



Snapshots of Food and Nutrition Security in the Pacific Region



*Prepared for the IFPRI 2020 Vision Initiative Policy Consultation Conference on
“Building Resilience to Food and Nutrition Security”
Addis Ababa
15 – 17 May, 2014*

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4/20/2014

1. Background

The Pacific region comprise of 14 Pacific Island developing countries and 5 territories (PICTs). The PICTs vary widely, but generally characterized by their small physical size and geographical remoteness, weak economies, fragile biodiversity, and limited natural resource base. The countries are grouped into three groups, the Melanesian Countries (Papua New Guinea, Solomon Islands, Vanuatu & Fiji); the Polynesian Countries (Tonga, Samoa, Cook Islands, Tuvalu & Niue); and the Micronesian Countries (FSM, Kiribati, Marshall Islands, Nauru & Palau).

The Melanesian countries have bulk of the landmass, higher population and rich resources with their economies depend mostly on agriculture. Two of the Polynesian (Tonga and Samoa) and Micronesian (FSM and Palau) countries have sufficient land mass for food production while the rest of the countries and territories are either with limited land resources or low lying atoll islands which are often with poor soil and harsh environment for agricultural development. The Pacific's population has recently topped 10 million and is estimated to double in 2050¹ and provides the context for the agriculture and food security sector.

Figure 1: Map of the Pacific Region²



Food Security issues in the Pacific, such as declining agricultural production and productivity, diet change and dependency on food imports, increasing urbanisation, youth unemployment, poverty, malnutrition and environmental degradation, has been recognised and prioritised at the highest Political level. This is evident with the adoption of a “Food Secure Pacific: A Framework for Action on Food Security in the Pacific” (FSPF), in 2010 at the first Pacific Food Summit held in Port Vila, Vanuatu. The FSPF is a policy guide on food security for the region and describes a multi-sectoral and coordinated approach at regional and national levels in addressing food security. With the adoption of the FSPF, the Pacific Leaders had committed their governments for immediate action on food security and further requested regional and international development partners to assist in addressing the growing food insecurity in the region.

¹ Commonwealth of Australia (Department of Climate Change and Energy Efficiency) 2011; SPC Policy Brief 1/2008

² SPC: <http://www.spc.int/en/about-spc/members.html>

2. Food Security Issues in the Pacific

2.1 Population Growth, Migration and Urbanisation

On average, the population of the Pacific is growing at about 2% per annum and is expected to double in 2050 implying major challenge for the agricultural sector to produce sufficient quantity of food for the growing population¹. The high growth rates are predominantly driven by Melanesia while population growth in Micronesia and Polynesia is lower due to high emigration rates. Urbanisation is increasing in nearly all countries. Emigration and urbanisation is causing several food security issues including, huge burden on the labour needs for agricultural production, increasing dependence on imported food especially for urban population, increasing poverty rates due to large unemployment rates among urban youths, and breaking down of cultural norms which forms traditional food security coping mechanisms especially social safety nets in most PICs.

2.2 Declining Food Production

The agriculture production in the region is fluctuating rather than increasing. A review of available data on food production patterns in several Pacific Island Countries (PIC's) reveals three major trends.² First, growth in agricultural production generally declined until the mid-1990s, stagnating or slightly rising in most countries from then on. Second, agricultural productivity has in general stagnated for the last 45 years, and third, per capita agricultural production is declining in all countries, even in countries with little population growth. This decline in agricultural production is due to factors such as declining soil fertility, increasing incidences of pests and diseases, poor farming practices, limited arable lands, soil salinity in atoll islands, poor quality of water, natural disasters and erosion of genetic resources, both crops and animals³. Furthermore, lack of clarity in land tenure and lease of customary lands is further affecting food production.

The region's vast coastal and marine resources are fundamental to the diets, cultures and livelihood systems of the Pacific islands. Most fish consumed by rural people comes from subsistence fishing and per capita consumption in rural areas often exceeds 50 kilograms of fish per year thus, to provide the recommended amount for the growing population growth, access to another 115,000 tonnes of fish must be provided across the Pacific⁴. The gap between the coastal fish available and the amount of fish required for food security will be even greater if coastal stocks are not managed well. However, according to SPC (2008), even well managed coastal fisheries do not have the capacity to provide the extra fish required for future food security.

