

The agriculture–nutrition nexus in Samoa



In a nutshell

- Agriculture contributes less than 10% to Samoa's gross domestic product; subsistence farming and fishing dominate
- Undernutrition, micronutrient deficiency (mainly iron) and obesity co-exist
- 56% of household food expenditure of the very poor is on imported foods
- 35% of Samoans eat almost no fruit or leafy green vegetables and the consumption of other vegetables and fish has declined; instead they eat low-cost, low-quality food
- Up-to-date data to track agriculture and nutrition performance are lacking.

Key recommendations

- Adopt a more integrated and culturally inclusive approach to improving agriculture and nutrition
- Build consensus on key agriculture and nutrition performance indicators to improve tracking
- Increase local production of and access to affordable, nutritionally dense foods
- Build on lessons learned from past and ongoing agriculture–nutrition programmes.

Agriculture, fisheries and tourism drive the small, open economy of Samoa, a small island nation in the south-west Pacific Ocean with a population of less than 200,000. The agricultural sector accounts for around one-tenth of gross domestic product (GDP), half of what it was in the 1990s. Remittances account for around one-fifth.

The decline in sustainable agricultural production and inshore fisheries has been accompanied by a rise in food imports and a reduction in the consumption of local fruit, leafy green vegetables and fish. Levels of obesity and non-communicable diseases (NCDs), such as diabetes, have increased. In the past, family farming and fishing provided enough nutritious food. Imported foods now account for over half (56%) of household food expenditure, which increases vulnerability to fluctuating international food and fuel prices.

The policy and institutional framework for agriculture and nutrition exists in Samoa. Government ministries, other public entities including the National University of Samoa, international technical agencies such as the United Nations Food and Agriculture Organization (FAO), donors and non-governmental organisations have

implemented several agriculture and nutrition programmes at national and community levels for improving food and nutrition outcomes, with varying levels of funding and degrees of success. Much more can be done.

Agriculture

During the 1990s, agriculture and fisheries contributed approximately 20% to gross domestic product, but by 2012 their contribution to GDP had declined to 9.7% (4.5% from agriculture and 5.2% from fisheries). More than two-thirds of households are engaged in subsistence agriculture and fishing. Between 1999 and 2009, the proportion of households engaged in fishing declined from 33% to 25%; the number of

chickens, pigs and goats, traditionally raised for domestic consumption, dropped by 29% and the number of cattle rose by 50%. In 2011, root crop production dominated the food crop sector; relatively small quantities of vegetables and fruit were being grown. Fewer than 10% of women are involved in subsistence agriculture (3%), commercial agriculture (6%) or fisheries (1%). About 9% of rural households receive more than three-quarters of their income from the sale of agricultural commodities.

Food

Across Samoa, the biggest household expense is food (37%). More than half (56%) of this is spent on imported foods, which are affordable and convenient but high in salt and sugar. Samoans, especially those living in urban areas, eat few vegetables and fruit; a third (35%) eat virtually no fruit. Samoans know little about the nutritional value of local foods and prefer foods that are easy to prepare.

“subsistence farming and fishing predominate but are in decline”



“low consumption of fruit and vegetables and preference for cheap, convenient, consistently available, nutritionally poor, imported foods”

Samoa is naturally rich in healthy, nutritious foods but these often cost more to produce and are less convenient to store and prepare than imported foods. Growing reliance on food imports makes Samoans vulnerable to international food and fuel price fluctuations. When the prices of imported foods rise, the poorest households suffer.

Nutrition

Undernutrition, micronutrient deficiency and obesity are problems in Samoa. The rising number of people in the poorest households who do not receive adequate nutrition is a cause for concern. The percentage of underweight people and the severity of malnutrition are not being accurately reported. Further analysis of existing data is

needed to determine if a correlation exists between immigration and undernutrition. There is an information gap about the diets of children aged 3–15 years.

The growing proportion of obese people in Samoa, now among the highest in the world, has been linked to changes in diet and reduced physical activity. One in three adults aged 25–64 years is predicted to develop an NCD during their lifetime. The prevalence of diabetes (23%) and hypertension (21%) is high, and the risk of cardiovascular disease has reached epidemic proportions.

