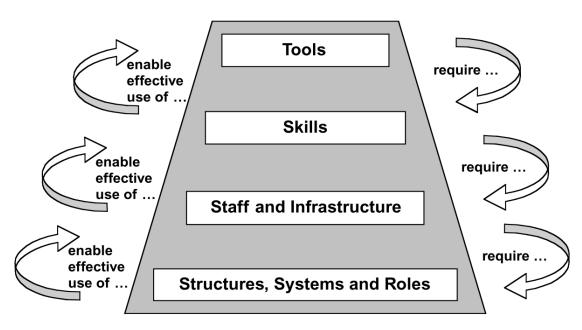
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 $^{^{17}}$ Thow et al. 2019 (unpublished). Stocktake analysis of the agriculture sector in Solomon Islands, Report for FAO and Ministry of Agriculture and Livestock, Sydney, Australia.

multisectoral nutrition actions in the Solomon Islands. We also identified a list of priority actions, mindful of equity considerations that could feasibly be scaled up or adopted in the Solomon Islands as a priority to promote healthy and sustainable diets.

Data collection and analysis were undertaken with reference to the objectives of the consultancy, and underpinned by constructs from a Potter and Brough's framework – Systemic Capacity Building: a hierarchy of needs (Figure 2). ¹⁸ This framework identifies nine interrelated components of capacity across a hierarchy of four categories: structures, systems and roles, staff and facilities, skills and tools. The framework is designed to improve diagnosis of sectoral shortcomings in specific locations, improve project/programme design and monitoring, and lead to more effective use of resources. We adapted this framework to elaborate on some of the constructs (to make them more relatable) and to include constructs from policy theory literature. The framework was provided to presenters to underpin their presentations and used by participants to examine issues of FNS responsibilities and capacity more systematically so that they could be addressed from a more nuanced perspective.

Figure 2: Hierarchy of capacity needs



Adapted from Potter and Brough (2004)

We undertook a second consultation process in September 2019 to present findings of this analysis to key stakeholders for validation, and to workshop a range of policy recommendations with respect to leadership and governance, maximising human and financial capital for nutrition, and establishing higher priority policies to form the basis of initial efforts towards addressing food and nutrition security. The outcome of this process forms the basis of this final policy effectiveness report.

¹⁸ Potter, C. & Brough, R. 2004. Systemic capacity building: a hierarchy of needs, *Health Policy and Planning*, 19(5): 336–345.

3. Introduction to the Solomon Islands

3.1. Overview

3.1.1. GEOGRAPHY

The Solomon Islands lies east of Papua New Guinea and northwest of Vanuatu and stretches for nearly 1 500 km across the South West Pacific. From around 900 small islands, atolls and reefs, the country's six major islands are Choiseul, New Georgia, Santa Isabel, Guadalcanal, Malaita and Makira (Figure 3: Map of the Solomon Islands). ¹⁹ The capital city, Honiara, is located in Guadalcanal, and accounts for 11 percent of the approximately 23 percent urban population. ²⁰ The remaining 80 percent of the country's 634 000 predominantly Melanesian inhabitants are largely a rural, agriculture-based society and live mainly along the coast, spread across around 350 islands. However, there are several pockets of villages on inland Guadalcanal and Malaita. ^{21,22,23}

3.1.2. DEMOGRAPHY

Average life expectancy for Solomon Islanders is 70 years for men and 73 years for women.²⁴ According to the Solomon Islands Household Income and Economic Survey (HIES), the average national household size (both urban and rural) is six persons per household and 90 percent of households are headed by men.²⁵ There are approximately 63 indigenous languages spoken across the country in addition to Melanesian Pidgin.²⁶

Figure 3: Map of the Solomon Islands

¹⁹ Yamauchi, T. 2012. Modernization, nutritional adaptability and health in Papua New Guinea Highlanders and Solomon Islanders. Nutrition and health in modernizing Samoans: temporal trends and adaptive perspectives. In: Osthuka, R. Ulijaszek, S. (eds) Health change in the Asia-Pacific region. Cambridge: University Press Cambridge.

²⁰ Solomon Islands Government. 2015. Solomon Islands 2012/2013 Household Income and Expenditure Survey (HIES), National Analytical Report (Volume 1), Solomon Island National Statistics Office and Ministry of Finance and Treasury.

²¹ Solomon Islands Government. 2017. Solomon Islands Demographic and Health Survey 2015, Solomon Island National Statistics Office, Ministry of Health and Medical Services, The Pacific Community, Honiara, Solomon Islands.

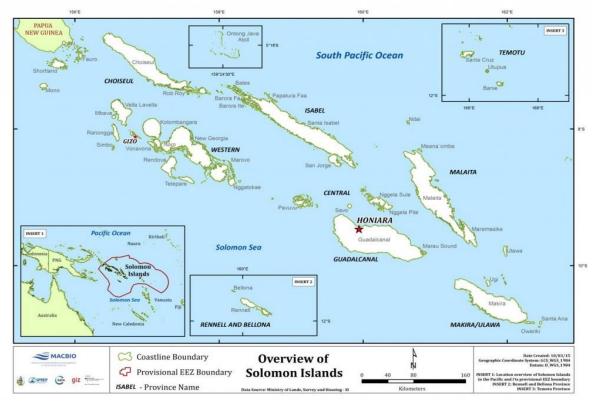
²² Food and Agricultural Organization (FAO). 2016. AQUASTAT Country Profile - Solomon Islands. Rome: Italy. http://www.fao.org/3/ca0383en/CA0383EN.pdf [Accessed: 20 April 2019].

²³ The World Bank. 2016. Country profile data. https://data.worldbank.org/country/solomon-islands (accessed: 20 April 2019).

World Health Organization (WHO). 2016. WHO Country Profile: Solomon Islands. Available from: https://www.who.int/countries/slb/en/ (Accessed: 13 July 2019).

²⁵ Solomon Islands Government. 2015. Solomon Islands 2012/2013 Household Income and Expenditure Survey (HIES), National Analytical Report (Volume 1), Solomon Island National Statistics Office and Ministry of Finance and Treasury.

²⁶ World Health Organisation Pacific Region (WPRO). 2010. Solomon Islands NCD Risk Factors STEPS Report. World Health Organization Division of Pacific Technical Support: Suva, Fiji.



Source: http://macbio-pacific.info/solomon-islands/

3.1.3. HISTORY

Indigenous peoples migrated from Southeast Asia and settled in the Solomon's archipelago well before European exploration (about 30 000 years ago).²⁷ The islands were inhabited by indigenous people when the first European explorer arrived in 1568 and by the 1800s the local inhabitants were accustomed to foreigners arriving at their shores. The British Solomon Islands Protectorate administration was declared in 1893 and under its influence local inhabitants were exposed to the ways of the West: education, Christianity, technology and agriculture. Japanese troops invaded and occupied the protectorate in Guadalcanal in May 1942, as part of the offensive on American, British and Dutch possessions in World War II. The United States of America military landed in August of the same year, marking the start of the Solomon Islands Campaign, which still influences socio-politics today.²⁸

3.1.4. SOLOMON ISLANDS AND THE SDGs

In 2015 the Solomon Islands committed to "end poverty, protect the planet and ensure prosperity for all" by agreeing to the 17 Sustainable Development Goals (SDGs) as the basis of the 2030 Agenda for Sustainable Development.^{29,30} Between 2000 and 2014 the country made good progress on reducing child mortality (Figure 4: Improved infant and child mortality in Solomon Islands), and on extending

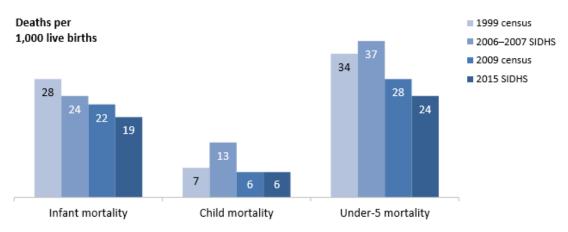
²⁷ Kwai, A.A. 2017. Solomon Islanders in World War II: An Indigenous Perspective, ANU Press, Canberra, Australia.

²⁸ Kwai, A.A. 2017.

²⁹ UN General Assembly. 2015. The 2030 Agenda for Sustainable Development. Available from: https://www.un.org/sustainabledevelopment/development-agenda (Accessed: 27 August 2019).

³⁰ World Health Organization Western Pacific Region (WPRO). 2019. UHC and SDG 2018 Country Profile Solomon Islands. Available from: https://apps.who.int/iris/handle/10665/272326 (Accessed: 18 August 2019).

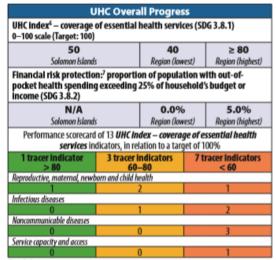
Figure 4: Improved infant and child mortality in Solomon Islands

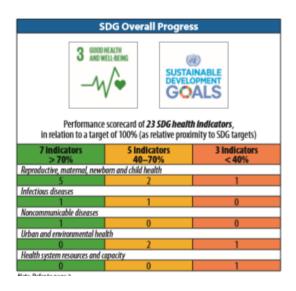


Source: Solomon Islands DHS 2015

A report on Universal Health Coverage (UHC) from the WHO Western Pacific Region (WPRO)³³ indicated that the Solomon Islands faces some major challenges in the prevention and control of both communicable and non-communicable disease, as well as in urban and environmental health (Figure 5: Solomon Island UHC and SDG progress 2018). Overall results suggested that compared with other countries in the Western Pacific Region, the Solomon Islands has low coverage of essential service capacity and access.³⁴

Figure 5: Solomon Island UHC and SDG progress 2018





³¹ Solomon Islands Government and the Pacific Community. 2015. The Solomon Islands Demographic Health Survey 2015 Final Report. Solomon Islands National Statistics Office, Ministry of Health and Medical Services, Honiara, Solomon Islands. Available from: https://sdd.spc.int/en/news/latest-news/134-solomon-islands-dhs-main-report-2015 (Accessed: 10 July 2019)

³² Mataki, M. 2013. Solomon Islands National Report for Third International Small Island Developing States Conference on Sustainable Development. Available from: https://sustainabledevelopment.un.org/content/documents/1154219FINAL (Accessed: 03 July 2019).

³³ World Health Organization Western Pacific Region (WPRO). 2019. UHC and SDG 2018 Country Profile Solomon Islands. Available from: https://apps.who.int/iris/handle/10665/272326 (Accessed: 18 August 2019).

³⁴ World Health Organization Western Pacific Region (WPRO). 2019. UHC and SDG 2018 Country Profile Solomon Islands. Available from: https://apps.who.int/iris/handle/10665/272326 (Accessed: 18 August 2019).

The reduction of NCDs, malnutrition, and the promotion of healthy diets for all Solomon Islanders are fundamental priorities of the Solomon Islands National Development Strategy (NDS).³⁵ Food and nutrition security is a crosscutting issue requiring the mobilisation of multisectoral stakeholders and communities; implementing coherent public policies that ensure a whole-of-government response is critical to achieving UHC and almost every SDG.

3.2. Agriculture, aquaculture and the Solomon Islands economy

With much of the agriculture and fisheries sectors linked to smallholder production, they are significant to both livelihoods and the economy. In 2014 agriculture was estimated to have contributed around 16 percent to GDP³⁶ while aquaculture contributed 7.3 percent.³⁷ Export commodities such as coconut, cocoa, palm oil, coffee and kava have been priorities for agricultural development.

In the past five years, development budgetary priorities within the agriculture sector have been livestock, research and development, and commercial crops (including coconut, cocoa and honey). The livestock subsector consistently received the largest share of the agriculture sector development budget from 2014 to 2018, although it declined between 2016 and 2018 from USD 1 099 269 to USD 243 500. In 2019, the coconut subsector was estimated to receive the largest share of the budget, at USD 304 375. Cocoa was estimated to receive the second greatest amount of commodity-specific funding after coconut in 2019 (USD 182 625) but has been in overall decline since 2014 (a high of USD 576 447).

Marine fish – predominantly tuna, fresh, frozen or canned – have been the most common fish exported, as well as the most consumed animal-source foods for Solomon Islanders.³⁸ Offshore fisheries provide Solomon Islanders income, representing the largest percentage of formal employment in the country, and licence fees for foreign vessels are a substantial source of government revenue.³⁹ In 2012, for example, approximately 11 percent of the total Pacific region's tuna catch was processed in the Solomon Islands, generating nearly 1 800 jobs with a potential value addition of USD 16 million and exports valued at USD 59 million.⁴⁰ In 2014, fisheries production was 1 530 tonnes or 20 000 units, translating into USD 773 263 000 in value. Of this, USD 79 228 378 was from foreign-based vessels.⁴¹

Subsistence agriculture production in the Solomon Islands is dominated by traditional foods adapted to local environments that tend to be nutrient rich. For example, cassava, cabbage, banana, pawpaw, kumara or long beans are grown in over 80 percent of rural and urban household gardens.⁴² Livestock, a subsector of agriculture in the Solomon Islands, is kept by 64 percent of rural and 15 percent of urban

³⁵ Solomon Islands Government. 2016. National Development Strategy (2016-2035). Ministry of Development Planning and Aid Coordination (MDPAC), Honiara, Solomon Islands.

³⁶ The Solomon Islands Agriculture Policy Bank https://pafpnet.spc.int/policy-bank/countries/solomon-islands

³⁷ FAO Fishery and Aquaculture Country Profiles. Solomon Islands. 2017. Country Profile Fact Sheets. In: *FAO Fisheries and Aquaculture Department* [online]. Rome. Updated 05 06 2018. [Cited 2 December 2019]. https://www.fao.org/fishery/

³⁸ Gillett, R. & Tauati, M.I. 2018. Fisheries of the Pacific Islands: regional and national information, *FAO Fisheries and Aquaculture Technical Paper*, No. 625, pp. I–400. Available from: http://www.fao.org/3/i9297en/I9297EN.pdf
³⁹ Gillett, R. & Tauati, M.I. 2018.

⁴⁰ Gillett, R. & Tauati, M.I. 2018.

⁴¹ Solomon Islands Government. 2016. Solomon Islands Trade Policy Statement. Ministry of Commerce, Industries, Labour and Immigration (MCILI Available from: http://www.mfaet.gov.sb/resources/strategies-policies/19-trade-sp/3-si-trade-policy-statement.html (Accessed: 18 August 2019).

⁴² Solomon Islands Government. 2015. Solomon Islands 2012/2013 Household Income and Expenditure Survey (HIES), National Analytical Report (Volume 1), Solomon Island National Statistics Office and Ministry of Finance and Treasury.

households.⁴³ There have been efforts to develop the cattle and small livestock industries, including pigs, chickens and honeybees. Employment and income opportunities from small livestock, including pigs and chickens, are predominantly within Guadalcanal and Malaita provinces.⁴⁴

Some food commodities are produced at scale, though largely for export, including copra, palm oil, palm kernel oil/meal, cocoa and coconut oil, which collectively contribute 8 percent to national exports (2018) (down from 13 percent in 2015). Palm oil is the highest value export product; with coconut and cocoa the most popular and widely produced export crops.

Current land use for agricultural production is 108 000 ha, approximately 4 percent of the total land area (2016 estimates). ⁴⁵ Furthermore, 80 000 ha of land for agricultural production is under permanent crops and 20 000 ha is considered arable land, land under permanent meadows and pastures comprises only 8 000 ha. ⁴⁶ Increasing population growth has translated into intensification of cropping (and particularly monocrops), reduced fallow and soil degradation; the practice of slash and burn, which increases forest clearance to create new gardens for farming, may be short-lived as the fertility of the newly generated land is considered unsustainable. ⁴⁷

Achieving consistent supplies of good quality agriculture and aquaculture products to meet market opportunities and local demands remains a challenge in the Solomon Islands.⁴⁸ Sustained economic growth and market access through agriculture in the Solomon Islands is limited somewhat by geographical remoteness, distance to markets – domestically and internationally, a small domestic market demand, and natural disasters.⁴⁹ Between 1996 and 2006, there was a 5 percent decrease in the agricultural contribution to the nation's gross domestic product (GDP). ⁵⁰ Fresh tuna consumption is also declining due to increasing costs and is being replaced by canned fish products.⁵¹ It is predicted that fresh fish consumption will continue to decrease in the future due to poorly managed coastal resources and increasing population pressure.⁵²

Women play a considerable role in the agricultural system. For example, it is estimated that women spend three times as much time working in the gardens/farms than men. Over 80 percent of market vendors are women, and market buyers are twice as likely to be women than men.⁵³ However, women are typically marginalised when it comes to land tenure and registration in the Solomon Islands. They

⁴³ Solomon Islands Government. 2015.

⁴⁴ Solomon Islands Government. 2015.

⁴⁵ Food and Agriculture Organisation (FAO). 2019. FAOSTAT Country Profile – Solomon Islands. Rome: Italy. http://www.fao.org/faostat/en/#country/25 [Accessed: 15 July 2019].

⁴⁶ Food and Agriculture Organisation (FAO). 2019.

⁴⁷ Andersen, A,. Thilsted, S. & Schwarz, A. 2013. Food and nutrition security in Solomon Islands. Working Paper for the Research Program on Aquatic Agricultural Systems. Australian Government Centre for Agriculture Research. Available from: http://pubs.iclarm.net/resource_centre/WF_3544.pdf (Accessed: 02/10/2019).

⁴⁸ Solomon Islands Government. 2016. The National Biodiversity Strategic Action Plan 2016-2020, Ministry of Environment, Climate Change, Disaster Management and Meteorology, Honiara, Solomon Islands.

⁴⁹ Solomon Islands Government. 2016. National Development Strategy (2016-2035). Ministry of Development Planning and Aid Coordination (MDPAC), Honiara, Solomon Islands.

⁵⁰Food and Agricultural Organization (FAO) 2016. AQUASTAT Country Profile - Solomon Islands. Rome Italy. http://www.fao.org/3/ca0383en/CA0383EN.pdf [Accessed: 20 April 2019].

⁵¹ Gillett, R. & Tauati, M.I. 2018. Fisheries of the Pacific Islands: regional and national information, *FAO Fisheries and Aquaculture Technical Paper*, No. 625, pp. I-400. Available from: http://www.fao.org/3/i9297en/I9297EN.pdf

⁵² Bell. J.D., Kronen, M., Vunisea, A., Nash, W.J., *et al.* 2009. Planning the Use of Fish for Food Security in the Pacific. Marine Policy. 33: 64–76.

⁵³ Georgeou, N., Hawksley, C., Monks, J., Ride, A., Ki'i, M. & Barratt, L. 2018. Food Security in Solomon Islands: A Survey of Honiara Central Market, HADRI/Western Sydney University.

face significant gender-based violence and are often stifled in decision-making with regards to land use, household income or their own health care.54

⁵⁴ Andersen, A., Thilsted, S. & Schwarz, A. 2013. Food and nutrition security in Solomon Islands. Working Paper for the Research Program on Aquatic Agricultural Systems. Australian Government Centre for Agriculture Research. Available from: http://pubs.iclarm.net/resource_centre/WF_3544.pdf (Accessed: 02/10/2019).

4. The status of food and nutrition security in the Solomon Islands

4.1. Food supply chains in the Solomon Islands

According to the model in Figure 1: The conceptual framework for exploring the relationship among food supply, food environments and food and nutrition security, key components to food supply chains include production systems, storage and distribution, processing and packaging and retail. Here we draw from the interviews and a small number of available reports to examine the supply chain for fresh produce in the Solomon Islands.

Production systems in the Solomon Islands are largely characterised by subsistence farming of traditional food. Livestock are held by 64 percent of rural and 15 percent of urban households. Newer, introduced crops, such as Chinese cabbage, peanuts and cucumber, are produced almost exclusively for market.⁵⁵

While export crops are typically purchased and sold to buyers through cooperatives (palm oil and coconut), domestic and traditional local foods are largely transported and sold by farmers at provincial markets and at Honiara Central Market (HCM). There is limited infrastructure throughout the supply chain for appropriate storage, particularly for products requiring cold chain facilities, and there is limited storage at markets. Poor roads and high transportation costs (e.g. vehicles, fuel) also contribute to high post-harvest losses because of the resulting delays in produce getting to markets. Getting consistent supplies of good quality agricultural products to meet market opportunities is a key challenge.⁵⁶

Difficulties with transporting foods, and lack of storage facilities represent a major challenge for farmers in the Solomon Islands, significantly driving up post-harvest losses and limiting economic benefits for farmers. Though development partners have invested in infrastructure to provide basic services such as roads, bridges and docks, there is no agency formally responsible for overseeing opportunities to address inefficient transport and storage systems, and as a result, there has been little investment in post-harvest storage and transportation for fresh and traditional local foods. A survey at HCM concluded that improvement to transport and storage infrastructure is needed in order to guarantee food supply and fresh food availability during periods of vulnerability (e.g. floods).⁵⁷

Primary processing could ideally take place at farms or in centralised locations (more common for commercial crops). However, challenges faced by farmers include a lack of electricity for processing, and lack of access to finance by farmers, processors and middlemen. There have been some initiatives to reduce post-harvest losses through primary processing. For example, the Department of Planning supported establishment of copra milling facilities in the rural areas to facilitate the production of coconut oil, biofuel, animal feed and other down-stream products for export. The Ministry of Commerce, Labour and Industries has, through its grants scheme, supported initiatives to dry fruit and

(Accessed 21 August 2019).

