



Food and Agriculture  
Organization of the  
United Nations

SUSTAINABLE  
DEVELOPMENT  
**GOALS**

working for Zero Hunger

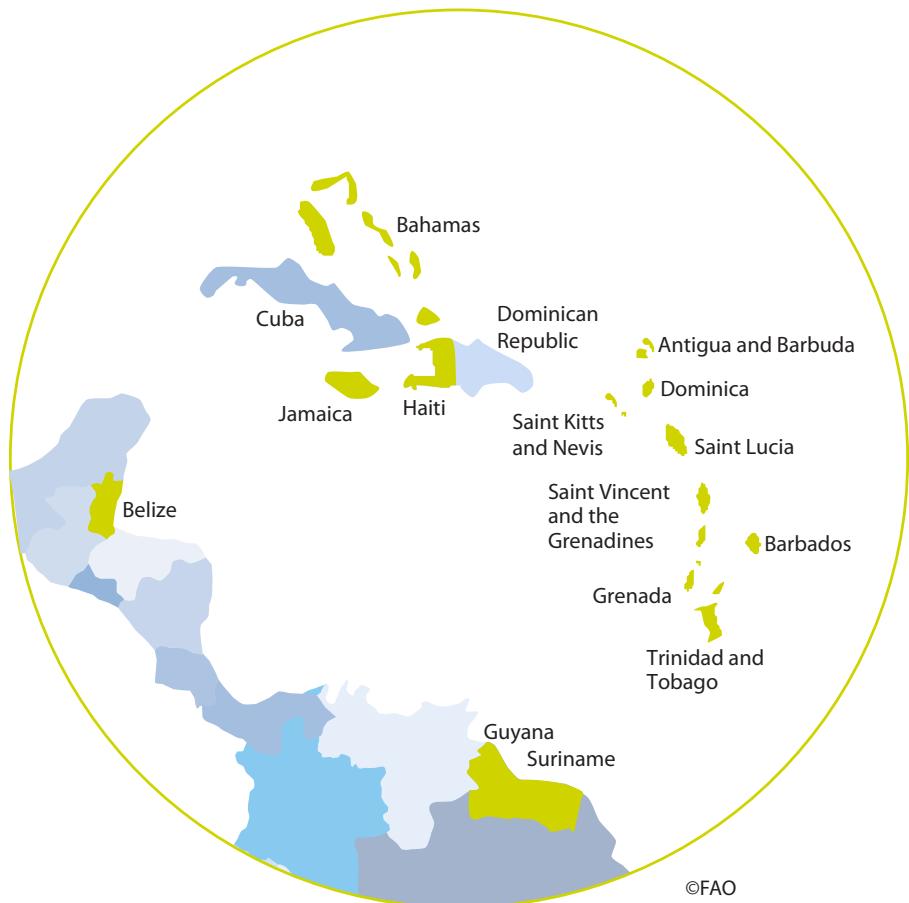
# FAO in the Caribbean

## Key Results 2012–2016





# FAO in the Caribbean: making an impact



The Food and Agriculture Organization of the United Nations (FAO) works with 14 Caribbean Community (CARICOM) countries to enhance food and nutritional security (FNS), eradicate hunger and malnutrition, improve livelihoods and support rural development.

Between 2012 and 2016, FAO's Subregional Office for the Caribbean, based in Barbados, led several projects to fulfill priority areas including FNS, sustainable production and productivity growth, resilience and risk management, as well as a special focus on Haiti.

Key achievements include implementing the Zero Hunger Challenge to combat malnourishment; enhancing economic opportunities through agricultural diversification; supporting sustainable production and productivity through pest management prediction; strengthening the cassava industry through the promotion of value chains; and, building resilience to climate risks.

Examples included in this brochure are a testament to the FAO's commitment to supporting a Caribbean that is free from hunger and malnutrition, where food and agriculture contribute to improving the living standards of all, especially the poorest, in an economically, socially and environmentally sustainable manner.

# Antigua and Barbuda: zero hunger programme increases access to healthy food to combat undernourishment



Pockets of undernutrition, both stunting and wasting, have been reported in the child population in Antigua and Barbuda. With the recent economic downturn, concerns have been raised about possible increases in undernutrition, especially in vulnerable communities. There is also the challenge of rising levels of obesity, largely associated with poor food choices, increased consumption of processed foods, fast food and fried foods, resulting from a general lack of nutrition education. Emphasis must therefore be placed on improving access to healthy foods and on nutrition education to promote healthy food choices.

To improve access to health foods, nutrition education and promote healthy choices, the Government of Antigua and Barbuda (GOAB) took a bold step in February 2013 to launch the country's Zero Hunger Challenge Initiative (ZHCI). The program started when the country was facing several challenges, including high poverty rates, and low economic growth. With the assistance of the FAO, the Inter-American Institute for Cooperation on Agriculture (IICA), the Pan American Health Organization (PAHO) and other international development partners, the GOAB designed a Plan of Action that was implemented within two years which addressed five critical areas that required urgent attention.