2.3 Increasing Reliance on Imported Food

Traditionally, Pacific diets are based on starchy root crops supplemented by coconuts, fish and sometimes livestock products. However, with the declining food production associated with growing urbanisation and economic transformation, food consumption trends show increasing daily intake of calories, with imported food, especially rice and wheat flour, overtaking local foods in the diets of Pacific islanders. Imports of cheap (e.g. rice, wheat), low quality (e.g. lamb flaps, turkey tails) and convenience (e.g. ready-to-eat) foods now compete with domestic foods (e.g. root crops) that often have higher production costs and are less convenient to store and prepare⁵. Food security analysis by SPC in selected communities of 7 PICs (Solomon Islands, Vanuatu, Fiji, Samoa, Tonga, Kiribati, Republic of Marshall Islands) revealed that dependency on food imports for these communities ranges from 27% in Vanuatu to 91% in Marshall Islands⁶.

2.4 Nutrition and Lifestyle Diseases

The reliance on food imports together with sedentary lifestyles is found to be directly linked to the epidemic of non-communicable diseases (NCDs) in the Pacific. HIES data for PICTs indicated that high

¹ Commonwealth of Australia (Department of Climate Change and Energy Efficiency) 2011

² ADB, 2011

³ SPC Food Security Policy Brief, 1/2014

⁴ SPC Fish and Food Security Policy brief, 1/2008

⁵ SPC Food Security Policy Brief, 1/2014

⁶ SPC Vulnerability Assessment Reports, 2012-2013

calorie intake from imported energy dense and high sugar foods now dominate household's food expenditures for countries with highest NCD rates¹. As a result, the PICTs have some of the highest prevalence of obesity and type 2 diabetes in the world. Based on WHO STEPS surveys, overweight and obesity prevalence ranges from 47 – 93% in PNG and Nauru, respectively². In addition, WHO indicated that 75% or three out of four die of NCDs³. Under-nutrition is prevalent in some of the countries especially in the Melanesia.

Also, the prevalence of anaemia is reported to be 20% or greater, in both children and pregnant women, in 15 of 16 countries⁴. In addition, vitamin A deficiency in at least 4 countries (Kiribati, Marshall Islands, Federated States of Micronesia and PNG) is among the highest in the world³.

2.5 Food Safety Issues

Limited capacity of the Pacific Islands to meet or comply with international food safety and quality standards is limiting market access of local produce and thus agricultural production.

2.6 Poverty

The increasing urbanisation with burgeoning youth unemployment is associated with poverty in Pacific countries for which data are available. The proportion of poor has risen since the early 1990s, implying increasing hunger or undernutrition prevalent in the region. Conditions could worsen if prices of imported foods continue to increase and local production is inadequate.

2.7 Vulnerability to Global Food Prices

The dependence on food imports implies that the Pacific Islands are more exposed to global markets. Imported food items accounted for up to two thirds of total food expenditure on a national basis⁵. In addition, with the PICTs being net fuel imports combined with negative trade balances, poor economic growth, small size of markets and distance from international production centres heightened the Pacific's vulnerability to increases in global food and transport prices.

2.8 Climate Change

Changes in temperature and rainfall systems (about 70% of the Pacific's agricultural area is heavily dependent on seasonal rainfall⁶), alterations to average and peak temperatures, loss of genetic resources and agro-biodiversity, increased salinization, more intense weather-related natural disasters, and changes in disease and pest regimes could all have significant repercussions for agricultural production. Community based vulnerability analysis by SPC in 6 selected countries (Solomon Islands, Vanuatu, Fiji, Samoa, Tonga and Kiribati) has shown that behaviours of some of the traditional crops and animals are changing. Significant pests and disease combined with reduced soil fertility are among the many factors impacting agriculture production in the communities. The same studies showed that adaptive capacities of many of these communities are very low in terms of financial capitals in combination with other capitals especially natural and physical capitals. In addition, increased water temperatures, ocean acidification and wave surge associated with climate change are expected to damage coral reefs and reduce the number of fish they produce. This will increase the food security gap further.