⁵⁵ Solomon Islands Government. 2019. Report on National Agricultural Survey 2017 Solomon Islands National Statistics Office, Ministry of Finance and Treasury and Ministry of Agriculture and Livestock, in collaboration with the Food and Agriculture Organization of the United Nations and the World Bank.

⁵⁶ FAO. Pacific Multi-Country CPF Document 2013–2017. www.fao.org/3/a-az134e.pdf esp. pp124-134

⁵⁷ Georgeou, N., Hawksley, C., Monks, J., Ride, A., Ki'I, M. & Barratt, L. 2018. Food Security in Solomon Islands: A Survey of Honiara Central Market, HADRI/Western Sydney University. Available from: https://www.westernsydney.edu.au/ data/assets/pdf file/0010/1465453/Food Security in Solomon Islands.pdf

mill cassava flour. However, products developed for consumption are generally produced in small amounts and priced as luxury goods.

Market access differs significantly for domestic versus export-oriented production in the Solomon Islands. There are no buying cooperatives facilitating the production and distribution of traditional food products. Most farmers access markets on foot, or in buses. For many farmers, access to markets is limited by expensive, unreliable or non-existent public transportation, and capacity to transport in large volumes. Farming families in Central and Guadalcanal Provinces report being the furthest away from markets, resulting in their having to pay an average of USD 36 (SBD 297) per household per week in markets. Extended time spent away from home for the approximately 80 percent of women vendors travelling to markets places additional strain on rural families to provide childcare and tend gardens in their absence. Furthermore, poor weather and extreme climatic events such as flooding and cyclones limit the opportunity to travel to markets.

More recently, there has been an emergence of professional middlemen at domestic markets. Middlemen buy farmers' produce in bulk for resale at the market, guaranteeing farmers a buyer and enabling them to spend less time as market vendors. A recent survey indicated that nearly 20 percent of HCM vendors were middlemen.⁶⁰ However, there are disputes in the sector around whether a fair price is being paid to farmers, and middlemen face a potential financial risk if produce does not sell.

Key issues in strengthening agribusiness and supply/value chains are the logistics involved in efficiently moving agricultural commodities from farms to markets at scale, and the lack of opportunity for adding value, processing, storage and transportation. There is a critical opportunity for the agriculture sector to coordinate action and investment along the supply chain in order to address significant post-harvest loss.

4.2. The food environment

We found very few data on **the Solomon Islands food environment**, specifically food affordability, access, availability and food marketing. Regional trends suggest that the availability and marketing of low cost packaged foods is extensive in many Pacific Island Countries (PICs)^{61,62}. Evidence suggests that Solomon Islanders living outside main townships may have higher dietary diversity that those living in townships, with people residing in urban centres accessing large amounts of energy-dense, processed foods.⁶³ A 2018 study confirmed that dietary intake from highly processed and sugary foods is particularly high in Honiara.⁶⁴

The 2015 National Poverty Report provides us with some insight into **food affordability** in the Solomon

⁵⁸ Solomon Islands Government. 2019. Report on National Agricultural Survey 2017 Solomon Islands National Statistics Office, Ministry of Finance and Treasury and Ministry of Agriculture and Livestock, in collaboration with the Food and Agriculture Organization of the United Nations and the World Bank.

⁵⁹ Solomon Islands Government. 2019.

⁶⁰ Solomon Islands Government. 2019.

⁶¹ Parry, J. 2010. Pacific islanders pay heavy price for abandoning traditional diet, Bulletin of the World Health Organization, Volume 88, Number 7, July 2010, 481–560.

⁶² Snowdon, W. et al. 2013. Processed foods available in the Pacific Islands. Globalization and Health 9(53).

⁶³ Horsey, B., Swanepoel, L., Underhill, S., Aliakbari, J., Burkhart, S. 2019. Dietary Diversity of an Adult Solomon Islands Population. *Nutrients* 2019, 11, 1622.

⁶⁴ Farrell *et al.* (unpublished). 2019. Today, we live on money and depend on processed food from the shop: Healthy food access in peri-urban Honiara. Contact: penny.farrell@sydney.edu.au

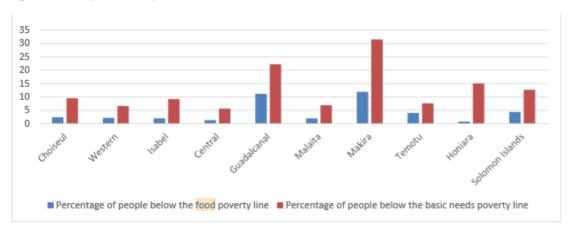
Islands.⁶⁵ The report found that the costs of meeting basic needs (including food) was much higher in urban areas than it was in rural areas, and that the costs of meeting basic needs were approximately twice as high in the capital of Honiara than in the provinces. Additionally, the Food Poverty Line was significantly higher in Honiara at SBD 446.40 (USD 53.94) than the national average of SBD 182.87 (USD 22.10) per household per week (Table 1: Food and basic needs poverty lines).

Table 1: Food and basic needs poverty lines

Location of household	Food poverty line in SBD (USD)				
	Week	Per capita adult equivalent			
National	182.27 (22.10)	32.59 (3.94)			
Honiara	446.40 (53.94)	62.17 (7.51)			
Provincial urban	249.04 (30.09)	42.33 (5.11)			
Rural	156.17 (18.87)	27.48 (3.32)			
Source: Solomon Islands HIES (2015)					

While the incidence of food poverty was relatively low overall (4.4 percent of the Solomon Islands population), there was significant variation across the country (Figure 6: Poverty Incidence by Province (2015), with populations in Makira, Guadalcanal and Honiara experiencing higher rates of food poverty than others.

Figure 6: Poverty Incidence by Province (2015)



Source: Solomon Islands Poverty Profile Report (2015)

Honiara residents also had a higher reliance on cash income to pay for food, with price fluctuations more heavily influencing their food security. One study reported that there had been an 11 percent increase to the price of food in Honiara between 2009 and 2015.⁶⁶

Data are currently limited on the overall **food availability** in the Solomon Islands. Certainly, with a large proportion of the population engaging in subsistence farming, small stores retailing in dry goods around the country (including remote areas), and the large numbers of communities engaging in

⁶⁵ Solomon Islands Government. 2015. Solomon Islands Poverty Profile based on the 2012/13 Household Income and Expenditure Survey, Solomon Islands National Statistics Office, Ministry of Finance and Treasury, The World Bank, Honiara, Solomon Islands.

⁶⁶ Georgeou, N., Hawksley, C., Monks, J., Ride, A., Ki'i, M. & Barratt, L. 2018. Food Security in Solomon Islands: A Survey of Honiara Central Market, HADRI/Western Sydney University.

onshore fishing, there is a range of foods available. However, in sparsely populated areas, **food access** depends on the ability to travel the (often long) distances to a market (local, provincial or HCM). Additionally, the Solomon Islands is susceptible to a range of vulnerabilities that may disrupt the accessibility of food, including climatic events, water quality (surrounding mining and logging areas), and global events, including variability in food pricing. There is potential for the current COVID-19 outbreak to substantially disrupt agricultural and food distribution systems.

Furthermore, social determinants play a role in food access. Women in the Solomon Islands suffer from high rates of gender-based violence, and intra-household food access is linked to family roles and status. In these circumstances it is possible that ongoing access to quality foods could be disrupted. High rates of undernutrition in children suggest that children may be experiencing vulnerabilities that reduce their access to nutritious food at home.

Food quality and safety in the Solomon Islands are predominantly the remit of the Ministry of Health and Medical Service's (MHMS) Environmental Health Unit, in collaboration with the MAL Department of Biosecurity. Food safety and quality are largely affected by limited storage facilities at markets as well as lack of cold-chain storage along the food supply chain. For example, reef fish are transported for over 24 hours in ice-filled cooler boxes on passenger ships moving from the Western Province to HCM. Additionally, food safety knowledge and training for market vendors are reportedly very limited.

The extensive use of pesticides by farmers is a significant and unregulated risk to food quality and safety. Farmers are reportedly sold chemical products without appropriate labelling, training or instructions. Lack of facilities or regulation to support chemical residue testing for food exacerbates this situation, translating into widespread and inappropriate chemical use in production. This is dangerous to both food producers and consumers.

The Pure Food Regulations (2010)⁶⁷ shape food quality and safety legislation in the Solomon Islands. Aligned to Codex Alimentarius, which is within the remit of the MHMS, the standards include regulations addressing food packaging, labelling, advertising and food claims, food and commodity hygiene standards, and restrictions on breastmilk substitutes. However, implementation and enforcement of the regulations is inadequate, owing to a lack of staffing. A planned activity relating to food safety is the FAO/STDF project on capacity building and upgrading of the Solomon Islands National Public Health Laboratory to ISO standards (microbiological testing) for European Union market access (namely fish). Other food items and water can be also tested for safety in these facilities.

4.3. Food security status of Solomon Islanders

FAO defines food security to exist when "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". 68

Food insecurity commonly affects smallholder/subsistence farmers in developing countries,⁶⁹ and approximately 80 percent of Solomon Islanders live in rural, subsistence farming environments.

⁶⁷ Solomon Islands Government, 2010. Pure Food Regulations (under the Pure Food Act 1996).

⁶⁸ Food and Agricultural Organization (FAO). 2003. Trade reforms and food security: Conceptualizing the linkages. FAO: Rome, Italy. Available from: http://www.fao.org/3/y4671e/y4671e06.htm (Accessed: 10 August 2019).

⁶⁹ Sibhatu, K.T. & Qaim, M. 2017. Rural food security, subsistence agriculture, and seasonality, *PloS ONE*, 12(10): e0186406. Available from: https://doi.org/10.1371/journal.pone.0186406 (accessed 19 July 2019).

According to the 2017 National Agricultural Survey, around 56 percent of agricultural households worry that they may run out of money and resources for food, and around 41 percent reported that they could not maintain a healthy diet because they lacked the resources to do so.⁷⁰ Over one-fifth (22.1 percent) of agricultural households had in the previous 12 months run out of money and resources for food.

Key drivers of food insecurity are food affordability and access to land.⁷¹ Rapid urban population growth in Honiara and changing patterns of food consumption have created conditions in which food insecurity is considered part of life in Honiara ⁷². One study found that a staggering 91 percent of Honiara-based participants experience some form of food insecurity, with almost half reporting that they did not eat for whole days at a time.⁷³ Those reporting difficulties with accessing foods were resorting to reducing portion sizes for their children.

The Solomon Island does not have a national nutrition survey or any dietary analysis data that can help inform this paper around dietary intake and consumption patterns by different groups and geographic areas. However, trends in dietary energy supply to the Solomon Islands shows that average dietary energy supply has increased significantly since the start of the century (Figure 7), and access to protein has increased also (Figure 8).⁷⁴

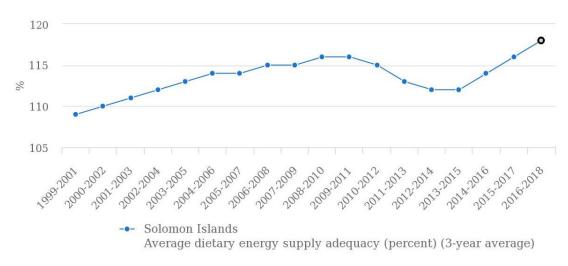


Figure 7: Average dietary energy supply adequacy (%) (three-year average)

Source: FAOSTAT (accessed Aug 2019)

⁷⁰ Solomon Islands Government. 2019. Report on National Agricultural Survey 2017 Solomon Islands National Statistics Office, Ministry of Finance and Treasury and Ministry of Agriculture and Livestock, in collaboration with the Food and Agriculture Organization of the United Nations and the World Bank.

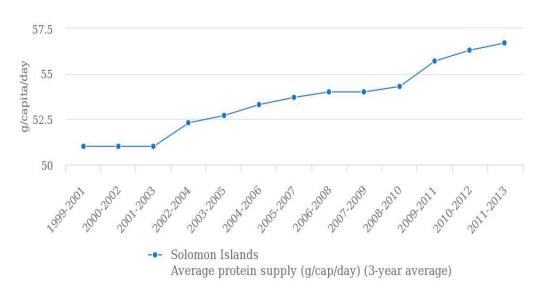
⁷¹ Georgeou, N., Hawksley, C., Monks, J., Ride, A., Ki'I, M. & Barratt, L. 2018. Food Security in Solomon Islands: A Survey of Honiara Central Market, HADRI/Western Sydney University.

⁷² Georgeou, N., Hawksley, C., Monks, J., Ride, A., Ki'l, M. & Barratt, L. 2018.

⁷³ Farrell et al. (unpublished), 2018. Health food access in peri-urban Honiara. Contact: penny.farrell@sydney.edu.au

⁷⁴ Food and Agriculture Organization (FAO). 2019. FAOSTAT Country Profile – Solomon Islands. Rome: Italy. http://www.fao.org/faostat/en/#country/25 [Accessed: 15 July 2019].

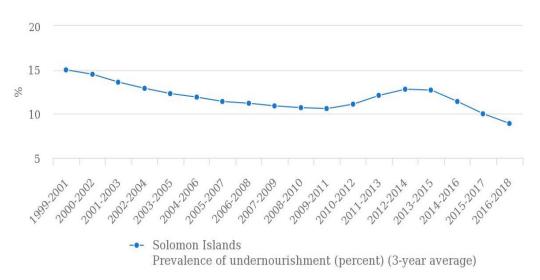
Figure 8: Average protein supply (g/capita/day) (three-year average)



Source: FAOSTAT (accessed Aug 2019)

Overall, an increasing food supply has corresponded with falling levels of undernourishment in the Solomon Islands. The number of people experiencing hunger has declined significantly since the 1990s.⁷⁵

Figure 9: Prevalence of undernourishment (%, three-year average)

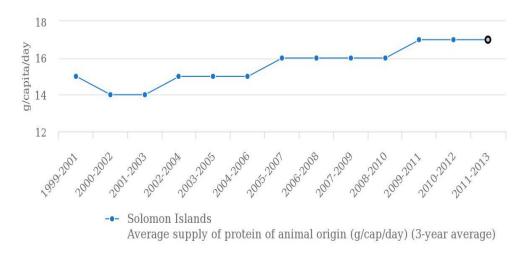


Source: FAOSTAT (accessed Aug 2019)

While dietary energy intake levels are reportedly adequate in the Solomon Islands, dietary quality is of concern, with supply of protein from animal sources (which are generally higher in iron and zinc) stagnating since the 2010 tensions, when livestock production in the country was wiped out (Figure

⁷⁵ Food and Agriculture Organization (FAO). 2019. FAOSTAT Country Profile – Solomon Islands. Rome: Italy. http://www.fao.org/faostat/en/#country/25 [Accessed: 15 July 2019].

Figure 10: Average supply of protein of animal origin (g/capita/day) (three-year average)



Source: FAOSTAT (accessed Aug 2019)

Fruit and non-starchy vegetable acquisition is low compared with other foods, especially among the lower income urban portion of the population, with household income and access to home-grown foods being key predictors of fruit and non-starchy vegetable consumption.⁷⁷ Solomon Islanders living outside main townships have higher dietary diversity that those living in townships.

A 2019 study found that Solomon Islanders generally desire a diverse diet that includes local food.⁷⁸ These factors suggest that dietary intake is highly influenced by access to land, food environments and food security, and less influenced by poor food preferences.

4.4. Nutrition status of Solomon Islanders

Dietary risk factors are a key cause of concern for Solomon Islanders throughout the lifecycle. The top four risk factors to death and disability in the Solomon Islands are all diet related, specifically high fasting blood glucose, malnutrition, high BMI and other dietary risks.⁷⁹

Figure 11: Top ten causes of disability-adjusted life years (DALYs) in 2017 and percent change (2007–2017), all ages

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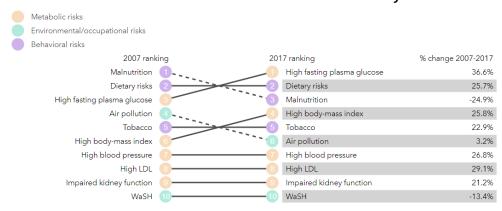
⁷⁶ Food and Agriculture Organization (FAO). 2019. FAOSTAT Country Profile – Solomon Islands. Rome: Italy. http://www.fao.org/faostat/en/#country/25 [Accessed: 15 July 2019].

⁷⁷ Farrell *et al.* (unpublished). 2019. Acquisition and affordability of fruit and non-starchy vegetables in Solomon Islands: a cross-sectional analysis. Contact: penny.farrell@sydney.edu.au

⁷⁸ Horsey, B., Swanepoel, L., Underhill, S., Aliakbari, J. & Burkhart, S. 2019. Dietary diversity of an adult Solomon Islands population. *Nutrients*, 11, 1622.

⁷⁹ Institute for Health Metrics and Evaluation, Solomon Islands. Accessed 2020: http://www.healthdata.org/solomon-islands

What risk factors drive the most death and disability combined?



Source: Institute for Health Metrics and Evaluation (accessed 2019)

4.4.1. UNDERNUTRITION IN CHILDREN

The nutritional status of children is an important indicator of their health and well-being. ⁸⁰ Chronic undernutrition lowers immunity and increases susceptibility to various infectious diseases, particularly in environmental conditions with unsafe water and sanitation practices. Undernutrition (stunting, wasting, underweight) in early childhood (under five years old) is a significant problem for Solomon Islanders, particularly in rural areas (Table 2: Undernutrition in the Solomon Islands by geographical location). According to the Solomon Islands Demographic Health Survey 2015 (DHS), around 26 percent of those under five years of age living in the city of Honiara are stunted, compared with a rate of 32 percent in rural areas. Children in Guadalcanal suffer from the highest levels of stunting, while more children in the Western Province are wasted or underweight. ⁸¹

Table 2: Undernutrition in the Solomon Islands by geographical location

Location	Low birth weight (% <2.5Kg)	<5 years mortality / 1000 deaths	Percent (%) <5 years**						
			Stunting* (low height for age)	Severe stunting	Wasting* (low weight for height)	Severe wasting	Underweight* (low weight for age)	Severely under- weight	Over- weight Obese
Honiara	10.7	22	26.6	9	4.6	1.3	11.3	1	1.3
Guadalcanal	9.7	25	36	14.3	6.3	3.3	13.9	3.8	1.7
Malaita	9.5	37	34	10.3	5.3	2.4	11.6	3.6	0.9
Western Province	10.6	18	31	11.4	14.6	5.7	22.5	4.4	0.3
Other provinces	10.7	21	29	8.3	9.4	3.1	18.3	4.6	1.4
Urban	10.7	23	27.3	8.2	6.3	2.1	12.0	1.5	1.0

⁸⁰ Solomon Islands Government and The Pacific Community. 2015. The Solomon Islands Demographic Health Survey 2015 Final Report. Solomon Islands National Statistics Office, Ministry of Health and Medical Services, Honiara, Solomon Islands. Available from: https://sdd.spc.int/en/news/latest-news/134-solomon-islands-dhs-main-report-2015 (Accessed: 10 July 2019).

⁸¹ Solomon Islands Government and The Pacific Community. 2015. The Solomon Islands Demographic Health Survey 2015 Final Report. Solomon Islands National Statistics Office, Ministry of Health and Medical Services, Honiara, Solomon Islands. Available from: https://sdd.spc.int/en/news/latest-news/134-solomon-islands-dhs-main-report-2015 (Accessed: 10 July 2019).

