



Stories of hope from the Pacific

How better food security
is making island life healthier



Improving life in the Pacific

Better agriculture and fishing



Solomon Islands: Locally grown foods like taro boost nutrition for many island people. (FAO/Heiko Bammann)

Pacific Island Countries face numerous obstacles to development, including size, remoteness and geographic dispersion. Most island people live in rural areas, depending on agriculture, fisheries and forestry for the food they eat and for their livelihoods.

Island food security is fragile. Natural disasters such as cyclones, flooding, drought, earthquakes, tsunamis and climate change are ever-present threats.

But, today, many Pacific islanders can live healthy lives, thanks to a seven-year food security initiative by



Samoa: Vili Fuavao, FAO Subregional Representative for the Pacific Islands. (FAO/Holland Tofinga)

14 island countries supported by Italy, FAO and a broad alliance of development partners. Following a positive independent assessment, the effort is about to be expanded and extended as the *Food Security and Sustainable Livelihood Programme in the Pacific Island Countries (FSSLP)*.

"The over-arching goal of the *Regional Programme for Food Security in the Pacific* is to help island people grow healthier by eating more nutritious local foods, while reducing the amount of processed imported food they eat," says Vili Fuavao, FAO Subregional Representative for the Pacific Islands.

Fuavao added: "This unique and ambitious effort approached food security on two tracks: A national initiative and a regional one. At its heart, the national initiative was directly concerned with improving the food output of farmers and fishers, while the regional track focused on developing new trade relations among the islands."

FAO says food security exists "when all people, at all times, have access to

sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

The 1996 World Food Summit recognized the importance of food security when it set the goal of cutting the number of hungry people in the world by half by the year 2015. Keeping this goal in mind, 14 Pacific Island Countries worked with FAO, using initial funding from Italy of US\$4.5 million to establish 26 national food security projects in their countries.

The projects helped farmers boost food production and incomes, which led to better nutrition as the variety and availability of local food increased while incomes grew. More than 43 500 people were trained in livestock improvement, crop intensification, food processing and adding value to local food products through modern packaging.



Samoa: Natural disasters are a constant threat to food security. (FAO/John Riddle)

FAO and its development partners are looking to the future these days as they prepare to launch the follow-on initiative that will foster growing hope among island people, with greater livelihood opportunities and better nutrition as a wider variety of local food products are made available at more reasonable prices. 🍷

Nutrition at the core of food security

Safe and healthy local food



Kiribati: Kabuati Teuriaria and Merean Teunnang enjoy locally grown pandanus fruit. (FAO/Tianeti I Beenna)

"The food security programme in the Pacific made some important interventions to address these issues all along the food chain, from farm to fork," says Schulz. "Efforts to enhance production and productivity across a range of commodities were aimed at increasing the local food supply. At the same time, capacity to handle post harvest crops was upgraded to reduce the amount of food lost to spoilage before it could be marketed. Food handling and market linkages were strengthened in innovative ways that added value and convenience to locally grown foods, while ensuring high standards of food safety and quality."

The eating habits and food customs of Pacific islanders have remained much the same for thousands of years, partly because of their remoteness. Traditional diets consisted largely of fresh fish, root crops, and local fruits and vegetables.

This changed dramatically in the second half of the twentieth century as island diets shifted to rice, flour, instant noodles, canned foods, fatty low grade meats like mutton flaps and turkey tails, washed down with carbonated soft drinks high in sugar. Such foods are becoming a mainstay of many Pacific island diets.

According to FAO Food and Nutrition Officer Dirk Schulz, "It is common for people to sell locally grown produce such as root crops and freshly caught fish in order to buy processed imported foods like tinned fish, corned beef and polished white rice to feed their families".

At the same time, a more sedentary lifestyle among islanders has led to some of the highest obesity rates in the world. This places a heavy burden on Pacific island economies, particularly on their healthcare systems.

"The lives of far too many people are being cut short by heart disease, diabetes, stroke and cancer," explains Schulz. "Very often the main income earner of the household is afflicted at the peak of a professional career, which can seriously impact the livelihood of the entire family."

Local food can be costly

Healthy locally produced foods are generally more expensive and more difficult to store and prepare. Root crops and fish are increasingly being exported to lucrative overseas markets. This reduces the local supply and causes prices to rise, limiting the ability of poor people to purchase local staple foods for the family.



Vanuatu: FAO nutrition officer Dirk Schulz shows off locally produced cassava flour. (FAO/Siliana Luatua)

"For instance, cassava farmers in Vanuatu were assisted to produce dried cassava chips, which are then milled into flour. This enabled farmers to reduce the losses associated with the sale of fresh cassava root, while increasing shelf life and product value," according to Schulz.