The policy and institutional framework

The overarching agriculture and nutrition policy document is the Food and Nutrition Policy (FNP) 2013–18. The FNP identifies three programme areas, 19 goals, 75 strategies and 86 indicators relating to food access, affordability and safety. Policies for reducing malnutrition include food fortification, micro-nutrient supplementation, health education, promoting healthy eating, improving the diets of infants and young children, and the School Nutrition Programme. The Samoa FNP is aligned with the conceptual model for food security in the Pacific (Figure 1), which describes the factors influencing food choices by individuals.

The Government of Samoa uses sector committees to promote communication and coordination between sectors (Figure 2), with the Ministry of Finance playing a lead coordinating role by channelling funds. The Nutrition Unit of the Ministry of Health is responsible for the implementation of the FNP. The Ministry of Agriculture and Fisheries (MAF) provides assistance to farmers based on agro-ecological maps showing favourable environments for specific crops, irrigation or polytunnels, as well as areas not suitable for the use of agricultural machinery. MAF also implements the Samoa Agriculture Competitiveness Export Programme, which has a focus on producing locally grown fruit and vegetables to replace imports. The Ministry of Women, Community and Social Development (WMCD) runs the community vegetable gardens for women and young

Nutrition in Samoa

Micronutrient deficiency

- 61% of children under 2 years of age and 44% of pregnant women are anaemic

Stunting

- 5% of children under 5 years of age are moderately or severely stunted

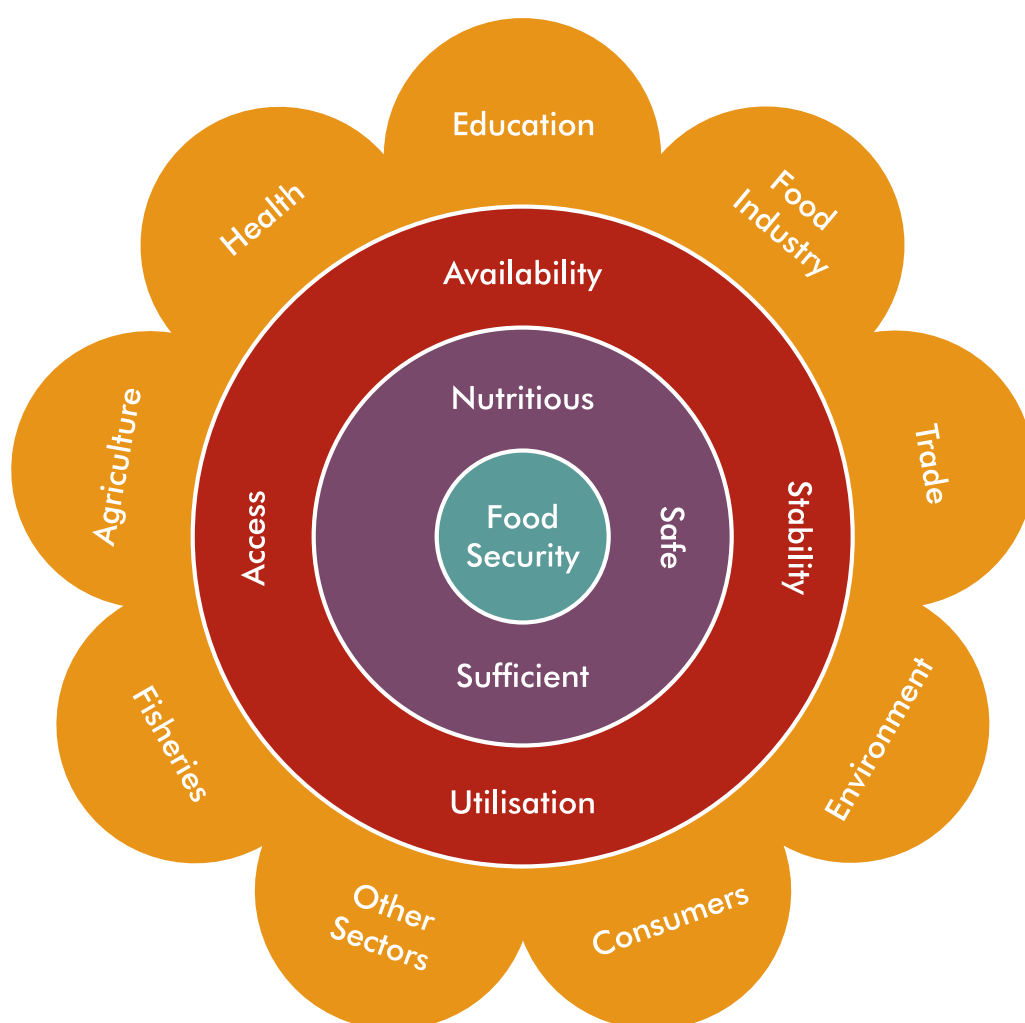
Wasting

- 4% of children under 5 years of age are moderately or severely wasted

Obesity

- Between 1978 and 2007 obesity rose from 26% to 68%
- 16% of boys and 22% of girls aged 13–15 years are obese
- In 2014, 85% of the population aged between 18 and 64 years was obese (mean body mass index greater than 30.0 kg/m²).