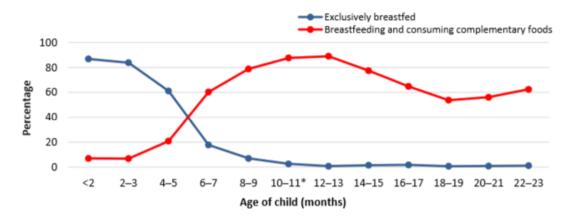
Rural 10.1 26 32.4 10.8 8.3 3.3 16.2 4.2 1.2

4.4.2. BREASTFEEDING AND COMPLEMENTARY FEEDING PRACTICES

WHO Global Strategy on Infant and Young Child feeding recommends exclusive breastfeeding within one hour of birth, with complementary feeding beginning at six months of age.⁸² Breastfeeding offers some protection against the development of obesity, hypertension, dyslipidaemia and type II diabetes in adulthood.⁸³

Breastfeeding practices have greatly improved in the Solomon Islands in recent years. The 2015 DHS reported a 5 percent increase in the prevalence of exclusive breastfeeding from the 2005/2006 survey (up from 93 percent to 98 percent),⁸⁴ and found that 79 percent of women initiated breastfeeding within one hour of birth. By province, the survey showed prevalence of breastfed children was over 95 percent in all provinces, with the highest rates in Guadalcanal (99 percent) and the lowest in Honiara (97 percent). Breastfeeding prevalence increased with a mother's level of educational attainment but not significantly with household wealth. Despite these encouraging statistics, a key challenge to address is the rate of premature complementary feeding by mothers, with around 35 percent of babies being given complementary food prior to six months of age (Figure 12: Relationship between feeding practice in children <2 years, 2015).⁸⁵

Figure 12: Relationship between feeding practice in children <2 years, 2015



Source: Solomon Islands DHS (2015)

4.4.3. VITAMIN A STATUS

According to the DHS (2015), 84 percent of children aged <2 years consumed vitamin A-rich foods

^{*}Values include severely stunted, wasted and underweight.

^{**}Percentage values represent those of the total survey participants (i.e. 3 483 participants). Sourced and adapted from Rayner et al. (2017) and Solomon Islands DHS (2015)

⁸² World Health Organization (WHO). 2001. Global strategy for infant and young child feeding. Available from: https://www.who.int/nutrition/topics/infantfeeding_recommendation/en/ (Accessed: 20 August 2019).

⁸³ Kelishadi, R. & Farajian, S. 2014. The protective effects of breastfeeding on chronic non-communicable diseases in adulthood: a review of the evidence. *Advanced Biomedical Research*, 3(3). Available from: doi: 10.4103/2277-9175.124629 (Accessed: 20 August 2019).

⁸⁴ Solomon Islands Government and The Pacific Community. 2015. The Solomon Islands Demographic Health Survey 2015 Final Report. Solomon Islands National Statistics Office, Ministry of Health and Medical Services, Honiara, Solomon Islands. Available from: https://sdd.spc.int/en/news/latest-news/134-solomon-islands-dhs-main-report-2015 (Accessed: 10 July 2019)

⁸⁵ Solomon Islands Government and The Pacific Community. 2015.

within 24 hours prior to the survey (indicating a 6 percent decrease since 2006/2007). The survey found children from Honiara, Malaita and Western Provinces were likely to consume more vitamin A-rich foods than children from other provinces. Also, around 37 percent of children <5 years were given vitamin A supplements within six months prior to the survey. The survey also indicated that approximately 33 percent of women received vitamin A supplements after childbirth, representing an increase from 16 percent reported in the 2006–2007 survey. Women from Guadalcanal, with higher educational attainment and living in wealthy households, were more likely to make use of the supplementation programme. The survey found children is survey found.

4.4.4. IRON DEFICIENCY ANAEMIA

Although the Solomon Islands has seen large improvements in iron status of women and children since the 2006/2007 survey, rates of iron deficiency anaemia (IDA) in the Solomon Islands are still far too high. For example, in children aged 6–59 months rates have dropped from 48 percent to 39 percent. For pregnant and non-pregnant women aged 15-49, the prevalence rate fell from 60 percent to 54 percent and from 44 percent to 41 percent and 54 percent, respectively. Rates of IDA vary by province, with Malaitan children having the lowest rates (34 percent) and children from Western Province the highest (46 percent). Figure 13: Anaemia prevalence in Solomon Island children (<5 years) by region, 2015) shows the highest prevalence of any anaemia in women of childbearing age occurs in Guadalcanal (46 percent) and the lowest in Malaita (36 percent).

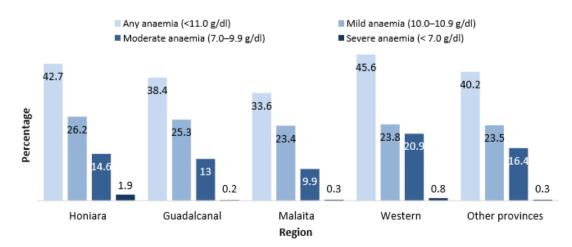


Figure 13: Anaemia prevalence in Solomon Island children (<5 years) by region, 2015

Source: Solomon Islands DHS (2015)

⁸⁶ Solomon Islands Government and The Pacific Community. 2015. The Solomon Islands Demographic Health Survey 2015 Final Report. Solomon Islands National Statistics Office, Ministry of Health and Medical Services, Honiara, Solomon Islands. Available from: https://sdd.spc.int/en/news/latest-news/134-solomon-islands-dhs-main-report-2015 (Accessed: 10 July 2019).

⁸⁷ Solomon Islands Government and The Pacific Community. 2015.

⁸⁸ Solomon Islands Government and The Pacific Community. 2015.

any anaemia <12.0 g/dl / P <11.0 g/dl</p> Moderate 7.0–9.9 g/dl / P 7.0–9.9 g/dl ■ Severe <7.0 g/dl / P < 7.0 g/dl</p> 46.1 44.2 40.5 39.3 Percentage 36.3 5.3 0.4 Honiara Guadalcanal Malaita Other provinces Western

Region

Figure 14: Anaemia prevalence in Solomon Island women (15-49 years) by region, 2015

Source: Solomon Islands DHS (2015)

4.5. NON-COMMUNICABLE DISEASE IN THE SOLOMON ISLANDS

NCDs are the leading cause of all mortality in the Solomon Islands, where they account for around 69 percent of all deaths. ⁸⁹ The risk of dying prematurely (aged 30–70 years) as a result of an NCD is 24 percent. According to Global Burden of Disease Data (2010), the main causes of years of life lost (YLL) in the Solomon Islands are deaths from diabetes mellitus, cerebrovascular disease and lower respiratory infections, and NCDs account for the top three causes of disability-adjusted life years (DALYs). ⁹⁰ Between 2007 and 2017 the country saw a 48 percent increase in the contribution to mortality by diabetes, and a 20 percent increase in the contribution by stroke, illustrating a worrying trend. Additionally, most adult Solomon Islanders exhibited NCD risk factors, with close to two-thirds (64.1 percent) of the population living with 1-2 NCD risk factors, and a third (33.2 percent) living with 3-5 NCD risk factors. Just 2.7 percent of all adults are deemed at low risk of developing an NCD (0 risk factors). ⁹¹

Data from MHMS have indicated a steady increase in clinic presentations for hypertension and diabetes management over time, with diabetes-related presentations nearly doubling over the years 2011 to 2018.⁹²

4.5.1. CONTRIBUTION OF DIET TO NCD RISK

The nutrition transition experienced by the Solomon Islands has seen consumption of traditional fruit, vegetables and root crops replaced by a reliance on imported and tinned foods, often high in fat, salt

⁸⁹World Health Organization (WHO). 2018. Non-communicable diseases country profile 2018. Geneva: World Health Organization. Licence: CC BY-NC-SA 3.0 IGO. Available from: https://www.who.int/nmh/publications/ncd-profiles-2018/en/ (Accessed: 08 August 2019).

⁹⁰Global Burden of Disease (GBD). 2010. Available from:

http://www.healthdata.org/sites/default/files/files/country profiles/GBD/ihme gbd country report solomon islands.pdf (Accessed: 08 August 2019).

⁹¹ World Health Organization (WHO). 2017 (unpublished). Solomon Islands NCD Risk Factors STEPS Report (Draft). World Health Organization Division of Pacific Technical Support: Suva, Fiji.

⁹² Ministry of Health and Medical Services (MHMS). 2019. Health Core Indicator Report 2018. Data is not prevalence but serves as a proxy for clinical workload relating to diabetes and hypertension treatment as well as the burden of disease of diabetes and hypertension amongst those presenting to an NCD health facility.

and sugar.⁹³ There is convincing evidence linking dietary factors to diabetes, cardiovascular disease and some cancers, with the effects mediated by four key metabolic changes: overweight and obesity, elevated blood pressure, hyperlipidemia and hyperglycemia.⁹⁴

According to the Solomon Islands NCD Risk Factors STEPS Report (2017),⁹⁵ around a third of the adult population (35.9 percent) are overweight and one-fifth (22.8 percent) are obese, with prevalence higher in women than in men (Figure 14). Overweight and obesity in adolescence (aged between 13 and 15 years) has emerged as a problem in recent years, affecting 17.6 percent of boys, and 22.4 percent of girls.⁹⁶

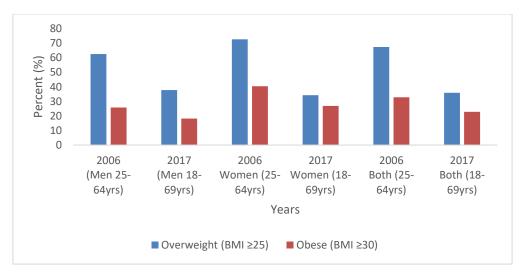


Figure 15: Overweight and obesity in Solomon Islanders 2006 and 2017

Source: WHO STEPS Solomon Islands (2006 and 2017)

The study also found close to one-fifth (19.8 percent) of adults with elevated blood pressure and almost a third (30.5 percent) with elevated cholesterol, both major contributors to cardiovascular disease and stroke.

Dietary salt plays a major role in influencing blood pressure⁹⁷ and nearly half (46.1 percent) of the population always or often add salt to food before eating. A higher consumption of fruit and vegetables

⁹³ Solomon Islands Government. 2019. Lokol Kaikai Initiative 2019-2023, Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

⁹⁴ Diet, nutrition and the prevention of chronic diseases: report of a Joint WHO/FAO Expert Consultation. WHO Technical Report Series, No. 916. Geneva: World Health Organization; 2003.

Lim, S.S., Vos, T., Flaxman, A.D., Danaei, G., Shibuya, K., Adair-Rohani, H., *et al.* 2013. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet*, 380:2224-60.

⁹⁵ World Health Organization (WHO). 2017 (unpublished). Solomon Islands NCD Risk Factors STEPS Report (Draft). World Health Organization Division of Pacific Technical Support: Suva, Fiji.

⁹⁶ Kessaram, T., McKenzie, J., Giri, N., Merilles, O.E.A., Pullar J., Roth, A., White, P. & Hoy, D. 2015. Overweight, obesity, physical activity and sugar-sweetened beverage consumption in adolescents of Pacific islands: results from the Global School-Based Student Health Survey and the Youth Risk Behaviour Surveillance System. *BMC obesity*, 2(1), p.34.

 $^{^{97}}$ World Health Organization, 2007. Prevention of cardiovascular disease: pocket guidelines for assessment and management of cardiovascular risk. Geneva.

Sacks, F.M., Svetkey, L.P., Vollmer, W.M. *et al.* 2001. Effects on blood pressure of reduced dietary sodium and the Dietary Approaches to Stop Hypertension (DASH) diet. DASH-Sodium Collaborative Research Group. *N. Engl. J. Med.*; 344: 3–10.

is associated with a lower risk of all-cause mortality, particulalrly cardiovascular mortality, ⁹⁸ and an increased intake of green leafy vegetables could significantly reduce risk of type 2 diabetes⁹⁹ and coronary heart disease. ¹⁰⁰ However, 89 percent of the Solomon Islands population consume fewer than the recommended five servings of fruit and vegetables per day (Figure 16: Fruit and vegetable intake of Solomon Islanders in 2017). High intakes of rice, noodles and wheat products (Figure 17: Servings per week of carbohydrates) likely displace consumption of fruit and vegetables. When asked in the STEPs survey about dietary preferences, respondents indicated that key influences on fruit and vegetable consumption were availability, time, cost and preference. In rural areas, fruit and vegetables were being grown and sold in exchange for rice, canned tuna, noodles and sugar.

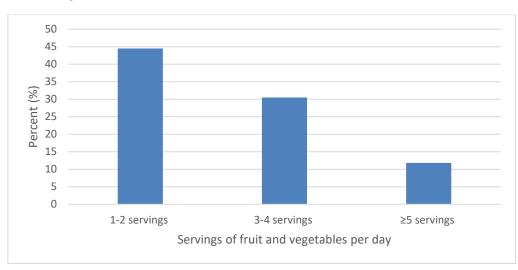


Figure 16: Fruit and vegetable intake of Solomon Islanders in 2017

Source: WHO STEPS Solomon Islands (2017)

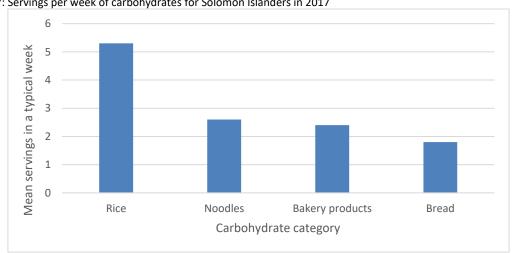


Figure 17: Servings per week of carbohydrates for Solomon Islanders in 2017

Source: WHO STEPS Solomon Islands (2017)

⁹⁸ Wang, X., Ouyang, Y., Liu, J., Zhu, M., Zhao, G., Bao, W., Hu & Frank B, 2014. Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: systematic review and dose-response meta-analysis of prospective cohort studies, *British Medical Journal*, 349.

⁹⁹ Carter, P., Gray, L. J., Troughton, J., Khunti, K., Davies & Melanie, J. 2010. Fruit and vegetable intake and incidence of type 2 diabetes mellitus: systematic review and meta-analysis.

¹⁰⁰ Dauchet, L., Amouyel, P., Hercberg, S. & Dallongeville, J. 2006. Fruit and Vegetable Consumption and Risk of Coronary Heart Disease: A Meta-Analysis of Cohort Studies, *The Journal of Nutrition*, 136, 10.

5. Drivers for food and nutrition security

Maintaining food and nutrition security remains a challenge for the Solomon Islands. According to the conceptual framework introduced in Section 1 (Figure 1), there are political and economic, sociocultural and demographic and environmental factors drivers of food insecurity. In this section we aim to understand and describe the drivers shaping the current context for food and nutrition security, identifying three interacting elements to food system functionality: food supply chains, food environments and consumer food behaviour. A growing number of studies also evaluate the political economy drivers of a food system through the policies, strategies and plans the government implements. 103

5.1.Political factors and economic drivers

The Solomon Islands gained independence from Great Britain and joined the Commonwealth in 1978.¹⁰⁴ Currently, the Hon. Prime Minister Mr Manasseh Sogavare leads the 50-member parliament of the Solomon Islands,¹⁰⁵ with nine Premiers in the provinces.

According to a country-diagnosis process undertaken by The World Bank, ¹⁰⁶ the establishment of government agencies with the capacity to manage fully an even socio-demographic development process is severely limited. The dispersed nature of the islands, current political status, and remoteness from markets increase costs associated with delivering effective public services. This means that non-state institutions and international actors will need to play a role in the development of the Solomon Islands over the longer term.

5.1.1. THE 1997-2003 CONFLICT

In the 20 years following independence, ethnic tensions increased when Malaitan islanders, drawn by the promise of greater employment and economic opportunities, migrated and settled on Guadalcanal. In 1998 the conflict escalated, and as lawlessness, widespread extortion and crime grew, the government declared a state of emergency and requested external assistance. ¹⁰⁷ A comprehensive package of strengthened assistance was offered by Australia and 15 contributing countries in the

¹⁰¹ High Level Panel Experts. 2017. Nutrition and food systems. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome: Italy. Available from: http://www.fao.org/3/a-i7846e.pdf (Accessed: 22 August 2019).

¹⁰²Larrousse, D., Kuo, C.G., Schreinemachers, P. & Wopereis, M.C.S. 2018. Innovations in vegetable food systems for food safety and nutrition security in lower- and middle-income countries in Asia. *FFTC Agricultural Policy Articles*. Available from: http://ap.fftc.agnet.org/ (Accessed: 22 August 2019).

¹⁰³ Sievert, K., Lawrence, M., Naika, A. & Baker, P. 2019. Processed Foods and Nutrition Transition in the Pacific: Regional Trends, Patterns and Food System Drivers. *Nutrients*, 11(6): 1328. Available from: doi:10.3390/nu11061328 (Accessed: 23 August 2019).

 ¹⁰⁴ Australian Department of Foreign Affairs and Trade (DFAT). 2019. Solomon Islands Country Brief. Available from: https://dfat.gov.au/geo/solomon-islands/Pages/solomon-islands-country-brief.aspx (Accessed: 18 August 2019).
 105 Radio New Zealand (RNZ Pacific). Manasseh Sogavare elected prime minister of Solomon Islands. (Internet, 24 April 2019). Available from: https://www.rnz.co.nz/international/pacific-news/387670/manasseh-sogavare-elected-prime-minister-of-solomon-islands (Accessed: 18 August 2019).

¹⁰⁶ The World Bank Group. 2018. Solomon Islands Systematic Country Diagnostic Priorities for Supporting Poverty Reduction & Promoting Shared Prosperity Report No.: 115425-SB.

 $^{^{107}}$ Regional Assistance Mission to Solomon Islands (RAMSI). No date. The Tensions. Available from: https://www.ramsi.org/the-tensions/ (Accessed: 18 August 2019).

Pacific region in support of the Solomon Islands Government between 2003 and 2017.^{108,109} With the support of neighbouring countries, the Solomon Islands Government worked to restore destroyed or damaged state infrastructure and facilitate reconciliation and relationships among communities. The post-conflict environment has however involved challenges, with donor dependency, ongoing land and law conflict, and limited opportunities for commercial institutions.¹¹⁰

5.1.2. ECONOMIC STATUS, EMPLOYMENT AND POVERTY

In part a result of the tensions, the Solomon Islands has experienced severe economic contraction and stagnation, ¹¹¹ and is one of the Pacific's poorest countries. ¹¹² It was since classified by the World Bank as a Least Developed Country (LDC) in 1991. In 2015 the country, for the first time, met two (per capita income and human assets criteria) of the three thresholds (the third is economic vulnerability) for graduation from LDC status, and in 2021 it is expected to graduate officially. ¹¹³ While the country's overall economic vulnerability remains below the required 100 percent threshold to graduate fully (as of 2018 it was 61 percent), it has not been destabilised beyond domestic control, and stability of agricultural production and exports of goods and services have been higher than for other LDCs. This reportedly signals potential of a policy window for strengthened actions towards these sectors. ¹¹⁴

There are indications that rates of poverty fell in the Solomon Islands in the years 2005/2006 and 2012/2013. Using data from HIES surveys, the Solomon Islands poverty profile (2015) reported that the national poverty level had fallen by around 8 percent. ¹¹⁵ Key drivers for poverty across the Solomon Islands were reported as being: non-migrant, self-employed or economically inactive Melanesian males, >50 years of age, from rural provinces and with <6 years primary school education. The three provinces making the greatest contribution to national poverty (by adult equivalent) are Makira, where almost one third of the population live in households where consumption is below the poverty line; Guadalcanal, where higher prices outweigh higher incomes; and Malaita (Error! Reference source not found.). While national poverty rates in the country show marked progress over the last six years, particularly in a post-conflict recovery context, addressing and meeting SDG1 (no poverty) will be an ongoing challenge. Interventions based on reaching the greatest number of people experiencing poverty should target these three provinces as a priority. ¹¹⁶

¹⁰⁸ Regional Assistance Mission to Solomon Islands (RAMSI).

Australian Department of Foreign Affairs and Trade (DFAT). 2019. Solomon Islands Country Brief. Available from: https://dfat.gov.au/geo/solomon-islands/Pages/solomon-islands-country-brief.aspx (Accessed: 18 August 2019).
 Braithwaite, J., Dinnen, S., Allen, M., Braithwaite, V. & Charesworth, H. 2010. Pillars and Shadows: State building as peace building in Solomon Islands. Australian National University: Canberra, Australia. Available from: http://press-files.anu.edu.au/downloads/press/p76041/html/upfront.xhtml?referer=&page=0# (Accessed: 21 August 2019).
 Australian Department of Foreign Affairs and Trade (DFAT). 2019. Solomon Islands Country Brief. Available from: https://dfat.gov.au/geo/solomon-islands/Pages/solomon-islands-country-brief.aspx (Accessed: 18 August 2019).
 United Nations Committee for Development Policy (CDP). 2018. List of Least Develop Countries. Available from: https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/ldc list.pdf (Accessed: 13 August 2019).

¹¹³ Committee for Development Policy of United Nations (CDP). 2018. Vulnerability Profile of Solomon Islands. From CDP 20th Plenary Session, UN, New York, 12-16 March 2018. Available from: https://www.un.org/development/desa/dpad/wpcontent/uploads/sites/45/CDP-PL-2018-6e.pdf (Accessed: 18 August 2019).

¹¹⁴ Committee for Development Policy of United Nations (CDP). 2018.