"In view of recent high food prices and the global economic situation, the need to strive for a food secure Pacific has become even more important," warns Schulz. 🌿

Country projects offer hope

From fruit to sheep, increasing local food options



Marshall Islands: Dwarf coconut seedlings will expand island food supply. (FAO Photo)

The 26 food security projects developed by FAO and its partners were designed to increase better access to healthy foods and to raise island living standards while providing the skills needed for international trade. Most of the projects have now become self-sustaining and continue to improve the lives of those involved.

In Fiji and Papua New Guinea, rice-growing projects supplied enhanced rice varieties to seed centres and trained farmers in rice cultivation. According to Sakiusa Tubuna, National Project Coordinator for Fiji, "So far we have noticed the improved yield of rice from 2.5 tonnes per hectare to almost 7 tonnes per hectare. So, we think the project has contributed significantly to the food security of our people."

Home garden development in the Marshall Islands, Kiribati, Nauru and

Tuvalu encouraged and supported household food production by creating community gardens. Fred Muller, National Project Coordinator for the Marshall Islands, explained: "Some of our problems include a lot of food imports coming in and we would like to increase the local food production base and not rely so heavily on imports."

Farmers discover unexpected benefits

Chicken permaculture projects in Niue and Samoa encouraged low input systems that made it possible for small farmers to manage and increase their food security. Taufakavalu Tukiuha, a small farmer in Niue, said, "I think I'm so happy because the project is of great benefit to me and my family at the household level and also we export the manure that we get from the chickens to Singapore and Manila."

Fruit tree projects in the Cook Islands and Papua New Guinea introduced superior materials and methods to boost fruit production. "The whole idea behind introducing these fruit trees such as rambutan, abiu, mangosteen, durian and so forth, is to increase the variety of fruits that are available in the Cook Islands," says William Wigmore, who served as the National Project Coordinator for the fruit tree project in the Cook Islands.

A banana rehabilitation project in the Federated States of Micronesia established an acclimatization unit in Chuuk to provide hands-on experience for agriculture staff and farmers, so disease free banana plantlets can be raised to the transplanting stage.

Tonga's honeybee project is looking for ways to restore the sector so it can support the horticulture industry. "The honeybee development project was designed to assist the squash and tomato industry in Tonga and we see the honeybee as an increasing pollinating agent for squash and watermelon and even fruits and flowers. And, at the same time, we look at the opportunities for honey as a by-product to become an income generating opportunity for some farmers," says Viliami Fakara, the National Coordinator in Tonga.

The beekeeping project made Netane Tonga a successful young farmer. Thanks to the project, he received tools, equipment and training to become a honeybee farmer. His honey found such a receptive market among the cruise ship visitors to Vava'u that he will soon expand his

apiary because he can no longer meet the growing demand for his honey.

In Samoa and Tonga, sheep projects helped broaden the variety of food available on the islands by helping people start their own sheep farms so



Fiji: Farmer sees the benefits of sturdier rice strains. (FAO Photo)

they don't have to rely on overseas imports.

Value adding projects in Palau, Samoa, Solomon Islands and Vanuatu trained people in food processing, food safety and marketing.

A butcheries project in Vanuatu built rural butcheries to help small farmers take advantage of market opportunities and upgraded management standards and food safety practices. "Already it's showing some impact and we are looking forward to it being even more helpful in the future," says Frazer Bule, National Project Coordinator in Vanuatu.

As the food security programme ends, many of its projects have nudged



Samoa: A poultry project means more food for islanders. (FAO Photo)

food production towards self-sufficiency. This, in effect, will lessen the dependence of the islands on food imports, saving limited foreign exchange reserves for other sectors of their economies. 🐛

South-South Cooperation

Sharing know-how

South-South Cooperation strengthens synergies among developing countries in the field of agriculture. Started in 1996, it brings together countries that request know-how with countries that can provide it. Under country-to-country agreements, technicians and experts from emerging developing countries work directly with farmers in host countries, sharing their knowledge and skills.

In order to help the farmers who took part in the 26 food security projects in the Pacific, China and the Philippines provided experts and technicians with funding of US\$2.8 million from FAO's Regular Programme budget.

Field technicians

Four South-South experts were posted in Samoa and four in Papua New Guinea to direct the work of 56 technicians. The 28 technicians from China were posted to the Cook Islands, Niue, Federated States of Micronesia, Fiji, Samoa, Tonga and Vanuatu. The 28 technicians from the Philippines were posted to Kiribati, Nauru, Palau, Papua New Guinea, Marshall Islands, Solomon Islands and Tuvalu.