3. Role of the Secretariat of the Pacific Community

The Secretariat of the Pacific Community (SPC) is the Pacific's regional intergovernmental organization whose membership includes the 22 nations and territories in the Pacific Ocean and their metropolitan

¹ SPC PRISM; PICTs HIES

² PICTs WHO STEPS surveys, 2005 - 2010

³ Forum Ministerial Briefing Paper, PIFS(12) FDMM.13, PIFS 2012,

⁴ WHO Global Database on anaemia. WHO, Geneva. <http://www.who.int/vmnis/anaemia/en/>

⁵ PICTs HIES

⁶ FAO. 2008. Climate Change and Food Security in Pacific Island Countries. Rome.

powers (USA, Australia and NZ). SPC with its seven Programme Divisions¹, works in a wide range of sectors, is the principal provider of technical, scientific, research and policy services in areas including agriculture, energy, transport, fisheries, forestry, geoscience, public health, disaster risk management, water resources, education, statistics, gender, human rights, youth and culture. SPC is also charged with meeting the challenge of cross-cutting issues, such as climate change, gender and food security, in all of these sector areas.

3.1 SPC Food Security Programs/Projects

The Land Resources Division of SPC (LRD) is the principal provider for technical support on food security related to agriculture and forestry in the region. This priority focus is highlighted in LRD's Strategic Plan (2013-2017) Goal, "to assist the Pacific Community to improve food, nutritional and income security and sustainable management and development of land, agriculture and forestry resources"². The new LRD Strategic Plan prioritises three development programmes: (1) food and nutritional security programme, (2) sustainable resources management programme, and (3) trade and agribusiness programme. A fourth programme is charged with cross-cutting issues of policy advocacy, information and knowledge management to oversee programme integration across the three development programmes and as well as across the other 6 Divisions of SPC including, other regional organisations.

3.1.1 Food and Nutrition Programme

a. Conservation, Development and Promotion of Genetic Resources

The SPC Centre for Pacific Crops and Trees (CePaCT) based within LRD is the genebank for the Pacific region. The CePaCT plays a key role in ensuring that the countries of the Pacific have access not only to traditional diversity but also to improved crops, which can be crucial in the management of pests and diseases, and in securing food production within a changing climate. CePaCT conserves and have developed a globally unique collection of Pacific crops and trees, conserving a diversity of over 2000 accessions of root crops and forest tree species. CePaCT is distributing these collections to its member countries to help build resilient of food production systems. Some of the donors supporting CePaCT work include NZAID, AusAID, ACIAR, EU, Global Crop Diversity Trust, UNDP, FAO, USAID and the French Pacific Fund.

b. Enhancing Community Food Production Resilience to Impacts of Climate Change

SPC through LRD and the Strategic Engagement, Policy and Planning Facility Divisions (SEPPF) is currently engaged in a number of food security and climate change activities. Through these funding supports, LRD is working with member countries and territories to assess the vulnerability of community food production systems to climate change and evaluation of resilient food production systems. Another key component of this technical service is evaluation of innovative farm management techniques, distribution and evaluation of climate resilient crop varieties (being conserved and developed at CePaCT and through breeding programmes) in order to strengthen capacities of these communities to adapt to impacts of climate change. In addition, cost benefit analysis of these technologies is also being conducted in selected communities. LRD is also collaborating with the SPC SOPAC Division and other development partners on disaster risk management and reduction programmes. Along with the implementation of these food security and climate change projects, LRD is supporting countries with capacity building, training and mainstreaming of climate change and food security into sectoral programmes. These support services is addressing the food availability and stability pillars of food security. The major donors and partners supporting these activities include USAID, AusAid Initiative on Climate Change Adaptation Program, ACIAR, EU-GCCA:PSIS, GIZ and UNDP.

c. Crop and Animal Production and Extension Services

Through its Crop Production and Extension services, LRD continues to provide technical services to PICTs to strengthen their food production capacity through various support services. LRD in collaboration with the Public Health Division of SPC, WHO and FAO is promoting the production, marketing and consumption of

¹ SPC: <http://www.spc.int/>

² SPC LRD Strategic Plan (2013 – 2017)

local nutritious foods (“Go Local”). Other support services include strengthening national agriculture extension, promoting innovative technologies, soil/water management and on farm evaluation trials of resilient crops. LRD is also providing Plant Health support services covering pest diagnostic support, pesticides training, pest and disease surveillance, research on IPM, ICM, and pest list database for the region thus contributing to improving food production of the member countries.