¹¹⁵ Solomon Islands Government, The World Bank. 2015. Solomon Islands poverty profile based on the 2012/2013 Household Income and Expenditure Survey (HIES). Available from:

http://www.mof.gov.sb/Libraries/Homepage quick links/Solomon Islands Report on Poverty 2012-13 HIES FINAL.sfib.ashx (Accessed: 09 July 2019).

¹¹⁶ Solomon Islands Government, The World Bank. 2015.

100 80 60 38.0 40 21.7 17.3 20 3.0 29 1.7 SOLOMON Isabel Central Guadalcanal Malaita Temotu Honiara ISLANDS (+ R-B)

Figure 18: Adult equivalent contribution to National Poverty (%), by province

Source: Solomon Islands Poverty Profile (2015)

According to the Solomon Islands HIES survey (2015), just 14 percent of the population was involved in wage and salary-based jobs in 2012/2013.¹¹⁷ The survey indicated a significant urban/rural divide and major gender inequity. For instance, there were twice as many men as women in wage and salary jobs. Total job occupation in urban areas was more than three times higher than in rural (32 percent urban, 9.8 percent rural), and there were nearly twice as many men employed compared with women (41.2 percent men, 22.8 percent women). Gender differences were even more pronounced in rural areas, where men were nearly three times more likely to be employed than women (14.6 percent men, 4.9 percent women).

5.1.3. LAND TENURE

For Solomon Islanders, land tenure is historically and culturally a highly sensitive and complex issue. Land tenure has been behind a series of ongoing conflicts (disputes over land were fundamental to the tensions described), and it is a major source of social and gender inequality across the country. Around 83 percent of land is formally governed by customary tenure, which revolves around stories of ancestors or kin groups and can in some areas be negotiated. Some land systems are matrilineal (owned by women, e.g. Guadalcanal and Makira), while others are patrilineal (owned by men, e.g. Malaita and Choiseul). From the late 1970s, much of the remaining land around Honiara was registered and leased under the Land and Titles Act, removing its customary land classification. This drove rapid migration from Guadalcanal and other islands towards remaining land, sparking a number of land disputes. These escalated throughout the 1990s as the economic gains from logging, mining and sale or leasing of land appeared to be benefiting a small number of male leaders to the exclusion of others. 118

5.1.4. PRIVATE SECTOR

The feasibility, inclusiveness and sustainability of private sector development in the Solomon Islands

¹¹⁷ Solomon Islands Government. 2015. Solomon Islands 2012/13 Household Income and Expenditure Survey National Analytical Report (Volume 1). National Statistics Office, Honiara, Solomon Islands. Available from: https://microdata.pacificdata.org/index.php/catalog/44/overview (Accessed: 09 July 2019).

¹¹⁸ Monson, R. 2017. The Politics of Property: Gender, Land and Political Authority in Solomon Islands. Kastom, property and Ideology: Land transformations in Melanesia. Australian National University Press: Canberra, Australia.

are heavily influenced by political economy factors and by economic geography: remoteness, the lack of economy of scale, and limited access to industries connected to global markets. High transport, commodity and labour costs limit the private sector from producing economically viable food products for domestic and international markets. Disputes over land tenure and economic opportunity were fundamental to the political tensions. The unrest has in turn had a significant impact on private sector development in the production, processing and supply of food, because the commercialisation of resources created discord regarding ownership and access. ¹¹⁹ There has been very limited opportunity for agglomeration of skills and knowledge critical to food productivity. ¹²⁰

Achieving national goals of 'food security and food sovereignty' is limited by the lack of locally produced foods capable of competing (in price and preference) with imported alternatives. The private sector engagement in the export of commercial crops has, in recent years, provided significant training and technical assistance to farmers. Most government support for the private sector in the agriculture space has been directed towards producing export commodities and not food. While there has been very little formal private sector activity in traditional and local food supply, if properly supported there would be significant opportunity for the private sector to contribute to food and nutrition security for Solomon Islanders, particularly through food buying and distribution, food processing, and value-adding to agricultural production.

5.1.5. TRADE POTENTIAL AND GLOBALISATION

Productive capacity, or the potential for the country to produce and market its output of goods and services, is acknowledged as being a key challenge to trade development. The 2016 Trade Policy Statement highlighted the need to prioritise strengthening productive capacity in order to overcome the limitations of a narrow economy base and consequent difficulties in responding to changes in the world economy. The report identified the key corrective actions for building productive capacity as being: better linkages (e.g. farmers supplying fruit and vegetables to hospitals, hotels, and/or schools), infrastructure (spanning the whole country to help producers bring to market goods and services), access to a full range of financial institutions (e.g. microfinance, travelling banks), land (cited by foreign investors as the biggest challenge to doing business), and energy and water (overhauling old and outdated infrastructure for both was reported to be critical).

5.2. Socio-demographic drivers of food and nutrition security

Social and cultural factors have a particularly important role in food and nutrition security. Pacific countries like Samoa, Tonga and the Solomon Islands are broadly classified as collectivistic cultures in which conformity to social norms can be a stronger driver of food behaviours than in more individualistic countries of the West.¹²³ A 2018 analysis of 54 countries found that collectivism was significantly associated with decreased obesity, even accounting for other cultural dimensions and per

¹¹⁹ The World Bank Group. 2018. Solomon Islands Systematic Country Diagnostic Priorities for Supporting Poverty Reduction & Promoting Shared Prosperity Report No.: 115425-SB.

¹²⁰ The World Bank Group. 2018.

¹²¹ Solomon Islands Government. 2016. Solomon Islands Trade Policy Statement. Ministry of Commerce, Industries, Labour and Immigration (MCILI Available from: http://www.mfaet.gov.sb/resources/strategies-policies/19-trade-sp/3-si-trade-policy-statement.html (Accessed: 18 August 2019).

¹²² Solomon Islands Government. 2016.

¹²³ Jaacks, L.M., Vandervijvere, S., Pan, A., McGowan, C.J., Wallace, C., Imamura, F., Mozaffarian, D., Swinburn, B. & Ezzati, M. 2019. The obesity transition: stages of the global epidemic. *Lancet Diabetes Endocrinology* (online). Available from: http://dx.doi.org/10.1016/S2213-8587(19)30026-9 (Accessed: 24 August 2019).

5.2.1. GENDER, INEQUALITY AND FOOD INSECURITY

Women's participation in leadership and decision-making at senior levels in the Solomon Islands is low.¹²⁵ While women account for 40 percent of public service positions, they occupy just 5 percent of senior roles and 22 percent of mid-level positions. Constraints on their engagement include educational attainment, sociocultural discrimination, high levels of gender-based violence and high levels of family care responsibility.¹²⁶ However, there are signs that this is starting to change, and currently women occupy more leadership positions within government.

Of those employed, women were half (26 percent) as likely to be in paid work than men (51 percent) and were more likely to be in vulnerable employment (subsistent or self-employed activity). A 2017 survey conducted at the HCM found that 82.9 percent of the vendors were female and the ratio of women to men consumers was 2:1. This demonstrates the important role Solomon Island women play in food production and household-income generation. There are opportunities to ensure that women are offered equal access to credit, grants and land, public education and health services, agricultural information and extension services. These factors would likely improve their intrahousehold bargaining power in relation to assets, and their control over them. 128

5.2.2. EDUCATIONAL ATTAINMENT

Educational achievement influences lifelong health and economic opportunities, and vulnerability to poverty and inequity.¹²⁹ According to the 2012/2013 HIES survey, the Solomon Islands has higher numbers of females who have never attended school in rural areas (19 percent compared with 14 percent for males), and a lower prevalence of females currently attending school in rural areas (37 percent females versus 40 percent males). The survey also found that there was a higher proportion of females whose parents did not want them to attend school in both rural and urban areas (17 percent of females and 2 percent males in urban areas and 21 percent against 5 percent males in rural areas).¹³⁰ Additionally, a lower proportion of educational attainment at post-secondary levels is reported in rural (4 percent) compared with urban areas (22 percent).¹³¹ These data suggest that there is inequity in both the family values and opportunities that promote education for females and males, and in rural versus urban environments.

¹²⁴ Jaacks, L.M., Vandervijvere, S., Pan, A., McGowan, C.J., Wallace, C., Imamura, F., Mozaffarian, D., Swinburn, B. & Ezzati, M. 2019.

¹²⁵ Solomon Islands country gender assessment. 2015. Asian Development Bank.

¹²⁶ Solomon Islands country gender assessment. 2015.

¹²⁷ Georgeou, N., Hawksley, C., Monks, J., Ride, A., Ki'l, M. & Barratt, L. 2018. Food Security in Solomon Islands: A Survey of Honiara Central Market, HADRI/Western Sydney University. Available from:

https://www.westernsydney.edu.au/ data/assets/pdf file/0010/1465453/Food Security in Solomon Islands.pdf (accessed 21 August 2019).

¹²⁸ Van den Bold, M., Quisumbing, A.R. & Gillespie, S. 2013. Women's Empowerment and Nutrition: an evidence review. In: International Food Policy Research Institute IFPRI) Discussion Paper 01294. Available from: https://ssrn.com/abstract=2343160 (Accessed: 21 August 2019).

¹²⁹ Hanh, R.A. & Truman, B.I. 2015. Education improves public health and promotes health equity. *Int. J. Health Serv.* 45(4): 657–678. Available from: doi:10.1177/0020731415585986 (Accessed: 15 July 2019).

¹³⁰ Solomon Islands Government. 2015. Solomon Islands 2012/13 Household Income and Expenditure Survey National Analytical Report (Volume 1). National Statistics Office, Honiara, Solomon Islands. Available from: https://microdata.pacificdata.org/index.php/catalog/44/overview (Accessed: 09 July 2019).

¹³¹ Solomon Islands Government. 2015.

5.3.Demographic drivers

5.3.1. MIGRATION AND POPULATION GROWTH

The population growth rate in the Solomon Islands is approximately 2.3 percent per annum, or nearly 40 additional people per day. Owing to rapid urbanisation in the country, Guadalcanal is increasing in population size more rapidly than other provinces and will eventually become the province with the largest population. In urban areas the population growth rate is 5 percent due mainly to extremely high rates of urbanisation. According to the 2009 census, urbanisation is projected to increase from approximately 20 percent in 2010 to nearly 30 percent by 2050 as the population ages.

The Solomon Islands also has a relatively young population, with 60 percent of the population aged less than 24 years. These factors have created conditions described as an Urban Youth bulge and a Rural Youth dent, whereby young people migrate to urban areas in search of employment and opportunity, while few stay behind to carry on with traditional, subsistence farming of local crops.

Mature farmers believe this problem can be mitigated somewhat with improved education and technology. They recommended that younger generations are supported and incentivised to use their technological savvy to implement more modern farming techniques. It suggests that the creation of conditions that improve rural employment and livelihood opportunities for youths might be an area worthy of investment by policymakers.

5.3.2. HOUSEHOLD SIZE, EXPENDITURE AND INCOME

The average household size is made up of six people in both urban and rural households. At the time of the 2012/2013 HIES, rural households had an average income of SBD 45 116 (USD 5 459) (approximately SBD 8 011 or USD 969) per capita), while the average urban household had an average income of SBD 114 793 (USD 13 890) (approximately SBD 19 072 or USD 2 308 per capita). Employment accounted for 77 percent of the household income (for both rural and urban households).

Household consumption expenditure in urban settings was twice that of rural settings at SBD 107 364 (USD 12 991), of which <30 percent is on food and non-alcoholic beverages. The average rural household spends SBD 48 587 (USD 5 879) annually, of which more than half (53.4 percent) is spent on food and non-alcoholic beverages. These values were similar for households headed by both women and men, although households headed by women spent 2 percent less on food and non-alcoholic beverages, while households headed by men spent a slightly higher proportion of their expenditure on alcohol and tobacco (approximately 2 percent). Health expenditure accounts for just 0.2 percent of total consumption expenditure.

These data show that consumption expenditure for both urban and rural areas is less than income, and that the cost of living is higher in urban areas than rural. It also suggests that rural households may

¹³² Solomon Islands Government. 2009. The Solomon Islands Population and Housing Census. Solomon Islands National Statistics Office, Honiara, Solomon Islands.

¹³³ Solomon Islands Government. 2017. Descriptive Health Core Indicator Report Solomon Islands 2016, Ministry of Health and Medical Services, Honiara, Solomon Islands.

¹³⁴ Solomon Islands Government. 2013b. Report on 2009 Population & Housing Census, Honiara. Honiara: Solomon Islands National Statistics Office

¹³⁵ Evans, D. 2016/2017. Hard Work: Youth Employment Programming in Honiara, Solomon Islands, Australian National University SSGM Discussion Paper 2016/7.

 $[\]underline{\text{http://ssgm.bellschool.anu.edu.au/sites/default/files/publications/attachments/2016-10/dp_2016_7_evans_online.pdf}$

¹³⁶ Solomon Islands Government. 2017. Descriptive Health Core Indicator Report Solomon Islands 2016, Ministry of Health and Medical Services, Honiara, Solomon Islands.

be more vulnerable to food insecurity owing to their need to spend a greater share of income on food and non-alcoholic beverages.

5.3.3. ACCESS TO WATER, SANITATION AND HEALTH CARE

The Solomon Islands National Development Strategy (NDS) acknowledges the provision of improved water and sanitation services as being critical to improving health and well-being, particularly in rural areas. However, administering water and sanitation services across such a highly dispersed population has proved challenging. The 2015 Solomon Islands DHS found that 85 percent of rural dwellers still use non-improved toilet facilities, compared with <10 percent of their urban neighbours. Similarly, 20 percent of rural dwellers use non-improved drinking water sources, compared with just 5 percent of the urban population.¹³⁷

NDS targets include increasing access to clean water from 35 percent of the population in 2014 to 60 percent by 2035, and increasing access to proper sanitation services from 18 percent in 2010 to 40 percent by 2035. This should help improve health and food utilisation through reduction in water-borne diseases, including incidence of diarrhoea among children aged less than five years old (currently 9.4 percent with a target to achieve <4 percent by 2035). 139

At a national level, 37 percent of rural households access rural aid centres as their primary health care facility, usually by walking (70 percent), or by canoe (16 percent). ¹⁴⁰ In comparison, 66 percent of urban households access Honiara City Council clinics as their primary source of health care, by walking (56 percent) or in a vehicle (41 percent). Figure 19 shows travel time to access health care in rural and urban areas. ¹⁴¹

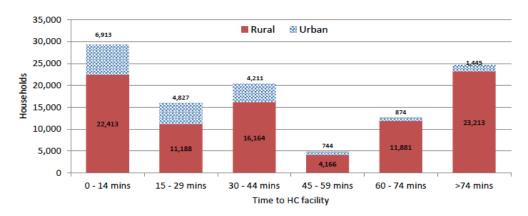


Figure 19: Travel time by households to access health care

Source: Solomon Islands HIES (2015)

¹³⁷ Solomon Islands Government and The Pacific Community. 2015. The Solomon Islands Demographic Health Survey 2015 Final Report. Solomon Islands National Statistics Office, Ministry of Health and Medical Services, Honiara, Solomon Islands. Available from: https://sdd.spc.int/en/news/latest-news/134-solomon-islands-dhs-main-report-2015 (Accessed: 10 July 2019).

¹³⁸ Solomon Islands Government. 2016. National Development Strategy (2016-2035). Ministry of Development Planning and Aid Coordination (MDPAC), Honiara, Solomon Islands.

¹³⁹ Solomon Islands Government, 2016.

¹⁴⁰ Solomon Islands Government. 2015. Solomon Islands 2012/13 Household Income and Expenditure Survey National Analytical Report (Volume 1). National Statistics Office, Honiara, Solomon Islands. Available from: https://microdata.pacificdata.org/index.php/catalog/44/overview (Accessed: 09 July 2019).

5.4. Environmental threats to food security

5.4.1. LOGGING

Logging is the largest source of formal employment in the Solomon Islands outside the public service (providing 5 000 jobs). Timber accounted for 67 percent of all exports in 2015, with most timber going to China. The Solomon Islands Trade Policy Statement (2016) recognised that natural forest in the Solomon Islands would soon be exhausted. The demise of raw timber translates into a potential loss of 60 percent of exports within five to ten years – a sharp economic shock that may exacerbate a steep rise in unemployment.

Logging also poses a key threat to natural habitats and destroys arable farming land. Runoff caused by logging threatens marine environments and fishing prospects. The demise of forest resources has increased environmental vulnerability and climate change in the fragile ecosystem of the Solomon Islands. Concerned by the impacts of logging, in 2019 Central Island Province proposed a ban on logging (and mining) operations in an attempt to halt the degradation of the archipelago's already sensitive and vulnerable ecosystem.¹⁴⁵

5.4.2. CLIMATE CHANGE AND NATURAL DISASTERS

Similar to other areas in the Pacific region, the Solomon Islands is extremely vulnerable to drought, flooding, landslides, tropical cyclones, volcanic activity, earthquakes and tsunamis. Literature also suggests ocean acidification, coral bleaching and rising temperatures are on the increase and rising sea levels represent a significant threat, with entire communities having to relocate from smaller islands and atolls to higher ground. Since 1931, the country has experienced over 70 natural disasters, resulting in nearly 800 fatalities and costing the country up to USD 44 million in damage. A 2017 analysis reported that the average annual loss due to natural hazards and climate-related events represented a staggering 3 percent of the gross domestic product (GDP), or approximately SBD 144 million.

Climate change is likely to exacerbate the double burden of malnutrition through its effects on agriculture, marine resources, rainfall and fresh water. This will likely increase dependence on imported foods, drive further migration, and pose a serious disruption to health services. Extreme weather events, and particularly flooding and storm surges in low-lying, remote areas, will require increased demands on health infrastructure and workforce capacity. Recent surveillance on preparedness for climate sensitive diseases and health outcomes in the Solomon Islands indicated that there has been a moderate implementation of integrated risk monitoring and early warning

¹⁴² Committee for Development Policy of United Nations (CDP). 2018. Vulnerability Profile of Solomon Islands. From CDP 20th Plenary Session, UN, New York, 12-16 March 2018. Available from: https://www.un.org/development/desa/dpad/wpcontent/uploads/sites/45/CDP-PL-2018-6e.pdf (Accessed: 18 August 2019).

¹⁴³ Solomon Islands Government. 2016. Solomon Islands Trade Policy Statement. Ministry of Commerce, Industries, Labour and Immigration (MCILI Available from: http://www.mfaet.gov.sb/resources/strategies-policies/19-trade-sp/3-si-trade-policy-statement.html (Accessed: 18 August 2019).

¹⁴⁴ Solomon Islands Government. 2016.

¹⁴⁵ Mongabay. 2019. Solomon Islands province bans logging in bid to protect environment (Internet, 21 January 2019). Available from: https://news.mongabay.com/2019/01/solomon-islands-province-bans-logging-in-bid-to-protect-environment/ (Accessed: 16 August 2019).

¹⁴⁶ World Health Organization (WHO). 2019. Health & Climate Change Country Profile 2019: Solomon Islands. Small Island Developing States Initiative. WHO, Rome, Italy.

¹⁴⁷ Nanua, G.L. 2017. Solomon Islands. The Contemporary Pacific, 29(2): 354-361. Available from: doi: https://doi.org/10.1353/cp.2017.0036 (Accessed 09 July 2019).

¹⁴⁸ Nanua, G.L. 2017.

strategies. ¹⁴⁹ Figure 20 outlines the Solomon Islands preparedness for the type of health risks creating by climate risks.

Figure 20: Preparedness for climate risks

Integrated risk monitoring and early warning

Climate-sensitive diseases and health outcomes	Monitoring system is in place ^a	Monitoring system includes meteorological information ^b	Early warning and prevention strategies in place to reach affected population?
Thermal stress (e.g. heatwaves)	×	×	×
Vector-borne diseases	✓	/	✓
Foodborne diseases	×	×	✓
Waterborne diseases	✓	×	✓
Nutrition (e.g. malnutrition associated with extreme-climatic events)	✓	×	✓
Injuries (e.g. physical injuries or drowning in extreme weather events)	×	×	×
Mental health and well-being	✓	×	✓
Airborne and respiratory diseases	~	×	✓

^{✓=}yes, X= no, NA= not applicable

Source: FAO Health and Climate Change Country Profile (2019)

5.4.3. FISHERIES

Fishing is a significant contributor to food security in the Pacific islands.¹⁵⁰ Coastal fisheries are a major source of food security and livelihood opportunities for many Solomon Islands coastal communities. Continuous pressure from population growth and other natural and man-made impacts on coastal fisheries have led to a depletion of fishery resources.^{151,152} The increasing gap between fish demand and supply from coastal fisheries is projected to result in shortfalls of more than 4 000 tonnes per year in fish supply versus demand by 2030.¹⁵³ The Solomon Islands National Fisheries Policy (2019–2029) aims to safeguard inshore and inland fisheries and associated ecosystems and ecosystem services, and maintain the contribution of fisheries to food and nutrition security.