Fang Xu, team leader of the Chinese group, explained his satisfaction with the work this way: "All the projects help the local people improve their own food security. We achieved a lot. We have been very successful thanks to the help of the local governments and their staff."



Kiribati: Sharing technical know-how (FAO Photo)

According to an independent evaluation of the food security programme, South-South Cooperation in the Pacific proved "to be an innovative, efficient, cost effective tool to boost income-generating activities at the country level." 🐛

Trade promises better jobs and stronger economies

When opportunity knocks



Samoa: As a rowing team practices, ships off-load more food imports in Apia.
(FAO/Heiko Bammann)

The food security programme takes a twin-track approach to reducing food problems: The national track and the regional track. The regional track focuses largely on building trade opportunities for island countries. In trade, poor food quality and safety reduce access to export markets for most of the Pacific islands. These problems are made worse by national food and trade laws that are weak and out of date.

When it comes to trade in agriculture, fisheries and forestry, the Pacific Island Countries fall into three distinct groups:

Atolls like the Federated States of Micronesia, Kiribati, Nauru, Niue, the Republic of the Marshall Islands, Tuvalu and Palau are small, with very limited natural resources and poor soil

where subsistence farming dominates with little surplus left for trade.

The Cook Islands, Tonga and Samoa are medium-sized islands engaging in trade mainly for import substitution.

It is in the larger islands, Papua New Guinea, the Solomon Islands, Vanuatu and Fiji, where farmers produce sufficient agricultural goods for export.

Obstacles to trading

No matter their size, the Pacific islands face many difficult challenges when it comes to developing a viable trade sector. The poor quality and limited availability of planting material, the lack of efficient pest control and high post-harvest losses, caused by poor agro-processing techniques, conspire to hold them back. Poor animal health, high feed costs and

underdeveloped domestic and export industries all work against them.

By far the greatest roadblock to increased trade is the lack of capacity to meet international food quality and safety standards. Weak and ineffective food standards systems prevent them from reaping the economic and employment benefits of international trade in agricultural goods and products. So, the regional track of the food security programme focuses on ramping up national and regional agricultural trade capacities, strengthening food quality and safety regimes and developing national food laws.

FAO coordinated regional training on food quality and safety and in international trade. The training looked at the way food is managed in

relation to international trade and the requirements of the World Trade Organization (WTO). The course was designed and coordinated by the Italian National Institute of Agricultural Economics (INEA) in consultation with the Council of Regional Organizations in the Pacific (CROP) and FAO.

According to Andrea Serpagli, the INEA consultant at the training session: "Our wish and hope is that we have somehow contributed to the future development of inter-regional and extra-regional trade in the region."

As part of the programme, FAO designed the regional food and related subjects model legislative template, which helps strengthen national laws concerning food and agricultural practices. It also helps promote trade in food and agricultural products.

As the food security programme nears completion, food production has improved towards self-sufficiency, in effect somewhat lessening the dependence of the islands on imports and saving limited foreign exchange reserves for other growing sectors of their economies.

Future trade and export development strategies for the islands will be influenced by the on-going process of meeting WTO agreements for existing members like Fiji, Papua New Guinea, the Solomon Islands and Tonga, as well as the concurrent negotiations for entry into WTO by potential members such as Samoa and Vanuatu.

In addition to WTO, regional trade in agriculture is also regulated by a number of other existing agreements. These include, the South Pacific Regional Trade and Economic



Marshall Islands: There are markets for island produce like this custard apple, if food standards can be met. (FAO Photo)

"New Zealand is a key strategic export market for Pacific island products," says Vili Fuavao, FAO Subregional Representative for the Pacific Islands. "Pacific Island Countries export more than NZ\$100 million worth of products to New Zealand every year, partly because the large Pacific island community living there has created a market for island produce and products. There is the potential to increase this trade further. One of the first steps to achieve this would be to better understand the export process and the market."

To help fill this trade regulation knowledge gap, FAO produced the DVD *Pacific Island Products - Destined for New Zealand - Understanding the Process*. The DVD was funded through the food security programme and was coordinated and prepared by FAO and the Pacific Islands Trade and Investment Commission in Auckland, New Zealand.

New Zealand offers Pacific island exporters tremendous trade opportunities because demand for tropical and exotic products is growing rapidly as the tastes of New Zealanders widen with travel experiences, education and increasing ethnic diversity. 🌺



Papua New Guinea: Increased trade could raise standards of living for small farmers. (FAO/Heiko Bammann)

The regional track engaged in commodity chain studies in three countries, Kiribati for breadfruit, Fiji for a number of vegetables for import substitution and Vanuatu for the nagai nut for regional and international trade.