Two priority areas of the ZHCI that have been particularly successful are National School Meals Program (NSMP) and the Backyard Garden (BYG) project. To date, the NSMP has succeeded in expanding its coverage in more than 90% of the schools. The program was significantly modified compared to what it was in 2012, based on recommendations from a baseline evaluation

that was conducted under the ZHCI. In particular, there was some improvement in the kitchen, an overhaul of the menu and new equipment was procured to improve the meal services to students.

The BYG project has received positive evaluations from the beneficiaries. Of particular significance is the fact that 82% of the BYGs that were established under the ZHCI are currently in operation. Moreover, 22% of these BYGs are self-supporting, and do not require any assistance from the Ministry of Agriculture, Land, Fisheries and Barbuda Affairs. Among the current BYGs, about 5% have transitioned to semi-commercial/commercial operations. Beneficiaries have reported that the BYGs have helped them in many ways, including saving money, consuming more vegetables, getting exercise; and earning cash.



# Barbados: value chain development leads to expansion of cassava industry



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Cassava plays an important role in the dietary needs and incomes in many rural communities in the Caribbean. Despite its rich history in the region, the development of the cassava industry falls well below its potential in Barbados, due to poor management and resource constraints. With imports of wheat and corn weighing heavily on the foreign reserves, cassava presents an untapped resource to help alleviate the pressure on the high food import bills and improve livelihoods for small-scale farmers, processors and the rural population.

In 2014, FAO launched a Processing and Market Development of Cassava Project in Barbados to introduce value chains that addressed constraints to agro-processing, market development and promote cassava products. By leveraging partnerships with key stakeholders, the project effectively encouraged the use and export of value-added cassava products in national, regional and international markets to stimulate the development of the cassava industry. These results have supported sustainable food and nutrition security in Barbados, and promoted the creation of new employment opportunities as well as a revitalization of the rural sector.

By working in collaboration with the Barbados Ministry of Agriculture, Food, Fisheries and Water Resource Management, the project was

instrumental in introducing a Barbados Cassava Strategic Industry Plan and a National Cassava Value Chain Coordinating Committee to provide national leadership on product development.

A key output was the significant development of cassava blended bread in Barbados, made possible through project support for the provision of training, new equipment and technologies. The country's largest bakery, Purity Bakeries, now offers two product lines of cassava bread and produces up to 2 100 loaves per week. Between 2015 and 2016, the company increased its distribution from one storefront to eight retail outlets. Expansion is expected to continue to gas station outlets. To date, two additional bakeries produce the blended cassava bread.

By facilitating stronger linkages between policy makers, cassava farmers, processors and markets, the project led to a 400% increase in sales of cassava blended breads and a 200% increase in farmer participation in supplying cassava in Barbados.



# Haiti: improved dairy sector advances sustainable production and economic growth



Faced with a high level of food insecurity, Haiti struggles with the capacity, safety and sustainability of its milk and dairy products. These issues threaten the country's nutrition levels and economic growth. They hinder the production, diversification, marketing and technical services needed to properly support a prosperous dairy sector that can adequately supply the local population with pasteurized milk, yoghurt, butter and cheese.

These issues are largely due to restricted capacities among dairies and along the dairy value chain (including extension services and veterinarians), under-resourced government services, poor animal feeding and health management, high production costs, variable quality of dairy products, little incentive to increase output, inadequate marketing strategies, and a poorly organized market with irregular supply to consumers.

High competition between the informal raw milk market and dairies has proven to be a challenge as a result of a high consumption of raw milk from local markets. Informal sources operate without government regulation. They produce raw milk that is adulterated with water from dubious sources and kept under poor

conservation conditions at a very high risk to the health of consumers.

In 2016 with financial support from the Haiti Reconstruction Fund (HRF), FAO established a two-year project to respond to these challenges by promoting safe and sustainable agriculture, family farming, economic growth and employment in the country's dairy sector.

Through training in good governance and livestock management, technical expertise to increase product lines, an expansion of marketing strategies and increasing the capacity of government officials and local non-governmental organizations (NGOs); the project has made steady gains to strengthen Haiti's dairy sector.

Ten farmers / milk producer associations (1 000 families) have enhanced their technical and organizational capacity, allowing them to increase their milk production and establish milk testing / collection points.

The technical capacity of the employees of 11 mini-dairies has also improved, offering new opportunities that are stable, diversified and remunerative to milk producer families.

In addition to training, these mini-dairies also benefitted from scaling up of equipment, implementing place collection points and diversification of dairy product lines.

New comprehensive marketing strategies for local dairy products were also established, consolidated and implemented to promote diversified and good quality yoghurt, flavored milk, pasteurized milk, butter, cheese and sterilized milk, thus creating private sector milk marketing agents.

Dairy producers have reported that the health and productivity of their animals has improved since the launch of the project have to better access to veterinary drugs through 11 mini-pharmacies established around the dairies across the country. To date, dairy producers have seen a 20% increase in raw milk sales to ensure food security and reliability; an improvement in the quality of raw milk; and, a 90% decrease in losses thereby improving the yield and quality of their products.

As the project moves to closer its 2018 completion date, its multi-stakeholder approach including producers, government technicians, veterinary agents and NGOs makes it well-positioned to ensure the sustainability of project achievements.