5.5. Technological and infrastructure drivers

At the time of the 2009 census (most recent available), just 41 percent of rural households had access

^a A positive response indicates that the monitoring system is in place, it will identify changing health risks or impacts AND it will trigger early action.

b Meteorological information refers to either short-term weather information, seasonal climate information OR long-term climate information.

¹⁴⁹ World Health Organization (WHO). 2019. Health & Climate Change Country Profile 2019: Solomon Islands. Small Island Developing States Initiative. WHO, Rome, Italy.

¹⁵⁰ Charlton, K.E., Russell, J., Gorman, E. *et al.* 2016. Fish, food security and health in Pacific Island countries and territories: a systematic literature review. *BMC Public Health* 16, 285. https://doi.org/10.1186/s12889-016-2953-9

¹⁵¹ Brewer, T.D., Cinner, J.E., Green, A. & Pandolfi, J.M. 2009. Thresholds and multiple scale interaction of environment, resource use, and market proximity on reef fishery resources in the Solomon Islands. *Biological Conservation*, 142(8): 1797–1807.

¹⁵² Lovell, E., Sykes, H., Deiye, M., Wantiez, L., Garrigue, C., Virly, S., Samuelu, J., Solofa, A., Poulasi, T., Pakoa, K. & Sabetian, A. 2004. Status of Coral Reefs in the South West Pacific: Fiji, Nauru, New Caledonia, Samoa, Solomon Islands, Tuvalu and Vanuatu. *Status of coral reefs of the world*, 2: 337–362.

¹⁵³ Bell, J., Kronen, M., Vunisea, A., Nash, W.J., Keeble, G., Demmke, D. & Andréfouët, S. 2009. Planning the use of fish for food security in the Pacific. *Marine Policy* 33: 64–76.

to a radio and only 11 percent had access to a phone.¹⁵⁴ At the national level, just 2 percent of households had a landline telephone, 21 percent had access to a mobile phone, and fewer that 1 percent of households had home Internet.

Figure 21: Household access to agricultural information and services, by province, 2017

	Province										
	Total	Choiseul	Western	Isabel	Central	Rennell Bellona	Guadalcanal	Malaita	Makira	Temotu	Honiara
Received agricultural information	20,586	1,388	2,647	1,001	313	46	5,496	6,772	1,276	1,366	283
Extension services	3,637	271	319	209	202	6	1,055	769	337	435	36
Radio	6,345	112	1,221	574	82	28	2,449	1,446	55	183	194
Television	567	-	61	23	-	-	209	243	-	-	31
Newspaper	2,562	82	537	186	-	-	1,290	287	-	89	91
Input agencies	501	34	99	23	13	-	235	30	23	25	19
Social media	786	34	172	-	-	-	451	96	14	-	19
Internet	256	-	149	-	-	-	73	-	14	-	19
Mobile	551	-	51	37	-	-	386	30	-	47	-
Other farmers	13,985	1,248	1,646	349	121	38	4,401	4,070	743	1,274	96
Other source of information	4,110	45	130	149	28	2	825	2,280	501	42	107

Note: The column totals may not add up due to missing or unspecified values

Source: Report on Agricultural Survey (2019)

During this consultation informants discussed challenges caused by the poor coverage and uptake of information and communication technology (ICT). Policy officers and extension officers explained that it was difficult to locate, access and communicate with rural farmers. Participants of the recent National Agriculture Survey (2019) listed technology and communications as key constraints to greater agricultural production and output.¹⁵⁵ Lack of ICT was reported as an issue across all agriculture sectors, including farming, forestry, handicrafts, fisheries and livestock and was among the top three constraints.^{156,157}

Development partners in the Solomon Islands supported a series of telecommunication projects (most notably the introduction of broadband Internet in 2012), resulting in significant uptake of mobile phones and Internet services. This has included a series of major infrastructure and systems management upgrades that enabled the Solomon Islands to generate, manage and use information better to advance health, education and trade. While it is expected that these improvements will be reflected in the upcoming census, there remain key weaknesses in the infrastructure that limit telecommunications coverage. 158

In a world of globalisation, there is a huge opportunity to support producers and the private sector in the Solomon Islands with developing and adopting digital technology to assist in scaling up all parts of

¹⁵⁴ Census 2009.

¹⁵⁵ Solomon Islands Government. 2019. The Solomon Islands Report on Agricultural Survey, 2017. Solomon Islands Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

¹⁵⁶ Broadband for Development Project. Available from: https://www.adb.org/sites/default/files/linked-documents/44382-022-sol-dc.pdf

¹⁵⁷ Solomon Islands Government. 2019. The Solomon Islands Report on Agricultural Survey, 2017. Solomon Islands Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

¹⁵⁸ https://www.adb.org/sites/default/files/linked-documents/44382-022-sol-dc.pdf

the food system: production, packaging, marketing and distribution. As new technology becomes available, advancement will depend on developing government and private sector partnerships to acquire basic infrastructure requirements, applying and promoting awareness of available contemporary and traditional technologies, and to improve confidence in exploring and adopting new technologies through improved digital literacy.¹⁵⁹

According to FAO, E-agriculture could be used to support capacity building, education and training, communication of standards and regulations, and organisation of extension services. E-agriculture services operating in other emerging economies are commonly providing seed, fertiliser and chemical catalogues (along with safety briefs), plant information (e.g. diseases, growing and harvesting conditions), online subsidy applications, and microfinancing for agriculture and market access. Applications have the potential to connect smallholder farmers to marketing and agricultural information to inform farmers' decisions better concerning input, output and market demand. Labour-saving devices could help women to work more efficiently, for example, a lightweight transeeder machine would make it easier for women to be involved in all stages of the value chain. 162

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¹⁵⁹ Ministry of Development Planning and Aid Coordination (DPAC). 2010. Solomon Islands Country Report for the 5-Year Review of the Mauritius Strategy for Further Implementation of Barbados Programme of Action for Sustainable Development of SIDS (MSI+5), Final Draft. Available from:

https://sustainabledevelopment.un.org/content/documents/1310Solomon-Islands-MSI-NAR2010.pdf (accessed: 25 August 2019)

¹⁶⁰ Trendov, N.M., Varas, S. & Zeng, M. 2019. Digital technologies in agriculture and rural areas – Status report. Rome. Licence: cc by-nc-sa 3.0 igo.

¹⁶¹ Trendov, N.M., Varas, S. & Zeng, M. 2019.

¹⁶² The Parliament of the Commonwealth of Australia. 2016. Food for thought: improving health and nutrition in the Indo-Pacific region. Joint Standing Committee of Foreign Affairs, Defence and Trade.

6. Significant food and nutrition policy advancements in the Solomon Islands (2010–2019)

The Solomon Islands has implemented a number of complementary food and nutrition programmes aimed at reorienting the food system and food environments such that they positively influence consumer behaviour. Several food nutrition policies were adopted under the national NCD Framework in 2009, and the Solomon Island adopted their first National Food Safety, Food Security and Nutrition Policy in 2010 following the Food Secure Pacific summit (2010). A *Helti Kaikai* Initiative was initiated by the Ministry of Agriculture and Livestock in 2014, although it remained largely unfunded. There are no evaluations, reviews or reports that can convey previous successes and lessons learnt, however, some of the key achievements identified throughout this consultation process include the following:

- The advocacy, adoption and implementation of national flour, salt and rice fortification strategies. Iodised salt is widely available as a standard and wheat flour is now being fortified with iron, zinc, thiamine, riboflavin, niacin, and folic acid. The country is finalising the implementation of fortification standards for rice to include iron, folic acid, zinc and thiamine.
- The adoption and widespread promotion of a Solomon Islands Guide to Healthy Eating, and subsequently a Pacific Guide to Healthy Eating, and the associated development, production and sharing of the Helti KaiKai Kit a suite of participatory nutrition resources and materials.
- The integration and ongoing implementation of High Impact Nutrition Interventions (prepregnancy care, routine iron/folic acid supplementation for pregnant women, breastfeeding promotion, infant and young child feeding, vitamin A supplementation and deworming packages), to provide equitable maternal, infant and child nutrition services across all clinic levels, particularly the first 1 000 days (pre-pregnancy to the first two years of life).
- The accreditation of sixteen schools as health-promoting schools, including vendor training to improve the healthfulness of foods provided.
- The establishment of Diploma in Nutrition and Dietetics course at the Solomon Islands National University (SINU) in 2016, which has supported the development of 19 degree-qualified graduates (Diploma and Bachelor). A further 45 are expected to graduate from either SINU or the Fijian National University at the end of 2019 and 2020 (totaling 64).
- The formation of a multisectoral committee, which led the development of a new suite of policies (introduced below).
- The establishment of the Food and Nutrition Security Impact, Resilience, Sustainability and Transformation (FIRST) technical assistance facility in the Solomon Islands, an FAO/European Union collaboration supporting policy and programmes to incorporate nutrition issues into agricultural production.
- The establishment of a school gardens project, engaging children and youths in growing and preparing food in boarding schools in rural areas of Guadalcanal, Malaita and Makira.
- The establishment of partnerships with private sector agribusinesses to outsource distributing
 of training and resources to farmers and producers, with potential to scale up the model and
 engage the youth.
- The ongoing work of Kastom Gaden Association (KGA) to engage farmers and growers to act collectively during production and harvest, archive and share knowledge of traditional foods and production, and to engage people-power to address major food and nutrition security challenges in the Solomon Islands.

7. Policy context for food and nutrition security in the Solomon Islands

7.1. Nutrition in national development frameworks

Improving access to sustainable and nutritious food for all has been recognised as essential for sustainable development by its inclusion in the SDGs. Achieving food and nutrition security, and promoting sustainable food systems, are cross-cutting issues critical to achieving almost every SDG. Having adopted SDG, Goal 2: Achieving Zero Hunger, the Solomon Islands is aiming to "end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round". Reforming the way people access and consume food in the Solomon Islands would have multiple benefits: in protecting environmental resources, promoting good health and nutrition, contributing to rural development, and the economic empowerment of women and the youth. For instance, sustainable food production systems may help to mitigate climate change and environmental degradation, and reduce vulnerability to disasters such as floods and droughts. 163 In addition, at the Second International Conference on Nutrition (ICN2) in 2014, countries from around the world committed to a framework of over 60 actions promoting enabling environments for nutrition.¹⁶⁴ These included investments in pro-poor and smallholder agriculture, increasing social protections, strengthening the delivery of health services and water and sanitation initiatives, improving food safety and quality, and promoting sustainable food systems. These would be achieved through the mobilisation of stakeholders and communities, and by implementing coherent public policies that ensure a whole-of-government response.

The Solomon Islands National Development Strategy (2016–2035) is the Solomon Islands high-level plan for achieving the SDGs and improving the social and economic livelihoods of Solomon Islanders. Promoting the growth and consumption of a healthy, sustainable diet is recognised to contribute to Objective 2 – poverty reduction; Objective 3 – improve health services; and Objective 4 – to nurture environmental sustainability and recovery (Table 4).

Table 3: Specific food and nutrition security objectives from the Solomon Islands NDS (2016–2035)

NDS objectives	Medium-term strategy	Overview of activities		
Objective two: Poverty alleviated across the whole of the Solomon Islands, basic needs addressed and food	Alleviate poverty, improve provision of basic needs, and increase food security.	Rural development programmes to promote local markets, incentives and subsidies for expanding cash crop production, local agriculture food gardens to go into mass production, improved interior lands access through roads, reinforce safe food production.		
security improved; benefits of development more equitably distributed.	Increase employment and labour mobility opportunities in rural areas and improve the livelihoods of all.	Nil		
	Improve gender equality and support the disadvantaged and the vulnerable.	Centres for vulnerable and disadvantaged, including disabled, women and children and elderly people in rural areas. New water and sanitation programmes are		

¹⁶³ Swinburn, B.A. *et al.* 2019. The Global syndemic of obesity, undernutrition, and climate change: The Lancet Commission report. *Lancet*, 393(10173): 791-846.

¹⁶⁴ Food and Agriculture Organization of the United Nations (FAO), World Health Organization. 2015. Conference Outcome Document: Rome Declaration on Nutrition. Second International Conference on Nutrition (ICN2); Rome, Italy.

		implemented based on accessibility by gender and vulnerable groups.
Objective three: All Solomon Islanders have access to quality health and education.	Ensure all Solomon Islanders have access to quality health care; combat communicable and non-communicable diseases.	Implementation of infant feeding guidelines, programmes that promote fruit and vegetables and salt reduction, nutrition promoting settings in health facilities, communities and schools. Hygiene awareness and behaviour change in communities, and access to clean water and sanitation facilities in schools, clinics and public institutions.
Objective four: Resilient and environmentally sustainable development with effective disaster risk management, response and recovery.	Manage the environment in a sustainable and resilient way and contribute to climate change mitigation.	Sustainable use of natural resources for food security and agriculture through rehabilitation of agro-ecosystems, identification of measures to mitigate climate change impacts on food production, promote sustainable subsistence-based farming systems and improved post-harvest handling, increased household food security and marketable surpluses and downstream processing. Undertake vulnerability and adaptation assessments and determine most vulnerable communities or sectors and adaptation options.

Source: Solomon Islands NDS (2016-2035)

The NDS targets do not include measures of childhood malnutrition, though many of the selected targets align to those set by SDG2 (To end hunger, achieve food security and improved nutrition, and promote sustainable agriculture) and include:

- Increase proportion of own food production in food consumption by households from 49 percent in 2006 to 52 percent by 2020.
- Increase the proportion of population consuming below recommended level of dietary energy consumption.
- Increases in the food production index (2004–2006= 100) from average 117 for 2008–2010 to an average of 130 by 2015 and over 150 by 2020.
- Reductions in the crop yield gap (actual yield as percentage of attainable yield).
- Crop water productivity (tonnes of harvested product per unit irrigation water).
- Annual change in degraded or decertified arable land (% or ha).

Other relevant targets include:

- Increase the number of agricultural extension workers per 1000 farmers (or share of farmers covered by agricultural extension programmes and services).
- Access to drying, storage and processing facilities.
- Reduce the percentage of population overweight and obese.
- Reduced prevalence of diabetes and hypertension by 5 percent.
- Reduce deaths due to non-communicable diseases.
- Increase diversification of food produced by 10 percent.

The social and economic outcomes associated with the triple burden of malnutrition (undernutrition, overweight, obesity and micronutrient deficiencies) in the Solomon Islands are not noted as a development priority in the NDS.

7.2. Guiding policy frameworks for food and nutrition action

Here we outline the main policy documents introduced to address nutrition and food insecurity, providing an overview of their approach and proposed governance structures.

National Food Security, Food Safety and Nutrition Policy (2019–2023)

The National Food Security, Food Safety and Nutrition Policy (NFSFSNP) is a high-level multisectoral strategy coordinating efforts across the health, agriculture, finance and revenue, trade, finance, commerce, women and education sectors. The draft policy aims "To ensure sufficient, safe, nutritious foods are readily available, accessible, affordable and acceptable to all Solomon Islanders at all times". The policy's comprehensive set of objectives includes addressing the triple burden of malnutrition; improving the quantity, quality, safety and affordability of nutritious foods; promotion of self-sufficiency; and using agriculture to promote economic opportunities. The comprehensive list of action areas includes leadership and coordination, sustainable farming and fishing, traditional food production, enforcement of food standards, incentives for production, marketing and trade of healthier foods, high-impact nutrition interventions for vulnerable groups, social marketing and consumer awareness and climate-related preparedness. It identifies women, children and school children as being more vulnerable to food insecurity and includes plans to prepare the population for increasing vulnerabilities related to disasters and climate change.

The policy has been in development since 2015, when the FIRST policy assistance facility (supported by FAO and the European Union) was established to support the Solomon Islands in working towards a more enabling environment for food and nutrition security and sustainable agriculture. It has undergone several iterations, and though it was submitted to cabinet in 2018, it has yet to be endorsed by the government, in part due to recent federal elections and leadership changes to the health and agriculture ministries. The policy includes an implementation plan, budget, and designation of responsibility to specific sectors and stakeholders. It calls for stakeholders to mainstream activities from the policy into their own corporate activities. The policy outlines over 100 strategic actions across its ten key policy areas, so further work may be required in considering how to operationalise each strategy, especially some of the particularly high-level strategies.

The policy will be governed by a technical working group that includes a range of stakeholders, with chairing duties rotated across MHMS, the Ministry of Education and Human Resources Development (MEHRD), MAL, the Ministry of Fisheries and Marine Resources (MFMR) and the Ministry of Finance and Treasury (MOFT). However, this governance arrangement has not yet been initiated and project partners have not yet met.

Lokol Kaikai Initiative (2019–2023)

The Lokol Kaikai Initiative (LKI) Initiative is a framework for action on food security by MAL in collaboration with other sectors. LKI outlines priority actions for improving access to, and affordability of local foods, primarily through programmes that promote local agriculture and fisheries production, post-harvest, marketing, processing and retail. This action-oriented framework identified actions to be taken by a range of government stakeholders from MAL, MERHD, the Ministry of Commerce, Industries, Labour and Immigration (MCILI), MOFT and MFMR as well as civil society groups such as KGA. A Lokol Kaikai Komiti will oversee the plan. The operationalisation of this plan is still being established as has only very recently been endorsed.

The Solomon Islands FIRST policy assistance mission is working to support the endorsement, governance and implementation of both the LKI and the NFSFSNP, which are designed as complementary policies; the NFSNSNP covers actions by health services, enforcement of food legislation, conservation and biodiversity, policies to reduce unhealthy food marketing and the production of foods linked to NCDs, while the LKI has a larger focus on training and support to farmers and communities, and the role of the agricultural extension services. They overlap across several action areas, including social marketing and consumer awareness to promote healthy and safe food, school food procurement programmes, emergency preparedness and climate change adaptation, actions to strengthen regulatory actions to promote healthy consumption. The NFSFSN includes an action area that strengthens food security information, while LKI includes the development of data tools to inform the food security and food production situation. While this indicates alignment across the plans, further work will be required in determining which activities are addressed, funded and governed through LKI and could therefore be considered a lower priority. There is an overlap in the partners being engaged towards the governance of both NFSFSNP and LKI, which has potential to create some inefficiencies and confusion.

Multisectoral National NCD Strategic Plan (2019–2023)

The Multisectoral National NCD Strategic Plan (2019–2023) sets out the key strategies and activities for the Solomon Islands to prevent and control NCDs, with a focus on prevention and wellness, health systems strengthening to improve NCD diagnosis and management, and monitoring and evaluation of progress of NCDs against key targets. The NCD targets for 2023 include reduction of sodium intake by 30 percent, and prevention of further increases in the prevalence of hypertension, diabetes and obesity. Approaches to promoting healthy diets are centred around educating the public on healthy eating, sensitising stakeholders on the need to create healthier food environments and to legislate for better food environments, including fiscal policies to reduce consumption of processed foods. The strategy has a specific focus on promoting health and nutrition within education institutions.

The NCD Strategy is to be governed from the Prime Minister's office and includes a detailed implementation plan outlining feasibility and policy implications. It also includes accountability indicators for each sector, as well as potential resource requirements and risks.

Rice and flour fortification policies

The fortification of wheat with iron, zinc, thiamine, riboflavin, niacin, and folic acid was stipulated in the 2010 Pure Food Regulations. The Food Fortification National Committee (FFNC) in 2015 moved to amend the legislation to mandate the fortification of rice with iron, folic acid, zinc, thiamine and niacin. A National Rice Sector Policy (2019-2023) was adopted in 2015 with the aim of improving food security, import substitution and income generation. A key challenge identified is to produce rice at such a scale that it can be commercially competitive against imported rice. The plan suggests that mechanisms for addressing this include investment in both smallholder and commercial rice sectors, and adoption of rice intensification systems to expedite commercial rice production to improve the management and coordination around rice production, marketing and processing. The larger strategy includes specific strategies to scale-up rice fortification to reduce nutrition insecurity.

¹⁶⁵ Imhoff-Kunsch, B., Shakya, I., Namohunu, S.A.D. *et al.* 2019. Potential dietary C contributions from rice and wheat flour fortification in the Solomon Islands: Results From the 2012-2013 Household Income and Expenditure Survey. *Food & Nutrition Bulletin*, 40(1): 71-86. doi:10.1177/0379572118817179.

The FFNC included both public and private sector stakeholders as well as development partners and academic institutions. The National Rice Sector Policy 2019–2023 suggests a shared coordination arrangement together with LKI. This would be beneficial to ensure that they are implemented as complementary policies and not as competing ones (e.g. rice versus local kaikai), in that the promotion of local food should also reduce the consumption of imported rice.

7.3. Policy coherence for nutrition across key government sectors

This section locates nutrition and food security commitments within the policy frameworks of key sectors of government. It aims to review the way in which relevant sectoral policies and plans reflect the adoption and operationalisation of their commitments towards food and nutrition security.