Co-operation Agreement (SPARTECA), which allow preferential access to Australia and New Zealand, the Cotonou Agreement for European markets and the Generalised Systems of Preference (GSP) for Europe, Japan and the United States of America.



Vanuatu: Food processing like this cassava flour mill offers islanders new export possibilities. (FAO Photo)

Creating new income opportunities

Understanding global trade rules

The Pacific islands are blessed with an abundance of good sunshine, plentiful rain and fertile soil, the perfect ingredients for growing fresh produce. Being located between the Asian, Australasian and American continents offers Pacific exporters an excellent opportunity to become a major supplier of fresh fruit and vegetables to these markets.

Some Pacific island growers have already developed successful exports in traditional and non-traditional crops, as well as new value added products like frozen cassava, taro chips and banana chips. Still, there is the potential to develop many more new exports.

Take for example the New Zealand market where many seasonal produce varieties are supplied all year round

by countries like the Philippines and Ecuador, which are successful because they can supply the market with large volumes at a consistent market quality. But with exporting, new challenges arise, like understanding the biosecurity requirements of the market destination as well as importer and consumer expectations of quality and reliability.

In a region where such information is not always easy to find and where the internet in many cases is prohibitively expensive and painfully slow, FAO's food security programme needed to find another medium to get the word out to would-be produce growers and exporters. The medium they chose was the Digital Video Disk (DVD).

Where visual information is paramount and distribution is limited, DVDs transmit far more information to

growers and exporters than a brochure. And, they are sturdy and light to send by post. So, FAO teamed up with the Pacific Islands Trade & Investment Commission in Auckland, New Zealand to produce *Pacific Island Products - Destined for New Zealand - Understanding the Process*.

The DVD also served an unusual purpose regarding the food security of Pacific islanders. There is a large Pacific community living in New Zealand and when islanders travel, they traditionally carry food with them. So the DVD also aimed to ensure that food transported privately for gifts or personal consumption stood a better chance of passing New Zealand's strict biosecurity regulations.

By watching the DVD, travelers, growers and exporters learn what challenges lay ahead if they choose

to bring food into, or export food to New Zealand.

For example, all fresh produce entering New Zealand must comply with the Import Health Standard which outlines four main criteria for import: that fresh produce must be inspected and passed in the country of origin, they must have an International Phytosanitary Certificate and contain below the maximum soil contamination levels and be imported in clean new packages.

New Zealand, like many other countries, is concerned to protect its own crops from the fruit fly. If a disease like the fruit fly got into New Zealand it could cost the country hundreds of millions of dollars a year in exports. So the country has additional biosecurity requirements

Bilateral Quarantine Agreement (BQA) in place with New Zealand.

The BQA sets out the maximum pest limit set by New Zealand and the treatments that must be undertaken by the exporting country. It also lays out inspection levels on arrival in New Zealand and contingency actions to be undertaken by the exporting country and New Zealand if pests should be found in the produce.

Consumer expectations

The DVD also supplies helpful information on the expectations that importers and consumers have when it comes to food quality.

As Gordon Hogg of Turners and Growers, a New Zealand food importer, explains, "One of the most important things is packaging, if the produce

no cartons of mixed sizing and that sort of thing.

"One of the problems that we do have with importing from the Pacific is the difference in grading," Hogg explains in the DVD as he points out two boxes of papaya, both with the same grade. "Here we've got one carton that's green and the other one is ripe, we really need them all to be ripe."



Nauru: Fruit like bananas must meet strict export inspections. (FAO Photo)

Hogg leaves viewers with some solid advice: "Whatever country can do the best job in quality and packing and price. That's what we're looking for and that's what our customers are looking for."

There are still many untapped opportunities in international markets for fresh fruit and vegetables from the Pacific islands. FAO is working with Pacific Island Countries and organizations like the Pacific Islands Trade and Investment Commission to improve export opportunities, so that island people can enjoy the higher incomes and healthier lifestyles that global trade can help promote.