Figure 1. Conceptual model of food security in the Pacific.



Source: Food Secure Pacific Working Group (2010)

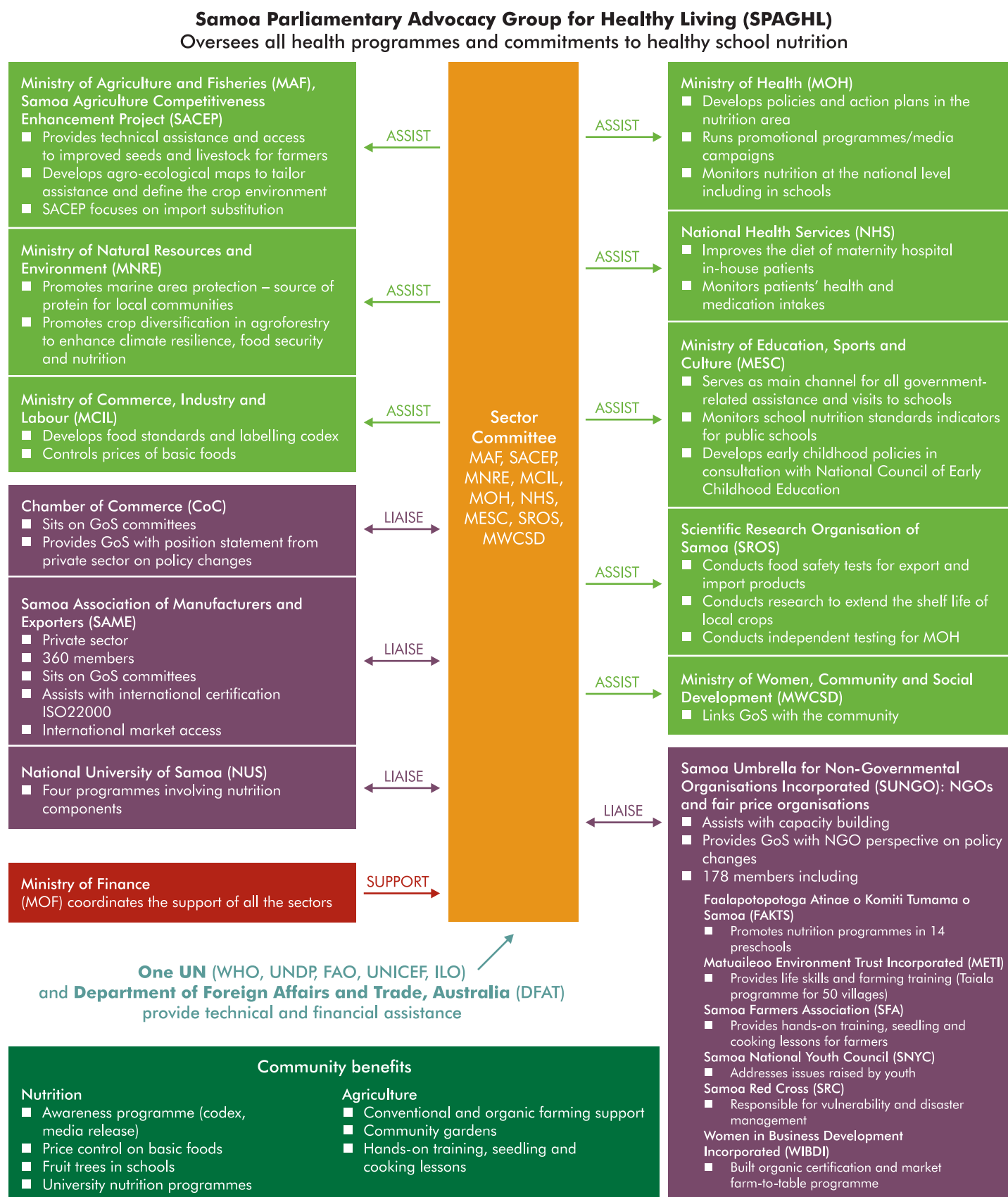
people. The Ministry of Commerce, Industry and Labour creates commercial opportunities for the private sector, and addresses the Codex Alimentarius food standards and labelling. Manufacturers are required to provide information on fat, sugar and salt on labels. The Ministry of Natural Resources and Environment establishes marine protected areas and agroforestry to lessen risks from climate change, pests and diseases.