Agriculture-centred policy frameworks

The Solomon Islands Agriculture and Livestock Sector Policy 2015–2019 (ALP) captures food security under one of four overarching goals of food sovereignty. The strategy's objectives include rice fortification to improve nutritional value, and to improve the management of resources for rice and local food (kaikai) production. This includes providing farmer training on rice production and the promotion of local traditional food crops based on their superior nutrient value. Outputs for Poverty Alleviation, Enhanced Food Security and Rural Livelihood are at a very high level, stipulating that the sector will reduce import dependency, improve self-sufficiency, and promote food security. Outputs towards Reduced Dependency of Food Imports and Increased Agricultural Exports stipulate that the sector will promote local fresh foods as nutritionally superior to imported processed alternatives.

This is supported by the MAL Corporate Plan 2015–2019,¹⁶⁶ which aims to "Increase the production of local and traditional staple food crops and livestock at a level that the supply of food is coping with the increasing population" by strengthening national food production to buffer food crises, to promote the production of local fruit, vegetable and root crops, and to support farmers with climate-smart agriculture. The sector's performance outcomes include specific indicators around fruit and vegetable production and availability, and improved diets.

The Agriculture Extension Policy 2017–2021¹⁶⁷ aims to create a conducive environment for improved economic stability, rural development and nutrition and food security in the Solomon Islands, through the delivery of a modern, efficient and effective agricultural extension service. Its strategic approaches will focus on extending reach through partnerships with private sector partners to support business development, capitalising on ICT improvements and ongoing capacity development.

The Livestock Policy Guidelines 2015–2019 include a focus on building smallholder livestock capacity including poultry, pigs, chickens and honeybees, and the Ministry of Fisheries and Marine Resources Corporate Plan 2015–2019 includes in a focal area on "Fisheries resource and ecosystems management an objective to strengthen the contribution of small-scale fisheries to food and nutrition security", though many of the indicators relate to revenue generation and investment planning.

¹⁶⁶ Solomon Islands Government. 2015. Ministry of Agriculture and Livestock Corporate Plan 2015-2019, Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

¹⁶⁷ Solomon Islands Government. 2017. Agriculture Extension Policy, Ministry of Agriculture and Livestock, Honiara, Solomon Islands.

Fisheries and aquaculture-centred policy frameworks

The Solomon Islands National Fisheries Policy 2019–2029¹⁶⁸ recognises the importance of inshore (coastal) small-scale fisheries for food security and household income. Nutrition is captured under Strategic Policy Objective 1 on safeguarding inshore and inland fisheries and associated ecosystems and ecosystem services, for good nutrition and increased socio-economic benefits. Objective 1 also outlines that all fisheries under customary marine tenure will be managed using community-based resource management tools, while all commercial species of interest will be managed through national management plans. In addition, endangered and threatened species will be managed in accordance with international management measures to which the Solomon Islands is party and through targeted strategies and operational plans.

The National Fisheries Policy also acknowledges that new sources of fish are needed to meet future food security requirements, and aquaculture is one means of supplying future demand. Food security is captured under Strategic Policy Objective 3 on developing and establishing a sustainable and well-managed aquaculture sector that supports rural livelihoods, food security, economic return and stock enhancement. Objective 3 states that commodities for aquaculture development will be prioritised using the National Aquaculture Development Plan 2018–2023 as a guide, and that integrated strategic and legislative frameworks will support development and management of a sustainable aquaculture sector.

Food security is captured within the vision of the National Aquaculture Development Plan 2018–2023 as well as under several of the Plan's objectives. The Plan states that the Solomon Islands Democratic Coalition for Change government also recognised the potential for aquaculture to contribute to food security.

Health-centred policy frameworks

The National Health Strategic Plan 2016–2020 aims to reduce child mortality, improve water and sanitation and reduce prevalence of NCDs. Though reduction of child mortality and NCDs are key aims of the sector, the plan does not select these as part of the six nominated priority areas. The plan does not specifically identify strategies to mitigate, identify or address undernutrition or reference food and nutrition security. It does call for the development of legislation to address high calorie foods and beverages.

The sector reports annually against a series of core indicators as a performance measure. Prevalence of malnutrition in children under two years and hypertension in adults are included as core indicators. In 2014, the health sector adopted a Role Delineation Policy¹⁶⁹ to delineate better which services should be delivered across different primary health care locations. The service delivery package stipulates that high-impact nutrition services should be provided at all service delivery locations.

The Pure Food Regulations 2010¹⁷⁰ shape food quality and safety legislation in the Solomon Islands. Aligned to Codex Alimentarius, the standards include regulations for food packaging, labelling, advertising and food claims, food and commodity hygiene standards, and restrictions on breastmilk substitutes. The regulations mandate fortification of wheat flour and rice (iron, folic acid and zinc) and

¹⁶⁸ Solomon Islands Government, Solomon Islands National Fisheries Policy, 2019–2029.

 $^{^{169}}$ Solomon Islands Role Delineation Policy, World Health Organization December 2016.

¹⁷⁰ Solomon Islands Government. 2010. Pure Food Regulations (under the Pure Food Act 1996).

salt (iodine). They also delegate regulatory oversight and enforcement of the plan to the MHMS.

Women and youth-centred policy frameworks

The country's National Gender Equality and Women's Development Policy 2016–2020¹⁷¹ does not discuss the role of women in food security. However, the Strategy for the Empowerment of Women and Girls¹⁷² frames food production as an economic opportunity for women, but it does not outline an approach for achieving this. It calls for partners to improve access to land and development opportunities that will increase the participation of women in fisheries and agriculture, and their ownership of resources.

The Agriculture Extension Policy 2017–2021 includes a strategic area to "increase engagement with women", to capitalise on the role of women in food production and household food security. It calls on the sector to re-establish and resource a women's extension service and to offer household gardening support programmes. The policy states that it will increase engagement with the youth by re-establishing school gardening programmes and pique youth interest through agribusiness and farming.

The National Youth Policy¹⁷³ frames food production and entrepreneurship as potential economic opportunities for women and youths and calls on the health sector to empower the youth to engage in NCD-related issues to raise their awareness of diet-related causes of NCDs, so that "at least 75 percent of all the youth adopt good nutritional practices". The Youth Empowerment Strategy 2017¹⁷⁴ does not explore opportunities to engage the youth in FNS issues. There is a National Youth Employment and Entrepreneurship Strategy under development.

Education-centred policy frameworks

The Education Strategic Framework 2016–2030¹⁷⁵ aims to eliminate gender inequities in education, addressing a key underlying contributor to childhood malnutrition. It aims to build knowledge and skills to promote sustainable development, but it does not elaborate on the specific role of education institutions in delivering on FNS strategies. It does not reference approaches for health promotion in schools, or school food policies or promotion.

This is supported by the National Education Action Plan 2016–2020, which outlines how the sector will improve access, quality and management of education services, including early childhood education, secondary education and tertiary education. There is mention of using early childhood education as an opportunity to promote nutrition, but the promotion and creation of healthy food environments are not explicitly mentioned.

¹⁷¹ Solomon Islands Government. 2016. National Gender Equality and Women's Development Policy 2016–2020, Ministry for Women, Youth, Children and Family Affairs, Honiara, Solomon Islands.

¹⁷² Solomon Islands Government. 2017. A National Strategy for the Economic Empowerment of Women and Girls, Ministry for Women, Youth, Children and Family Affairs, Honiara, Solomon Islands.

¹⁷³ Solomon Islands Government. 2017. National Youth Policy 2017-2030, Ministry for Women, Youth, Children and Family Affairs, Honiara, Solomon Islands.

¹⁷⁴ Strategic Framework for Youth Development and Empowerment in Solomon Islands. 2017. Ministry for Women, Youth, Children and Family Affairs, Honiara, Solomon Islands.

¹⁷⁵ Solomon Islands Government. 2016. Education Strategic Framework 2016-2030, Development, Ministry of Education and Human Resources Development, Honiara, Solomon Islands.

Trade, commerce and labour-centred policy frameworks

According to the Customs and Excise Act¹⁷⁶ finance ministers are within their powers to impose taxes on imports, exports or goods produced in the Solomon Islands, as well as to revoke duties, with cabinet approval. Most goods, and all foods and non-alcoholic beverages, are taxed under a standard rate of 10 percent import excise, in addition to 19 percent goods tax, against the Harmonised Tariff System. Import tax collection is fully automated since the adoption of Automated Systems for Customs Data system, thus collection of tax at this point represents an efficient way to collect consumption tax. Products imported from other countries in the Melanesian Spearhead Group are exempt from import taxes. For example, Coca Cola products imported to the Solomon Islands are produced in Papua New Guinea and therefore exempt from import tax. The Solomon Islands is a signatory to the Pacific Island Countries Trade Agreement, which requires that they reduce import tariffs to zero on most traded products (although it includes a list of exemptions, including trade in alcohol and tobacco products).

In relation to the agriculture sector, the Solomon Islands Trade Policy Statement outlines an interest in moving towards higher value-added products rather than unprocessed copra exports. The Ministry of Foreign Affairs and External Trade (MFAET) is involved with multilateral trade agreements, although these currently do not have a strong focus on agricultural trade, but an agriculture subsector in the Trade Unit was recently established within MFAET.

Trade facilitation to increase access to markets is addressed within the Agriculture and Livestock Sector Policy 2015–2019 to link producers to markets via activities including conducting trade fairs, meeting trade agreements and developing a product brand and profile. Furthermore, within the Agriculture and Livestock Sector Policy, cross-sectoral services aim to increase the contribution of agriculture products to total merchandise export and enhance the Solomon Islands' export potential. Focused activities include developing a targeted tariffs structure, building links between production and trade policy, developing standards and capacity to meet requirements and improving transport-related infrastructure.

There are opportunities for greater linkages between the Trade Policy Statement, trade facilitation and access to export markets policy objectives outlined in the Agriculture and Livestock Sector Policy 2015—2019. In particular, the Solomon Islands Trade Policy Statement could include specific objectives to support and enhance the export crops and trade facilitation policies and activities outlined in the Agriculture and Livestock Sector Policy 2015—2019.

According to the Ministry of Commerce Industry Labour and Immigration Corporate Plan (2016–2019)¹⁷⁷, the Industrial Development Division has a core function to offer technical training in food processing and manufacturing technical skills to existing and potential entrepreneurs. The aim is to increase import substitution by local food industry, including sourcing equipment and machines, and supporting innovation in food product development and promotion.

To promote the protection of breastfeeding, the Labour Act 1996¹⁷⁸ mandates 12 weeks of paid maternity leave for women and allows that women be supported to breastfeed for up to two hours a day, with no interruption to remuneration.

¹⁷⁶ Customs and Excise Act (Cap. 121, 2003), part 2 section 7, Solomon Islands Government.

 $^{^{177}}$ Ministry of Commerce Industry Labour and Immigration Corporate Plan, 2016–2019, Solomon Islands Government.

¹⁷⁸ Labour Act. 1996. Solomon Islands Government (Chapter 7).

Sustainability and resilience-centred policy frameworks

The National Biodiversity Strategy and Action Plan 2016–2020 (NBSAP) establishes links between biodiversity and food security. It highlights the need for adopting clear directives on biodiversity management, such as the need for promoting the uses of native species in agricultural development, encouraging and revisiting traditional agricultural practices and encouraging people to consume local food. The revised NBSAP also encourages aquaculture but reinforces the need to encourage tilapia farming only in atoll islands, where food security is severely affected by climate change. Food security is listed specifically under Targets 6, 7 and 10 of the NBSAP, and is also embedded in the Solomon Islands Coral Triangle Initiative National Plan of Actions (2010).

The first priority of the country's National Adaptation Programme of Action is to "increase the resilience of food production and enhance food security to the impacts of climate change and sea-level rise." The National Climate Change Policy 2012–2017 lists food security under its Policy Directive and Strategies.

8. Policy approaches to major food and nutrition security challenges

Policy approaches to improve food supply chains and food environments

The NDS calls for increased production and distribution of locally produced food to promote food security, food sovereignty and to improve livelihoods. More effective supply chains (at community, provincial and national level) could have a large impact on food availability, food quality and health outcomes. The NFSFSNP includes as a key policy focus to increase sustainable agriculture and fisheries production. Strategies to achieve this include increasing support to farmers by strengthening the delivery of extension services and offering training and resources, encouraging sup sup and school-based food gardens. It also calls for the adoption of improved production, processing and marketing technologies, with the MCILI identified as an implementing partner. The NFSFSNP and LKI emphasise planting of nutrient-rich foods, though they do not elaborate on how this will be operationalised. The policy frameworks both identify the need to promote the development and production of traditional and indigenous foods, including by promoting planting and documenting of traditional food systems, but there is opportunity to support and promote better local value chains for traditional local foods, including appropriate storage, packaging and minimal processing.

The improvement of **quality and standards of agricultural products** is an objective of the Agriculture and Livestock Sector Policy 2015–2019 and Biosecurity Act 2013, operationalised through establishing good food manufacturing and value adding practices. There do not appear to be regulations around pesticide use and testing to increase health and safety of producers and consumers.

Environmental health is nested in MHMS, and the number of communities with safe drinking water is a key performance indicator. The NFSFSNP plans to **strengthen food safety and nutrition training** for food vendors, including food vendors in schools. There are also **plans to align food standards to Codex Alimentarius**, including development of standards for foods high in fat, sugar and salt, monitoring nutrient composition, food standards and claims, and inspections for domestic and imported food. There are calls for the collection and sharing of information on food safety risks to inform risk management.

The NFSFSNP calls to "improve affordability and accessibility to food items", and the **development and monitoring of standards** that can underpin the restriction of imports for foods high in fat, salt and sugar. There is potential to use such standards to underpin a range of NFSFSNP and LKI **policies that will improve the food environment,** including restrictions on marketing of unhealthy foods, innovative approaches that incentivise food producers to formulate, market and distribute nutrient-rich locally processed foods, restrictions on the use of sugar, sodium and unhealthy fat in food manufacturing, and to shape public food procurement (e.g. catering, school meal programmes). The NCD strategy includes a recommendation to review legislation to reduce incentives for production, trade and consumption of foods contributing to NCDs, particularly through fiscal measures, which is supported by LKI.

Policy approaches to overcome drivers of food and nutrition insecurity

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Rural populations are more vulnerable to food and nutrition insecurity, and most agricultural activity is in rural areas. The National Development Strategy (NDS) calls for increased employment and labour mobility opportunities in rural areas and improved livelihoods for all Solomon Islanders. The Rural Development Programme was established to support the development of rural communities, and policies call for establishing rural training centres to improve livelihood skills, and increasing extension

services to support rural farmers better. The health sector's Role Delineation Policy aims to ensure that a minimum service delivery package is available at rural health facilities.

The important contribution of food production and distribution to enhance rural development could be better elaborated to policy leaders, to generate support for programmes that enhance self-sufficiency, promote access to local markets and food networks, and create shorter food supply chains among communities and their local schools, businesses and through public food procurement. There are opportunities to position school-based food programmes better as potential economic generating opportunities for communities.

The National Health Strategic Plan has a **strong focus on improving water and sanitation conditions in rural communities**. Hygiene promotion and access to water and sanitation facilities are prioritised for schools and other public institutions that service women and children. The provision of water and sanitation is considered to represent basic needs in the NDS.

Achieving gender equity is a core part of the NDS. Policy frameworks demonstrate strong awareness of the **critical role of women in food production and distribution** and recognise that women are more vulnerable to health and nutritional risks, many of which are passed on through gestation and early infancy. Activities for addressing gender in food and nutrition issues are largely framed around education and awareness building, and primary health care services delivered during pregnancy. They identify women and children as priority targets for NCD prevention and recipients of increased access to water and sanitation facilities. Policy frameworks encourage women to support lokol kaikai promotion and awareness programmes and call for sectors to increase their engagement with women on home food production and preservation. The agricultural extension services are working to train female-extension officers and there is opportunity to generate a better understanding of what women need, and to elaborate on how they will engage in entrepreneurial activity related to food production and innovation. Further elaboration is needed on how they will engage women in the community in identifying, mitigating and addressing causes of food and nutrition undernutrition.

Young people are also identified as vulnerable to food insecurity and are acknowledged as a priority throughout the policy frameworks. In the LKI, NFSFSNP and Agriculture and Livestock Sector Policy 2015–2019, the youth are the target for a range of school-based initiatives, including: food and agricultural programmes, food safety and nutrition training in the curriculum, promoting the implementation of vegetable plots in schools, the enforcement of healthy school food policies, embedding of nutrition promotion in teacher training and through teacher in-services, and the establishment of school health committees that include parents. However, the decline of these school-based gardening programmes in rural areas is noted as a major issue in the Agriculture Extension Services Policy 2017–2021.

The NDS calls on **all sectors to integrate climate considerations** into all national planning. The NFSFSNP seeks action on both climate resilience and disaster preparedness, through better assessment of contributors to food insecurity, tracing and recall systems for food safety risks, and the development of a plan for emergency response and food aid opportunities. The Agriculture and Livestock Sector Policy 2015–2019 includes as a core strategy climate adaptation and preparedness, addressed through climate mainstreaming, by developing climate resilient crops and by developing community response approaches. LKI extends this with community assessment reports, training for farmers and promotion of climate resilient crops. Furthermore, the NCD Plan includes the development of guidelines for food

baskets for emergencies. There is some opportunity to articulate more clearly how production will need to change due to extreme weather or changing climactic conditions.

Policy approaches to influence consumer choices

The prevention of diet-related NCDs is a core objective of the NFSFSN Policy. The Multisectoral National NCD Strategic Plan 2017–2021 calls to raise awareness of NCDs at a political level through briefing papers, advocacy meetings and action by parliamentarians. The Multisectoral National NCD Strategic Plan 2017–2021, NFSFSNP and LKI all retain a strong focus on **education and knowledge generation**. For example, approaches to addressing diet-related NCDs predominately feature strategies such as behaviour change communications, social marketing, mass media, event promotion, and capacity building in food preparation, aimed at building public and consumer awareness around safe, healthy and appropriate foods. The Multisectoral National NCD Strategic Plan 2017–2021, NFSFSNP and the LKI plans are consistent in their support of school food promotion programmes, including the promotion of school food guidelines.

Policy approaches to protecting child health

The NDS, LKI, NFSFSNP all note the importance of addressing childhood illness as a direct cause of malnutrition. For instance, under a new Role Delineation process led by MHMS, all health facilities will offer the Integrated Management of Childhood Illness, Vaccination Services, Early-Newborn Care, and Infant Young Child Feeding.

The adoption of strategies that reduce high rates of stunting and micronutrient deficiencies are a key objective of the NFSFSNP, NDS and LKI. The NDS stipulated that all health facilities be equipped with a workforce competent in the provision of immunisation services, breastfeeding promotion and young child feeding advice. The NFSFSNP calls for the adoption of child-specific dietary guidelines and school feeding programmes for vulnerable groups. There is a strong emphasis on increasing access to High-Impact Nutrient Interventions, which is a package of essential interventions for nutrition, including breastfeeding promotion, infant and young child feeding, growth assessment and action, and micronutrient supplementation. Community-based management of acute malnutrition is not specified, although this may form a part of HINI. Hospitals in the Solomon Islands are encouraged to seek Baby-Friendly Hospital certification, and all nurses and health workers are trained in breastfeeding promotion. Policies reiterate the promotion of fortified products (NFSFSNP, LKI and MAL Corporate Plan), and call for better dissemination of materials promoting nutrient composition of crops and fortified foods.

9. Mechanisms and structures for the implementation of food and nutrition security strategies

9.1. Actor mandates and capacities related to food and nutrition security

The country's overarching policy frameworks for food and nutrition security assign implementation of specific responsibilities to various stakeholders and partners. This section outlines those responsibilities and explores the capacity of those actors to carry out and sustain policy actions.

Ministry of Agriculture and Livestock (MAL)

Mandate relevant to FNS: According to the NDS, the sector's main contributions to development include: scale up production and export of rice, palm oil, exotic fruit and spices, copra and cocoa, improve cattle and livestock projects; increase food production and food security to lift import-substitution and improve self-sufficiency, and by supporting other pro-poor policies to support small-scale farmers. A key aim of the sector is to increase production of local and traditional staple food crops and livestock, in keeping with population growth (as per the Corporate Plan). The extension services will strengthen the linkage between research, extension and farmers, offer community-based training, promote new technologies, and increase the participation of and enhance women and youth in the sector.

Capacity to engage in food and nutrition promotion: Historically the Solomon Islands population was self-sufficient with regard to food, and MAL's primary mandate was to produce export commodities (the three c's: copra, cocoa and cattle) to support rural and economic development. It was staffed by agriculturalists dedicated to increasing export production, overseeing biosecurity and quality standards, facilitating access to markets, and undertaking research and development.