The LRD Animal Health and Production Services continue to support the development of animal health and production capacity in the region and strengthening of animal disease surveillance and emergency response preparedness. In partnership with Agricultural Development in the American Pacific (ADAP) and the University of the South Pacific (USP) in the development of paraveterinary training for the PICTs in order to increase the numbers of trained paraveterinary officers in the region. Support services also include zoonosis disease surveillance/monitoring and apiculture production for income generation. These support services directly and indirectly contribute to all pillars of food security. The major donors and development partners include USAID, NZAid, FAO, ACIAR, Mordoch University, and ADAP.

3.1.2 Sustainable Land, Agriculture and Forest Resource Management

Forests and trees play significant roles in the lives of Pacific Islanders, economically, socially, culturally and environmentally. In many of the PICTs, especially on the smaller islands and atolls, agroforestry and tree crops provide most of the food, medicines, construction materials, firewood, tools and myriad of other products and services that cannot be replaced with imported substitutions. For the larger countries, forests have contributed significantly to their economic development in terms of foreign exchange earnings, employment and infrastructure development. SPC LRD through its Forest and Tree Programme is providing services on sustainable management of agroforestry for food security and forestry for sustainable livelihood programs. LRD is also providing technical support services on development of agriculture, forestry and agriculture landuse plans, policies and legislation. These support services thus, contributes directly to food stability and indirectly to food access pillars of food security. The major donors and partners supporting these activities include, the EU, ACIAR and NZAid.

3.1.3 Strengthen Export and Market Access of Agriculture and Forestry Products

LRD continues to support services to increase contribution from agriculture and forestry sectors to inclusive broad-economic growth through strengthening member countries capacity to meet standards, guidelines and conditions for export and domestic trade. As such, LRD continues to provide support services in the area of biosecurity and trade facilitation, including facilitating the distribution of pathogen-tested improved planting material; pest and disease surveys; management of invasive species, and associated research and development; identifying and testing suitable quarantine treatments for fresh produce; supporting harmonisation of national legislation to comply with the requirements of the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (WTO-SPS); facilitating regional and international trade through market access support; and technical capacity building. Support services also include the expanding work of the Pacific Organic and Ethical Trade Community (POETCom) to support organic agriculture in the Pacific. These support services are addressing the food availability and access pillars of food security. Support from donors and partners include EU, ACIAR, AusAID, UNDP, IFAD, FAO, NZAID, French Pacific Fund and USAID.

3.1.4 Support Services on Policy Advice and Advocacy and Information and Knowledge Management

SPC is providing support services to its member countries on informed policy, advocacy and knowledge sharing on sustainable land, agriculture and forestry development. Support services include policy deepening, development of policy briefs and timely provisioning of information on food security, agriculture, forestry through active networks. Also, in collaboration with the SPC Statistics Division, LRD is also providing support services on improving statistics for food security, agriculture and forestry production for the PICTs. These support services thus addresses all of the pillars of food security. The European Union maintains a strong support to LRD through three projects currently contributing to these support services.

Challenges and Funding Gap for Food Security in the Pacific

Food security will remain an ongoing important objective for the region. However, there is a need for better coordination and alignment of technical assistance through regional organisation in order to supplement the absorptive capacity constraints of PICTs. SPC plays a crucial role in providing integrated package of services however, majority of the support services of SPC (approximately 80% of LRD Operational Budget) depend on project funds and most of the projects highlighted above are ending in 2015/2016. As such, external financial assistance is continuously sought to support new and ongoing food and nutrition security projects for the Pacific Region.

Further Reading

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