# Jamaica: pest forecasting supports food security



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Jamaica's agricultural sector plays an important role in contributing to national food security, and is largely dominated by small-scale farmer families. In particular, the farmers of the parish of St. Elizabeth are major producers of scallion and other crops.

However, significant advances in onion and scallion production and key for livelihoods improvement, were threatened by periodic outbreaks of beet armyworm (*Spodoptera exigua* [BAW]) infestations. Despite efforts by the farmers and government agencies to control the outbreaks, the devastation continued to erode the progress that had been made, and the livelihoods of the affected farmers.

In 2013, FAO introduced a two-year project in Jamaica designed to provide technical expertise and critical support that developed a coordinated response to the pest, strengthened the ability of farmers and extension workers to monitor conditions that promoted infestation, and implemented pro-active steps to prevent or mitigate future outbreaks.

The project's collaborative approach led to the successful training of a wide range of stakeholders to better understand and embrace their roles and responsibilities in the management of this pest. Particular emphasis was placed on engaging farmers to promote the required changes in crop production and protection practices in a sustainable manner, through farmer-led Farmer Field Schools (FFS).

These Farmer Field Schools also provided the

'horizontal' transfer of knowledge, skills and attitudes.

The development of a data-driven pest-forecasting tool for early warning of BAW outbreaks also proved to be a key output. In partnership with Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance (ACDI/VOMA), a complementary BAW monitoring and surveillance application for mobile phones was developed using the Open Data Kit (ODK). This was implemented by extension officers and FFS farmers to collect field pest data and transmit in real time.

Since the project, the relationship among farmers, researchers and extension officer continues to grow. The farmers feel empowered as partners in the process of monitoring and managing the pest issues that affect their livelihoods. At the same time, the researchers and extension officers have greater credibility among the farmers and are better equipped with the knowledge and tools to provide the support that farmers expect.

To date, there have been no significant outbreaks of BAW after the completion of the project. Flare ups have occurred but are short-lived due to quick action by farmers and extension officers, based on what has been learned through the project.



# St. Kitts and Nevis: agricultural diversification improves farmer livelihoods



As a net food importing country, Saint Kitts and Nevis is relatively food-insecure and vulnerable to extreme climatic events, as well as to global economic shocks caused by increasing food or energy prices. To address these issues, the government recently sought to create employment and income-earning opportunities, particularly for women and young people, and embarked on a path of agricultural renewal to reduce its food import bill.

As part of this process, the production and marketing of onions and cole crops (cabbage, broccoli and cauliflower) was identified to contribute to the creation of rural employment opportunities and, by extension the improvement of national food and nutrition security.

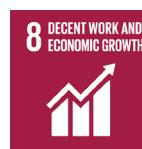
In 2014, FAO launched a project in St. Kitts and Nevis to boost production of these crops using a three-pronged approach. The first component was to strengthen the crop production skills of farmers for enhanced quality and quantity of locally available produce. The second element focused on building the marketing capacity of farmers and their groups/associations, including women and young people, as well as that of the Department of Agriculture. Thirdly, technical manuals and other communication materials were prepared and shared with farmers and institutions nationally.

As a result, the country experienced a significant improvement in the production, pre-and post-harvest handling, storage and marketing of onions and cole crops. For example, farmer training and the marketing and storage strategy developed by the project has left farmers in a stronger position

to market their produce and generate income for their households.

Key outcomes include the training of 16 extension officers in the Farmer Field School curriculum and a crop production manual for onions and cole crops with a focus on socio-economic and gender issues, as well as the establishment of four field schools with 106 participants (76 men and 30 women). The Department is in the process of establishing at least two additional farmer field schools to train farmers in two more areas in St. Kitts.

Furthermore, another FAO project is currently utilizing the expertise of the trained Technical and Extension Staff for the establishment of backyard and school gardens, as well as the training of backyard gardeners and primary school children and teachers in the primary schools in sustainable crop production practices.



# Suriname: boosting sustainability of fisheries through bycatch reduction



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Each year, a high number of marine animals have been caught unintentionally by Suriname's fisherfolk, hindering the achievement of a responsible and sustainable fisheries industry in that country. This issue, also known as bycatch, has killed endangered species related to the shrimp and finfish trawling sectors such as sharks, rays and turtles.

In 2017, FAO assigned a portion of its resources for the Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries Project to resolve bycatch issues in Suriname. Designed to fulfill Regional Initiative 2 and Sustainable Development Goal 14, the project supports the conservation and sustainable management of oceans, seas and marine resources.

Through the project, FAO has provided expertise and funding for the development and testing of new bycatch reductions devices and worked to create alliances with the World Wildlife Fund (WWF) and other partners so that Suriname can benefit from their technical expertise.

By working with national level policy makers such as the Ministry of Agriculture, Natural Resources and Rural Development and Ministry of Public Health and Population, the project has

successfully helped Suriname's shrimp and finfish trawling industry to adopt more responsible practices. Thanks to the introduction of bycatch reduction devices and adapted turtle reduction devices, the capture and death of sharks, rays and turtles has dramatically decreased, leading to a more sustainable fishery.