According to MAL leaders, the ministry was not called on to engage in nutrition and food security issues until the early 2000s. After the Food Secure Pacific movement in 2010 they reoriented their services to educate farmers on food production and distribution, with a particular emphasis on rice production, vitamin rich crops and pest-eradication. According to leaders, the skills and knowledge required for these areas and tasks are still being acquired by the ministry. And while their inputs to adopt and sustain rice production have been heavily subsidised, they have had minimal funds designated for programmes that support production and distribution of local produce for consumption. MAL has also been working in collaboration with external partners to support a range of school food initiatives, though these require significant funding support and have not yet reached scale.

The key implementation mechanism for the sector is MAL's Agricultural Extension Programme, which coordinates the translation of sector mandates into farmer-support across all provinces. The reestablishment of the Agricultural Extension Programme following the civil conflict in 2007 has been one of the major achievements of MAL's Rural Development Programme.

The content being offered under the extension programme is highly technical and comprehensive in nature, covering food production and harvest, livestock management, pest and weed eradication, crop diversification, safe use of pesticides, small-scale processing, climate change adaptation and biodiversity, and nutrition and food security. The ongoing training, support, coordination and performance management of the 116 agriculture extension officers is a substantial task for MAL, one that absorbs a huge amount of human and financial resources.

The extension programme operates on a ratio of one extension staff member to six thousand farmers, which reportedly limits their effectiveness and reach. The technological and financial systems available to MAL reduce capacity to source and disperse financial resources to achieve reach. According to the MAL Agriculture Extension Policy, the recruitment and training of extension officers is a complex process, which on occasion has taken some years to complete.¹⁷⁹

While the extension officers have extensive knowledge about what is happening in the field, and the type of support required by farmers, they do not have access to current data and information on global and national market opportunities, or emerging food security risks and opportunities. They are provided with technical training at the start of their placement, and during annual MAL conferences, but their confidence and capabilities range, and their remoteness limits the support and oversight provided to them.¹⁸⁰

Ministry of Education, Human Resource Development (MEHRD)

Mandate relevant to FNS: MEHRD oversees equitable access to quality education and aims to see that youths and adults have appropriate skills for employment and entrepreneurship. It is responsible for the implementation of school food initiatives, and equipping children and young people with the knowledge and skills needed to lead active, healthy lives, and to promote sustainable development. It also plays a role in promoting entrepreneurship in agribusiness through internship and apprenticeships. The education sector is one of the leading agencies on the NFSFSNP technical working group, and the lead of a healthy school food-policy working-group.

Capacity to engage in food and nutrition promotion: Reportedly, MEHRD has been very proactive in integrating food and nutrition into the curriculum across a range of year-level subjects. It worked in close cooperation with MHMS and MAL to develop and finalise the new NFSFSP. MEHRD is working closely with MAL on implementing a school garden programme that engages children in growing food for consumption on school grounds, a significant programme for rural boarding schools where children have very limited dietary diversity. It has for many years worked in partnership with MHMS to implement Health Promoting Schools (HPS), although officers report that this has had limited uptake by schools. According to MEHRD, governance around food and nutrition is being reinvigorated with support from FAO and WHO, and they envisage a strong partnership to form under these new sets of policies.

The lack of resources to support and maintain programmes that improve the nutritional quality of foods in schools is reportedly a key barrier to the adoption of effective school food policies in the Solomon Islands. According to stakeholders, children quite often go hungry at school as most rural schools do not have a canteen, nor do they have the financial resources to provide food via school feeding or breakfast programmes. Large numbers of urban schools implement the school garden programme, but this remains reliant on farming inputs from MAL (tools and seeds) and is not yet self-sustaining. MEHRD would like to see HPS and the school garden programmes implemented at scale, but the lack of resources has constrained their ability to implement, monitor and sustain food production and promotion activities at the rural level.

Schools with food vendors (mostly urban) are encouraged to use healthy food guidelines. Though

¹⁷⁹ National Agriculture Extension Policy. 2017–2021. Solomon Islands Government.

¹⁸⁰ National Agriculture Extension Policy. 2017–2021. Solomon Islands Government.

reportedly many have been very engaged and supportive of trialling programmes that promote health and nutrition, policy officers report that they are viewed more as short-term programmes than as systemic changes in practice.

Ministry of Health and Medical Services (MHMS)

Mandate relevant to FNS: The ministry's primary contribution to the NDS is to ensure that Solomon Islanders have access to quality health care. Health agencies have traditionally adopted a lead-agency role in food and nutrition policymaking. ¹⁸¹ It plays a leading role in addressing and mitigating some of the underlying determinants of malnutrition by providing access to maternal and child health services and promoting healthy environments.

Capacity to engage in food and nutrition promotion: MHMS is the main provider of health services in the country; acting as legislator, funder and health provider, ¹⁸² and has led and chaired food and nutrition-related committees, including the National Codex Committee, the Flour Fortification Committee, the previous National Food Safety, Food Security and Nutrition Policy 2010–2015, and the previous National NCD Strategy. Its divisions include a Health Promotion Division, a Reproductive, Maternal and Child Health Division, an NCD Division, and an Environmental Health Division.

The Nutrition Unit sits inside the Reproductive, Maternal and Child Health Division. The unit has experienced extremely high staff turnover during the past 15 years, with the highly qualified nutritionists now working for other institutions. The Nutrition Unit currently comprises two qualified staff that work collaboratively with other divisions. Their main investment over many years has been the roll-out of HINI including breastfeeding promotion, routine supplementation, growth assessment and action, and complementary feeding across health services. It is also involved in training healthy village promoters as a part of a Health Promoting Villages initiative supported by the Japan International Cooperation Agency (JICA), and on Health Promoting Schools to improve the standard of foods being provided in schools.

An unequal distribution and skills mix across professional specialties has been highlighted as a challenge within the MHMS, along with performance accountability and discipline. Throughout this consultation MHMS demonstrated a strong commitment to building the nutrition expertise across both its sector and others. Structural reforms initiated by the new leadership have been instigated that involve reviewing human resources to match evolving needs. Senior staff of MHMS indicated that they intend to establish a cohort of provincial nutrition positions, and support the Nutrition Unit to adopt a leadership role in supporting them.

Policy leaders in the sector are very committed to improving nutrition and addressing NCDs as a priority moving forward. Some of the emerging programme areas, such as Health Promoting Schools and Healthy Villages are shaping up as exemplary programmes for collaboration across divisions, as well as with other ministries and stakeholder groups, including communities.

Ministry of Fisheries and Marine Resources (MFMR)

Mandate relevant to FNS: The country's National Development Strategy and Solomon Islands National

¹⁸¹ World Health Organization (WHO). 2018. Global nutrition policy review 2016-2017: country progress in creating enabling policy environments for promoting healthy diets and nutrition. World Health Organization, Geneva.

¹⁸² The World Bank. 2018. Solomon Islands Health Financing System Assessment: Spend Better.

¹⁸³ The World Bank. 2018.

Fisheries Policy 2019–2029 both reiterate the role of fisheries in achieving and sustaining food security, given that nearly half of all women and 90 percent of men in rural coastal areas fish or collect aquatic resources for food and income. MFMR is identified as a critical food and nutrition security partner if the country is to avert potential shortfalls in fish supply linked to population growth on inshore fisheries and climate change. According to the NFSFSNP, MFMR is responsible for "improving and strengthening the contribution of small-scale fisheries to alleviate poverty, food and nutrition security". Its corporate plan stipulates that it will use resource and ecosystems management to strengthen the contribution of small-scale fisheries to food and nutrition security. According to the Solomon Islands National Fisheries Policy 2019–2029, the funding of technological developments in the aquaculture sector will be vital to address food security issues.

Capacity to engage in food and nutrition promotion: According to the Solomon Islands National Fisheries Policy 2019–2029, the contribution to food security is offshore fisheries, inshore fisheries, inland freshwater fisheries and the aquaculture sector. We were unable to consult with MFMR during this consultation process, although its engagement and collaboration will be critical to ensure those activities are carried out in a way that promotes nutrition and food security outcomes.

Ministry for Commerce, Industry and Labour and Immigration (MCILI)

Mandate relevant to FNS: The Ministry for Commerce, Industries, Labour and Immigration is responsible for mobilising investment and resources to promote industry development, entrepreneurship and the development of small and medium-sized businesses. MCILI has a mandate to support women and youth with generating entrepreneurial opportunities. It is also responsible for supporting initiatives in food processing to promote import substitution. According to its corporate plan, MCILI offers support for potential food producers by assisting with sourcing equipment and machinery (for small to medium-sized businesses), ¹⁸⁴ as well as training in food product development, processing, manufacturing and promotion (farming and processing). It also offers business development training, grants for business development, and supports companies or small businesses with buying processing equipment.

Capacity to engage in food and nutrition promotion: MCILI's resources have largely been dedicated to promoting the production, marketing and export of copra, cocoa and kava products. The costs associated with establishing food processing facilities, and the marketing and distribution of those foods across a small market limits opportunity for successful food product development, especially with the widespread availability of competitively priced imported alternatives, and the limited resources of potential customers. One option would be to support food processing cooperatives and association models, although MCIL officers report that they have not had success with this in the past.

Stakeholders have emphasised the need to support and incentivise MCILI to promote the production and processing of local foods for consumption more systematically, and to support innovators and businesses with accessing the requisite local and export markets. One example of where it has successfully supported food production development in a small business setting has been in the production of cassava flour. However, the flour remains quite costly to produce, and is considered a luxury good, and is not exported at scale.

¹⁸⁴ MCILI Annual Workplan 72017, Industrial Development Division (IDD), Ministry of Commerce Industry Labour and Immigration Corporate Plan (2016–2019).

Although MCILI services are open to women and youths, those groups have only occasionally been key beneficiaries. There is further scope to ensure that their approaches differentially favour women and youths.

Ministry of Finance and Treasury (MOFT)

Mandate relevant to FNS: MOFT is responsible for facilitating the provision of sound advice on monetary, budget and fiscal policy to the Solomon Islands Government. MOFT is mandated to institute fiscal policies that influence the affordability of foods and beverages. It has been assigned responsibility for the implementation of health taxes, including taxes on sugar-sweetened beverages (SSBs).

Capacity to engage in food and nutrition promotion: MOFT has instituted an economic reform process seeking alternative mechanisms for revenue generation. It has requested the technical inputs of MHMS to inform the design of a tax on SSBs and other foods and introduced a process to tax imported foods.

Private sector: farmers and producers

Mandate relevant to FNS: Civil society (individuals and groups) engagement is critical to addressing food and nutrition challenges. Farmers and producers are key stakeholders in the agriculture sector, and they offer critical insights into how to improve access to, and consumption of, healthy foods.

Capacity to engage in food and nutrition promotion: Smallholder farmers (subsistence and small cash-croppers) make up the major proportion of the farming population. Most farmers in the Solomon Islands operate in rural and remote areas where they face substantial barriers with regards to transport and telecommunications. The main link between farmers and those offering support services is via the Agriculture Extension Services. As discussed, extension officers experience major challenges in offering extension services to farmers, mainly due to limited funding. Some of the farmers we met report not having had any contact with the extension programme at all.

Farmers and producers face barriers with accessing markets for multiple reasons: high domestic market prices, lack of marketing networks and limited dissemination of market information (supply and demand), low volumes of products, affected by high prevalence of pests and diseases, and a limited number of buyers.

Farmers report that the focus on agribusiness by government has led to some inequalities in access to capacity-building opportunities. The emergence of farmers' networks, through the Pacific Horticultural and Agricultural Market Access Program (PHAMA Plus), has helped farmers to form connections, share knowledge and provide support to one another. For instance, there is a focus on cooperative development and cluster farming for small-scale farmers to maximise market opportunities.

Most farmers live in rural areas and are at higher risk of food insecurity (as per earlier analysis). Expectations of them to produce foods that promote food and nutrition security may not be met without sufficient training, financial incentives, and connections to local and global market opportunities.

Private sector: agribusiness

Mandate relevant to FNS: Agribusinesses play a key role in the food supply chain, specifically relating 61

to processing, value adding, packaging and bringing food products to domestic market, or by enhancing farmer livelihoods. Some of the agribusinesses with mandates relevant to FNS include JEDOM Organic Fruits, which focuses on value addition of crops into organic dried fruit snacks, chips, fruits, muesli and chutney; Island Own, which supports farmer processing of coconut into milk and desiccated products; Kokonut Pacific Solomon Islands (KPSI), which is responsible for the provision of direct milling equipment to farmers, processing and export of premium grade virgin coconut oil and other coconut products; Maraghoto Holdings, which focuses on production, processing, marketing and export of indigenous fruit and nuts; and Sol Agro, which focuses on organic product development, including ngali nuts. There are additional private sector stakeholders whose mandates are predominantly associated with production, processing and export of food and non-food commodities and are thus outside the scope of this report.

Capacity to engage in food and nutrition promotion: A focus on agribusiness partnerships within the RDP has increased efficiency for service delivery and increased farmers' access to markets, by providing grants to small and medium enterprise agribusinesses, such as KPSI and co-partners (coconut mill operators and farmers) in order to create value-chain partnerships. Within the programme, 90 percent of partnerships are on export crops, e.g. ngali nuts, honey and livestock feed. Agribusinesses with innovative business plans can also apply for financial/grant support from MCILI.

The Technical Centre for Agricultural and Rural Cooperation Pacific Islands Private Sector Organisation and International Fund for Agricultural Development are supporting a project aiming to enhance the production and marketing of nutritious local foods and fish in an environmentally sustainable way to improve local food supply, income and nutrition outcomes.¹⁸⁵

Other government sectors

National policy frameworks also identify responsibilities for addressing food and nutrition security for MFMR, the Ministry for Women, Youth, Children and Family Affairs (MWYCA), and MFAET. MFAET is nominated to engage in import restrictions to foods high in nutrients known to contribute to NCDs. The NDS calls for women and youths to be engaged in agribusiness opportunities. Women are responsible for growing and selling a large proportion of food in the country and play a leading role in addressing household food security. As the agency responsible for the economic and social empowerment of women and youths, MWYCA should ideally be engaged in the implementation of FNS policies.

Development partners and NGOs

There are many development partners active in the food and nutrition security space, including FAO and the European Union as funders of FIRST and the RDP; the Australian High Commission, New Zealand High Commission, the Taiwan Technical Mission (TTM), FAO, Korea International Cooperation Agency (KOICA), JICA, The World Bank, and The Secretariat of Pacific Communities (SPC). FAO is the leading partner supporting the Solomon Islands to deliver FIRST. UN partners, working within MHMS (WHO, UNICEF), coordinate their inputs on a collaborative maternal and child health and

¹⁸⁵ Thow, A.M., Farmery, A., *et al.* 2019. Stocktake analysis of the agriculture sector in Solomon Islands. For FAO, FIRST (unpublished).

¹⁸⁶ During the Food and Nutrition Diagnostic, diplomatic ties between SIG and Taiwan were cut. Therefore, information regarding programmes operated and funded by TTM and the ICDF may no longer be correct.

¹⁸⁷ Food and Agricultural Organization (FAO). 2019. Food and Nutrition Security Impact, Resilience, Sustainability and Transformation (FIRST) Annual Progress Report.

nutrition initiative. Donor partners, including the Australian High Commission and the New Zealand High Commission, align financial support to national strategic plans and development strategies, as opposed to direct funding of specific development challenges.

PHAMA Plus, largely funded by the Australian High Commission, has also been working to increase agricultural production, and FAO works to increase agricultural production. The FAO programme to strengthen the capacity of farmers' associations operated from 2015–2018. The programme strengthened capacity of MAL support services and identified opportunities and requirements for value added products.

TTM, which recently (2019) ceased work in the Solomon Islands, had agricultural demonstration farms in Honiara and Malaita, and provided extension and technical support, through training programmes and field demonstrations. It also supply subsidised inputs such as piglets, seeds, fertilisers, and tools. Farmers reported that following support from TTM they experienced increased rice production as well as decreased labour and costs.

KGA has worked to support communities to achieve food security by encouraging self-reliance and the production of sustainable, organic food for families, communities and the local market. It establishes and manages community seed-saving initiatives and facilitates the sharing of traditional crop and food knowledge and resources. KGA operates as a network with a technical function, bringing together over 500 private, public and civil society members from across the country to exchange information and knowledge. KGA reaches rural communities via a small number of paid staff, through lead farmers across its membership base, and a partnership with MAL. KGA's FNS-related contributions include crop diversification, collection, cultivation, recording, sharing and promotion of traditional varieties and strains of fruit and vegetable, post-disaster sharing of cultivars with areas experiencing loss, and demonstration activities showing innovative ways to rejuvenate land during recovery. It operates hospital gardens to feed inpatients and provide discharging mothers with seeds and materials to grow foods traditionally provided to babies and infants. KGA has for a long time (and with minimal funding) supported school sup sup gardens. It used to be a recipient of direct funding from the Australian High Commission, but this has recently been reduced, leading to their decreasing staff from 20 to just six. KGA receives some funds from MAL and FAO to deliver specific activities and produces income from small revenue generating activities. More recently it has been accepting sponsorship funds from Solomon Tobacco so that it can sustain its FNS activities.

Grow Green Eat Green is a small NGO established to support the implementation of sup sup garden programmes in a number of boarding schools. They support schools to design and implement school garden programmes that engage children and youths in the production of fruit and vegetables for consumption in school meals. This initiative was spurred by reports that children in boarding houses were consuming a diet with very little nutritional value (largely rice and bread). While they had success in establishing gardens in some schools, they cannot sustain their activity without ongoing funding to support and incentivise schools.

SINU offers specialised training in Public Health Nutrition and Dietetics with the focus on promoting population nutrition well-being and therapeutic diets and has now graduated two cohorts of nutritionists. The university has also started to undertake food and nutrition research in collaboration with international academic groups, and they are interested in scaling up their capacity in this area.

9.2. Mechanisms for governance and implementation

9.2.1. FOOD AND NUTRITION LEADERSHIP

Political leaders are accountable to the NDS, which includes goals to improve food security and achieve food sovereignty. In the past, stakeholders had not felt strong political support or stewardship for issues surrounding food and nutrition security in the Solomon Islands, reducing their oversight (both across sectors and within organisations). More recently, political support for nutrition has been indicated by the country's Deputy Prime Minister (a former medical doctor), the Permanent Secretary of Agriculture and the Under Secretary for Health Improvement, who have committed to the new food security strategies (LKI and NFSFSNP), indicating that they will prioritise the governance and acceleration of the food security strategies forwards.

9.2.2. IMPLEMENTATION AND GOVERNANCE MECHANISMS

According to stakeholders, cross-sectoral governance for food and nutrition has in practice been a key barrier to effecting multisectoral implementation. Participation in governance groups has often shifted to more junior officers with limited influence or it has petered out completely. The governance group overseeing the 2010 NFSFSNP was never fully operational and discontinued early in its implementation.

Though the NFSFSNP and LKI have not been officially endorsed, as an interim measure, the National School Food and Nutrition Committee, responsible for school food programmes, has acted as the committee overseeing the adoption and implementation of both the LKI and NFSFSN. This group is chaired by MEHRD and includes MEHRD, MAL, MHMS, WHO, FAO, KGA and TTM. Longer term it is intended that this governance group will be expanded to include UNICEF and World Fish, with chairing duties among health, agriculture and education. There is discussion that there is potential for amalgamation with the Lokol Kaikai Komiti overseeing the LKI and the Food Fortification National Committee. It is not clear yet whether two separate multisectoral committees will govern the LKI and NFSFSNP, although the plans have a slightly different (though complimentary) focus, they will both involve many of the same stakeholders. Stakeholders suggested that a dual governance arrangement would be useful for implementing multisectoral food and nutrition policies; one that engages policy leaders from across different ministries in accountability measures, but encourages operational staff to communicate regularly (formally and informally). The more recent National Food Fortification Committee was given as an example of effective governance. The committee was chaired by the Under Secretary for Health Improvement at the MHMS and included both public and private sector stakeholders. It was underpinned by a clear plan of action to operationalise and monitor the policies, and parties were repeatedly made aware of their responsibilities and delivery timeframes. Additionally, staff were encouraged to engage in informal communications to maintain momentum.

Implementation of the food and nutrition policy frameworks has not officially begun, although many stakeholders are implementing strategies that fall within their usual business. For instance, MAL and MEHRD support school food initiatives such as school food gardens, and the Nutrition Unit at MHMS has been implementing health service-oriented strategies (i.e. nutrient supplementation, and identification and management of undernutrition in children), breastfeeding promotion and health policy.

Participants were unanimous that there were not enough implementing staff to cope with the

workload at the national and subnational level, and that limitations around human resources for health, food and agriculture have formed a significant bottleneck to service delivery. More specifically, stakeholders felt that there were not enough implementing actors with general role-related skills such as project management, staff management and evaluation, and that the knowledge and skills specific to food and nutrition were lacking.