Non-governmental organisations involved in agriculture- and nutrition-related activities include Faalapotopotoga Atinae o Komiti Tumama o Samoa (FAKTS), the Samoa Farmers Association (SFA), Women in Business Development Incorporated (WIBDI), the Matuaileoo Environment Trust Incorporated, the Samoa Red Cross and the

Samoa National Youth Council. Programmes range from promoting nutrition in schools and preschools to community gardens, educating farmers about non-traditional fruit and vegetables, and setting up cooperatives. There are also programmes to help farmers to gain fair trade and organic certification and to build supply chains to the local hospitality industry. FAKTS, the largest and longest-serving grassroots women's organisation, works with communities and in preschools. SFA oversees a capacity development and planting programme providing hands-on training for the production and preparation of unfamiliar vegetables. WIBDI manages a Farm-to-Table programme with the support of the United Nations Development Programme (UNDP) to develop community gardens for supplying organic produce to 19 restaurants and hotels.

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Figure 2. Overview of organisations working on agriculture, food and nutrition in Samoa.



Source: NUS (2016)

Other agencies include the Chamber of Commerce, which has 360 members and partners with the FAO to promote demand-driven agribusiness.

Influencing what Samoan households grow and eat is complex. Successful initiatives, for example the Talomua and the Go Local programmes, build on existing knowledge, beliefs, habits, obligations and practices. Go Local was developed and used by the Island Food Community of Pohnpei. Their community meetings, school activities, agricultural workshops, cooking classes, competitions, poster campaigns and advertising have lifted consumption of giant swamp taro (475%), local vegetables (130%) and bananas (53%).

Talomua builds on existing knowledge, beliefs, habits, obligations and practices

Subsistence food underpins social cohesion in Samoa. The Talomua programme encourages villages to make better use of their agricultural resources. Village authorities take the lead in planting and harvesting traditional crops to meet community needs and to generate sufficient surplus to supply agro-processing industries for import substitution and export. The scheme builds on the tradition of village chiefs setting planting targets, and requiring men from each family to plant crops in order to make sure villages would always have sufficient food.

A plot of around 10 m² can produce 1–2 kg of young leaves of local leafy green vegetables every seven days, providing enough weekly pro-vitamin A for a family of six.

Other initiatives encourage people to consume healthy, locally grown foods prepared in new ways. The National Nutrition Programme will deploy district nurses to work on nutrition issues in communities.

Strengthening the agriculture–nutrition nexus

Samoa has to address the burden of malnutrition (undernutrition, micronutrient deficiency and obesity), high food imports, declining agricultural productivity, poverty and underemployment. It also has to address the lack of up-to-date data on agriculture and nutrition for more informed decision-making.

CTA and partners can build on the existing policy and institutional framework and ongoing initiatives that integrate existing knowledge, cultural beliefs and practices to strengthen the agriculture–nutrition nexus for improving food and nutrition outcomes in Samoa. The opportunities for intervention include:

- Building coherence for addressing nutrition challenges through agricultural programmes and achieving consensus on key indicators to track progress in nutrition and agricultural performance
- Building on ongoing programmes such as the FAKTS preschool programme which has representation in all Samoan villages, the WIBDI Farm-to-Table programme which supplies organic fruit and vegetable baskets to restaurants and hotels, and the SFA capacity-building programme for farmers. This can be done in collaboration with the Samoa Association of Manufacturers and Exporters, the Chamber of Commerce and the National University of Samoa to link production, technology adoption, marketing/commercialisation and consumption
- Supporting agriculture–nutrition awareness programmes to increase consumption of locally produced, affordable nutritious foods (staples, vegetables, fruit, livestock and fish), to reduce childhood undernutrition, micronutrient deficiency (specifically anaemia), obesity and NCDs.



Further reading

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