To order the DVD, *Pacific Island Products - Destined For New Zealand Understanding the Process*, e-mail: Pacific Islands Trade and Investment Commission at info@pitic.org.nz or visit their website: www.pitic.org.nz 🐉



Tonga: Better understanding of food regulations could improve island trade options. (FAO/Heiko Bammann)

for imported produce that is a potential fruit fly host. In addition to meeting the Import Health Standard regulations, countries exporting produce to New Zealand that could host the fruit fly must also have a

doesn't arrive in good shape, a lot of the buyers won't touch it. Everything needs to be packed in strong packaging and have a very nice presentation. Grading specs have to be pretty much spot-on as well,

Future Pacific food security

A proven path forward



Samoa: More local food availability will improve nutrition in Pacific Island Countries. (FAO/Heiko Bammann)

The Food Security and Sustainable Livelihood Programme in the Pacific Island Countries (FSSLP), the successor initiative to FAO's highly successful *Regional Programme for Food Security in the Pacific*, was developed by the FAO Subregional Office for the Pacific Islands with the assistance of the Organization's Investment Centre, the International Fund for Agricultural Development (IFAD) and relevant members of the Council of Regional Organizations in the Pacific (CROP).

In 2010, the *FSSLP* will begin building on FAO's earlier initiative. It will incorporate the findings of an independent evaluation of that initiative and draw on European Union experience and the lessons learned from IFAD's projects in the region. The goal is to increase food availability and also enable greater access to nutritious food, especially for poor and vulnerable households. The initiative plans to accomplish this by engineering a sustainable expansion in crop and

livestock production as well as boosting the availability of food products from the fisheries and forestry sectors.

The *FSSLP* will be implemented as a strategic investment programme with funds of about US\$42 million. It has two country project components - one directly addressing community needs, the other strengthening services in support of the most vulnerable communities. A third component will support multi-country food security initiatives, including capacity building, trade, food safety and climate change.

Community support and household investment

The *FSSLP* will support activities that promote sustainable agriculture and small-scale fisheries, with particular focus on:

- * organic products;
- * farm and non-farm income generation;

- * improving human nutrition, especially of children and women;
- * better food processing and value chain development and marketing;
- * agriculture and food trade, including food safety and quality, and niche markets;
- * sustainable natural resource management and climate change preparedness;
- * crop and livestock development;
- * integration of agro-forestry and non-timber products into the livelihood system;
- * small-scale fisheries and aquaculture; and,
- * food processing, marketing and value chain development.

Capacity building and service facilities

To increase its impact, the *FSSLP* will also support country efforts to improve access by rural communities to agricultural services such as farm inputs and markets. Country projects likely to receive assistance are:

- * seed multiplication facilities;
- * fish hatcheries and fishing community centres;
- * transportation infrastructure, such as wharf and boat servicing;
- * facilities for agricultural research and food processing;
- * roads leading from farm-to-market; and,
- * capacity building for development agencies.

The Pacific Island Countries, FAO and IFAD are keen to expand the *FSSLP* partnership and are actively discussing investment opportunities with potential partners, especially in the region, on technical and financial aspects. 🌿



Managing food security

The countries

Despite scarce resources and limited personnel, the 14 Pacific Island Countries (shown on map) established National Project Steering Committees (NPSCs) to coordinate, organize and supervise project activities. Representation on the NPSCs includes agencies directly concerned with national food security. Also represented on the NPSCs are local communities, the private sector and non-governmental organizations.

The NPSCs build useful partnerships and reduce chances that projects may become isolated from related activities.

Regional Project Steering Committee (RPSC)

Membership

- * Chairperson: FAO Subregional Representative for the Pacific
- * Representatives from each of the Pacific subgroups: Melanesia, Micronesia and Polynesia

- * Representative of the Council for Regional Organization in the Pacific (CROP)
- * Representative of the donor
- * Secretary - FAO and the RPMU

The Regional Project Steering Committee issues overall guidance for the Regional Project Management Unit (RPMU), which is staffed by a Coordinator, Assistant Coordinator and a number of technical experts.

South-South Cooperation

A total of eight regional experts were posted in the field under the South-South Cooperation initiative; four in Samoa and another four in Papua New Guinea. China and the Philippines provided 56 field technicians in support of the country projects. FAO contributed US\$2.8 million to cover its own programme costs as well as some of the costs to recipient countries for technical experts and technicians.

Other partners

- Pacific Islands Forum Secretariat
- The Secretariat of the Pacific Community
- University of the South Pacific

FAO Subregional Office

The food security programme benefits from direct access to FAO technical officers working out of the Organization's Subregional Office for the Pacific Islands in Apia, Samoa. These officers provide significant assistance, following up on project activities.

INEA

Italy's National Institute of Agricultural Economics (INEA) took the lead designing and implementing regional activities.

Donors	US\$
Italy	7.06 million
FAO	2.8 million
Total	9.86 million



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Back cover photo: On World Food Day in Niue, islanders celebrate their food heritage. (FAO/Niu Tauevihi)

Cover photo: Local produce at market in Papua New Guinea. (FAO/Heiko Bammann)

Lower cover photos: Samoan palm leaves. (FAO/John Riddle)