The workforce with formal training in food and nutrition has historically been chronically low, with fewer than nine trained nutritionists employed in the public service, five of whom work as clinical dietitians. Agricultural workers have not traditionally had training or capacity in nutrition-sensitive agriculture. Both the agriculture and health sector have faced challenges in managing recruitment, improving role-related accountability and high rates of absenteeism. Recruitment to different sectors has been reactive rather that proactive. There have been high rates of attrition by experienced nutritionists to international development organisations or SINU. However, six of these nutritionists continue to support food and nutrition security in the Solomon Islands in their new positions.

9.3. Resourcing for nutrition and food security implementation

The country's economic goals are to achieve an affordable and sustainable budget, which limits debt, including through improved revenue collection mechanisms. ¹⁹⁰ In 2017, MOFT spurred a major tax reform process ¹⁹¹ to overcome fiscal inefficiencies and remove anticompetitive policies. The process sought to identify new revenue streams that would generate benefit across sectors, stimulate private sector growth and attract foreign investment. Together with the government, development partners in the Solomon Islands formed a Core Economic Working Group, to identify appropriate economic performance indicators. Indicators being discussed include the adoption of taxes on tobacco, alcohol and SSBs. The national tax reform emphasised the effectiveness of consumption taxes, and the identification of more reliable sources of revenue.

The limited funding for nutrition and food security strategies was nominated by stakeholders as the number one barrier to implementation and effectiveness. The country implemented a new centralised financial management system as a measure to reduce misallocation of resources, waste and misuse of funds. The MOFT-managed system has initially slowed funding disbursements and the delivery of activities, particularly where funds are directed towards provincial implementation. According to finance personnel, this could be improved if policy officers better understood the system and process and both the submitting and approving personnel followed up on incorrectly completed forms.

Both the LKI and the NFSFSNP include substantial fully costed operational plans. They were written with an expectation that each sector would raise the revenue required to deliver on strategies assigned to them. According to stakeholders from finance, joint funding of multisectoral plans in this way requires an extremely coordinated approach from ministries involved, and that it would be difficult because the budgets of each ministry are aggregated at the functional level (e.g. salaries, electricity, fuel) or project level (e.g. an externally funded fruit-fly project at MAL). The analysis of financial support for FNS found that none of the three ministries leading FNS activities had sufficient financial

¹⁸⁸ The World Bank. 2018. Solomon Islands Health Financing System Assessment: Spend Better.

¹⁸⁹ The World Bank. 2018.

¹⁹⁰ Solomon Islands Government. 2017. Discussion Papers: Solomon Islands, the Case For Tax Reform. Paper 1. Honiara, Ministry of Finance and Treasury.

¹⁹¹ Solomon Islands Government. 2017. Discussion Papers: Solomon Islands, the Case for Tax Reform. Honiara: Ministry of Finance and Treasury.

¹⁹² Solomon Islands Government. 2017.

support for their contribution, and leaders felt it was doubtful they would access additional funds in the current economic climate (2019).

Development partners are particularly interested in supporting actions to address food and nutrition. However, their resourcing decisions are aligned to sectoral strategic plans, on the expectation that key issues will have already been given priority. For instance, funding provided by development partners to health is via budget-support mechanisms, and aligned to the National Health Strategic Plan, which does not explicitly commit to approaches to address food and nutrition security. Policy officers expressed that they do not have a platform to communicate funding shortfalls to policy leaders, and policy leaders working with development have not championed this policy area. This has fed into the low priority cycle for nutrition and contributed to the lack of action in such areas.

9.4. Data, learning and knowledge transfers

Stakeholders recognised that data and reporting of successful and poorly implemented initiatives are critical for advocating and improving policy and resource allocation decisions. However, there are no reports or data sources to inform implementation towards food and nutrition security.

There is no system for collecting and reporting data on food and nutrition security. The food and nutrition situation is currently informed by Household Income and Expenditure Surveys, economic forecasts and health surveys (STEPwise approach to surveillance and Demographic Health Survey). MAL collects data into an information system, but it is not clear what this can measure. An agriculture census conducted in 2019 provides insight into the location and needs of farmers, producers, cooperatives and businesses.

The NHSP and NFSFSNP both outline a priority for vulnerable groups in terms of resource allocation and service delivery. During the consultation process, implementing stakeholders indicated that they would like more information on the needs of women growers, producers, and for people who are more vulnerable to FNS from a health and socio-economic perspective.

Stakeholders have suggested that the translation of reports, surveys, research and other sources of data is really important in the Solomon Islands, especially where large numbers of useful (but lengthy) reports are produced by various stakeholders and development partners. They expressed that survey data and analysis such as these were very rarely presented in an accessible and actionable way. They suggested this might also assist in ensuring that policy leaders used this information in making decisions around needs, priorities and resource allocation.

10. Credibility and realism in effecting and sustaining implementation of food and nutrition security strategies

10.1. Summary of policy opportunities

This review has found that the frameworks currently overarching the food and nutrition security space – the National Food Safety Food Security and Nutrition Policy 2019–2023, the National Noncommunicable Disease Strategic Plan 2017–2021 and Lokol Kaikai Initiative 2019–2023 and the National Rice Sector Policy 2019–2023 – present a fairly comprehensive set of strategies to lift production systems, improve food environments and influence consumer behaviour (as per Figure 1). These policies are well complemented by the MAL Corporate Plan 2015–2019 and Agriculture and Livestock Sector Policy 2015–2019, which outline a comprehensive range of strategies aimed at improving the supply side of food and nutrition systems – by promoting fruit and vegetable production, processing and distribution, connecting farmers to agribusiness opportunities, and by fostering self-reliance. Implementation of these policies should ideally accelerate due to the extensive consultation and planning processes associated with FAO FIRST, including the production of this analysis.

The diagnostic exercise identified a number of opportunities to improve food systems and food environments more comprehensively such that they promote health and improve farmer livelihoods. Access to markets, post-harvest losses, and economy-of-scale were all factors limiting the production and retail of both fresh and processed local foods in the Solomon Islands. Despite strong rhetoric around the importance of fish and seafood to food security and sovereignty, there were very few actions to promote more widespread consumption, as a complement to supply-side measures. There is thus an opportunity to foster greater policy attention to issues around food (agriculture and fish) supply chains, and to incentivise the scale-up of production and processing of local foods for distribution in both domestic and export markets. Developing a stronger whole-of-government focus on value chains may help to harness the mandates and expertise of other ministries and agencies, and provide implementing partners an opportunity to operationalise the multisectoral approach.

Additionally, we noted that both the relevant policy frameworks, and the implementing staff, place significant emphasis on education and knowledge generation. While education and literacy are critical actions for improving food and nutrition security, our conceptual framework shows that it is equally important to address the structural issues that ultimately shape the way in which consumers make decisions about food and diets (as per Figure 1). The issues needing more extensive planning and support are those that will ultimately translate into relative improvements to the proximity, promotion and pricing of healthy foods and beverages. This focus on consumers would be complemented by the proposed development of nutrient standards that can be used to underpin food environment-oriented measures, including: restrictions around the marketing of unhealthy foods, promote innovative approaches that incentivise food producers to formulate, market and distribute nutrient-rich locally processed foods, and to restrict the use of sugar, sodium and unhealthy fats in food manufacturing and public food procurement (e.g. catering, school meal programmes).

The policy frameworks strongly acknowledged priority for those groups with higher levels of vulnerability, but there are few data on which groups these are, and opportunities to articulate more clearly the ways in which they would identify and meet the specific needs of these group moving forward. For instance, nearly all relevant policy frameworks (from the National Development Strategy down) note the importance of engaging women and youth in addressing food and nutrition supply and

consumption challenges and generating economic opportunities for them. However, there was no articulation of how the different strategies might more equitably target and serve the interests of women and youth to contribute to food and nutrition production, providing them with economic opportunities.

10.2. Summary of factors that support policy scale-up

Both the policy review and the consultation process reflected concern around the transition of the Solomon Islanders away from traditional diets and towards processed imported alternatives, and an acknowledgement of the potential impact of the triple burden of malnutrition on personal, social and economic development. The policy documents and consultation process undertaken here demonstrated unanimous support by both policy leaders and stakeholders to improving the food and nutrition status of Solomon Islanders, and a strong discourse of commitment to the new policy frameworks needed to achieve that.

We also identified other attributes that we believe will facilitate the scale-up of implementation for FNS strategies in the Solomon Islands. Both key agencies leading on the delivery of FNS strategies (agriculture and health) are under new leadership, both of which are reportedly strongly motivated to improve the performance of their respective agencies against deliverables. These leaders are supported by under-secretaries and directors who share their vision and an interest in discussing policy barriers and opportunities for the scale-up of nutrition and food activity.

The establishment of a FIRST policy assistance facility in Honiara, and the colocation of a full-time implementation officer inside MAL to support policy governance and implementation mechanisms should accelerate efforts and introduce technical support at strategic opportunities.

The establishment of formal training opportunities has significantly increased the cohort of local nutrition graduates with the technical skills and motivation to contribute to nutrition and food security actions. With the strategic establishment of positions across relevant organisations and governance levels, and the right supervisory support, the increase in technical capacity could help to accelerate more rapidly the scale-up of nutrition and food security activities.

The Solomon Islands has facilitated a close working relationship with its development partners, who are committed to support it to progress towards achieving the SDGs. There are also a number of NGOs, such as KGA and World Vision, with extensive experience and community reach, which have a specific interest in the delivery of nutrition services across communities.

Summary of core political economy challenges for FNS programs

In the context of a post-conflict environment, with a declining resource base and development budget and a rapidly growing population, **the Solomon Islands faces some major economic challenges.** A key priority for the country to achieve sustained and inclusive growth will be to identify opportunities for revenue generation. The country has had a strong focus on economic development, which has likely emphasised the production of export commodities over smallholder farming across the agricultural sector. Encouragingly, a recent country diagnostic from the World Bank recognised the production of food by smallholder farmers and fishers as a top-tier policy priority for the country.¹⁹³

Nutrition is a slow-burning issue spanning multiple elected governments.¹⁹⁴ The invisibility of nutrition issues (particularly issues stemming from dietary diversity), the absence of dedicated solutions in the NDS, the lack of (good or poor) programmatic results, and the positionality of nutrition as the responsibly of a small implementing unit within the health sector, has contributed to **reduced visibility** to the critical need to address food and nutrition security.

There has been a lack of high-level ownership and stewardship for previous iterations of policies addressing food and nutrition security. Although policy documents express concern for dietary problems and challenges being faced with regard to growing and accessing healthy food, this diagnostic exercise found that there is limited political attention paid to nutrition, and limited oversight by policy leaders to its scale-up.

Multisectoral food and nutrition policymaking in the Solomon Islands has become locked in a low priority cycle. ¹⁹⁵ This has limited adoption of policies across sectors and accountability, and policy makers and implementers have not been pressured to prioritise them among a crowded agenda. The low priority for nutrition has limited the possibility of nutrition issues being prioritised for further human and financial resourcing, and as a result they have suffered a chronic shortfall in capacity.

Although there is expressed support and enthusiasm for food and nutrition strategies, it has been difficult to build genuine multisectoral collaboration to implement them. Apart from agriculture, almost no other sector policies acknowledged their key role in the food and nutrition space, nor reflected commitments to it. That the two multisectoral governing mechanisms outlined for the NFSFSNP and LKI have not been formally established or operational suggests a limited priority for food and nutrition policy in comparison with other health and development challenges. Actors from other relevant ministries, the private sector and civil society each have wide-ranging objectives and interests. Their varying engagement in this process has illustrated that food and nutrition security may not be among them.

Experienced food and nutrition workers have not had the standing or platform to engage in broader political dynamics, or to influence external partners. In order to address challenges limiting the

¹⁹³ The World Bank Group. 2018. Solomon Islands Systematic Country Diagnostic Priorities for Supporting Poverty Reduction and Promoting Shared Prosperity Report No.: 115425-SB.

¹⁹⁴ Baker, P., Hawkes, C., Wingrove, K., Demaio, A.R., Parkhurst, J., Thow, A.M. & Walls, H. 2018. What drives political commitment for nutrition? A review and framework synthesis to inform the United Nations Decade of Action on Nutrition. *BMJ Global Health*, 3(1), e000485. doi: 10.1136/bmjgh-2017-000485

¹⁹⁵ Balarajan, Y. & Reich, M.R. 2016. Political economy challenges in nutrition. Globalization and health, 12(1), p.70.

operationalisation of multisectoral policies that addresses food systems and food environments, nutrition and food security issues may need to be elevated and positioned within a coordinating agency (e.g. MOFT, the PMO or the MDPAC), with capacity to manage multistakeholder engagement and high-level advocacy.

There is a major gap between the policy ambitions and the availability of resources to fund them. The absence of any substantial funding has over many years limited or halted implementation. Budget allocations determined in the policy frameworks are significant. Policy leaders may need to consider governance and implementation implications and options should those funds (including meeting sitting fees) not be made available.

Allocation of government and development partner funding is for the most part aligned to sector strategic plans. The absence of food and nutrition actions from the strategies and polices of most sectors (including by health) will hamper any designation of resources towards it. Without adequate budget or technical skills, most sectors and stakeholders may not be prepared to absorb such activities.

12. Recommendations: navigating barriers and establishing priorities

This in-depth analysis suggests that improving dietary quality should be a key priority for the Solomon Islands Government. This process overwhelmingly highlighted the need to reorient food supply chains and food environments by adopting nutrition-sensitive policy initiatives that facilitate increased production and efficient value chains, and improve the appeal of locally produced foods. This would align well with the country's goals to foster import substitution, achieve food sovereignty, and protect traditional healthy foods. According to the World Bank Country Diagnostic, ¹⁹⁶ a resilient and thriving agriculture and fisheries sector could help to mitigate pressures created by population growth and climate risks, and ease rapid urbanisation related to the lack of economic opportunity in rural areas. Applying an equity lens would include a prioritisation of approaches that genuinely engage and empower women and youth across the agriculture and fisheries sectors.

Operationalising goals to strengthen food supply chains and improve food environments will require significant efforts across many stakeholders. Key recommendations for advancing this agenda include fostering multisectoral engagement and accountability, scaling up implementation, monitoring and performance review, and establishing early policy priorities.

Foster multisectoral engagement and accountability for food and nutrition security commitments

- <u>Identify and support a policy entrepreneur</u> (nutrition champion)¹⁹⁷ with the power and influence to call stakeholders to action, mobilise required resources, and facilitate the pass-through of accountability by leaders in all responsible agencies. Support the policy entrepreneur to introduce the policies to cabinet and see to their endorsement.
- Facilitate the establishment of governance mechanisms that create genuine and sustained engagement of both policy leaders and operational staff across all sectors and stakeholders. For the Solomon Islands, this may include a high-level council or steering committee. There may be a need for consolidation of different governance groups engaged in overseeing nutrition food-related policy frameworks to reduce coordination complexity and inefficiency.
- Seek opportunities to build policy coherence for food and nutrition so the operational and resource commitments of all stakeholders are reflected in their respective plans and strategies, and that those commitments are included as measures of sectoral performance. Governance arrangements should tightly monitor progress and contributions towards the policy frameworks, with a clear transfer of accountability for implementation. Upcoming sectoral policy review and redesign cycles (agriculture and health both occurring in 2020) should be capitalised on as a platform to raise the priority of nutrition by specifying commitments that will be implemented.
- Ensure that clear actions for food and nutrition security are reflected in all national policy priority documents and development policy frameworks, demarcating the responsibilities of different sectors towards it.

Scale up implementation of existing policy frameworks

¹⁹⁶ The World Bank Group. 2018. Solomon Islands Systematic Country Diagnostic Priorities for Supporting Poverty Reduction and Promoting Shared Prosperity Report No.: 115425-SB.

¹⁹⁷ Balarajan, Y. & Reich, M.R. 2016. Political economy challenges in nutrition. Globalization and health, 12(1), p.70.

- <u>Establish a cross-sectoral Implementation Coordination Unit within agriculture</u> that brings together a capable team of representatives from the existing workforce across sectors (e.g. extension officers, nutrition officers and health promotion officers working nationally and subnationally). Appoint to that unit an experienced manager who can coordinate and provide appropriate supervision, support and performance-related accountability.
- <u>Examine existing and desirable skills mixes and capacities</u>, including skills in management, policy development, programme management, advocacy and gender sensitivity.
- <u>Engage in upcoming human resources reviews in health and agriculture</u> (and other sectors, where possible) and seek opportunities to introduce food and nutrition graduates from Fiji and graduates from the Bachelors Degree in Nutrition and Dietetics at SINU into the workforce.
- Develop a clear understanding of the status of financial resources available for implementation across all relevant ministries. Call on leading sectors to demonstrate how they will fund their commitments.
- In the likelihood of a shortfall, the governance group should determine innovative ways to maximise financial resources for food and nutrition activities. For instance, there is opportunity for policy champions, leaders and partners to advocate collectively to development partners that food and nutrition security becomes a multisectoral priority in their investment. There are also opportunities to advocate that MOFT and MHMS direct funds generated through health taxes (tobacco, rice and SSBs) towards specific food and nutrition initiatives, for instance infrastructure to provide clean drinking water in all public schools and fund publicly procured lunches for all students.
- Improved policy coherence will spur greater efficiencies with regards to implementation and financial resources, by mainstreaming nutrition actions into the existing functions and actions of all stakeholders.

Collect and share data on problems, progress, achievements and outcomes

- Use data on food insecurity and nutritional challenges to assess impact. Compiling and using information, and monitoring and evaluating, are both essential functions. Gaining visibility on successful approaches that should be replicated, and identifying bottlenecks that must be addressed or negotiated, can help guide resource allocation and planning. Data should be translated and disseminated in a way that provides health, agriculture and education officers with insight into effecting change.
- Encourage officers working with farmers and vulnerable groups in both urban and rural settings to collect, collate and share information that can inform planning.
- <u>Disaggregate measures of food and nutrition insecurity</u> by age, sex, and other vulnerability factors, and establish indicators on the food supply chain (food production, processing and distribution) and food environment (prices, products, sales and marketing).
- Work with external research partners to address key knowledge gaps around the food system and food environment, with a requirement to build local research capacity. Research approaches should include those that are operational in nature, research and development related to food production and processing, and research that translates data into knowledge about the situation. Research areas that would be useful at this stage include:
 - The development of a baseline monitoring report for nutrition and food security situation against selected objectives.

- Opportunities for supply chains to become more nutrition-sensitive, and an understanding of the drivers for achieving it.
- Analysis of the ways in which the food environment influences consumer choices.
- The extent to which gender disparities and water and sanitation standards contribute to nutritional deficiencies, or could contribute to reducing them.
- Operational research that draws lessons on effective and sustainable implementation of food and nutrition actions at all levels.
- Social research on the way people interact with food in rural areas, and how this is undermined by their social determinants.
- Opportunities for realistic fruit and vegetable processing and distribution schemes based on experience in other countries.

Undertake a process of prioritisation against existing policy frameworks

The policies being adopted in the Solomon Islands represent an ambitious and comprehensive agenda of policy and service delivery interventions, requiring contributions by many different government, development partner, academic, private sector and civil society stakeholders.

There are priority-setting tools that can facilitate decisions around policy priorities, incorporating factors such as cost-benefit, implementation feasibility and capacity, ^{198,199} sector mandates and relationships, likelihood for success, political will and interest, alignment across plans and urgency. Actions that address the triple-burden of malnutrition while serving other sectors in their contribution to the SDGs (triple-duty)²⁰⁰ should be central to priority setting.

An example of such a priority would be adopting a more comprehensive approach for creating and maintaining healthy and sustainable food systems in education institutions. The school food system offers enormous potential to integrate the structural, environmental and behavioral changes needed to create a stronger food system and promote food security. The Solomon Islands has in place a multisectoral School Health Promotion Committee, and has a track record for collaboration among partners engaged in it. Most of the stakeholders associated with food and nutrition security, through their plans, have made commitments to support efforts to improve the school food environment. There is a wealth of research available to guide the selection and trialing of school food system approaches.

A comprehensive approach to the school food systems has the potential benefit of shortening food value-chains, reducing food waste, and contributing to research and development on approaches that promote traditional foods and protect biodiversity. A successful collaboration resulting in well-functioning school systems could exemplify the type of partnerships called for in food and nutrition security policy frameworks, buoying staff and leaders to increase action in other areas.

¹⁹⁸ World Health Organization. 2018. The updated Appendix 3 of the WHO Global NCD Action Plan 2013-2020. Geneva: World Health Organization.

¹⁹⁹ Goddard, M., Hauck, K., Preker, A. & Smith, P.C. 2006. Priority setting in health—a political economy perspective. *Health Economics, Policy and Law*, 1(1), pp.79–90.

²⁰⁰ Development Initiatives. 2017. Global Nutrition Report 2017: Nourishing the SDGs. Bristol, UK: Development Initiatives.