



Food and Agriculture  
Organization of the  
United Nations

Strategic  
work of  
FAO for

# **INCLUSIVE AND EFFICIENT FOOD SYSTEMS**



STRATEGIC PROGRAMME  
TO ENABLE INCLUSIVE AND  
EFFICIENT AGRICULTURAL  
AND FOOD SYSTEMS

# CONTENTS

**PAGES 4-5**

THE IMPORTANCE OF  
ENABLING INCLUSIVE AND  
EFFICIENT AGRICULTURAL  
AND FOOD SYSTEMS

---

**PAGES 6-13**

THE FAO APPROACH TO  
INCLUSIVE AND EFFICIENT  
AGRICULTURAL AND FOOD  
SYSTEMS

---

**PAGES 14-27**

ACHIEVING RESULTS  
AND SHOWING IMPACT

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FOR MORE INFORMATION ON THE STRATEGIC  
WORK OF FAO TO ENABLE INCLUSIVE AND  
EFFICIENT AGRICULTURAL AND FOOD SYSTEMS  
[www.fao.org/about/what-we-do/so4/en/](http://www.fao.org/about/what-we-do/so4/en/)

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**TUNISIA**

The market of "Bir El  
Kassaa".  
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## KEY MESSAGES

➤ In our increasingly interconnected world, strengthened agriculture and food systems have a critical role to play in achieving the targets of the Sustainable Development Goals of eliminating poverty and hunger, and increasing our resilience to climatic and economic shocks.

➤ Globalization, rapid urbanisation and changing consumer preferences have created opportunities for agricultural and food systems. However, they have led to challenges related to malnutrition, food safety, environmental degradation, significant food loss and waste, and the risk of exclusion from participation in markets for women, youth and other vulnerable groups, small-scale farmers, herders and fisher folk, small and medium enterprises, and small economies.

➤ Approximately three-quarters of the world's agricultural value-added activities take place in developing countries. The increasing demand for high-value products on international and domestic food markets provides an opportunity for developing countries to generate economic growth and gainful employment.

➤ Inadequate public and private investments continue to hinder the development of inclusive and efficient agricultural and food systems.

➤ FAO provides assistance and capacity building to countries to access international markets, and to meet international standards for food safety, plant health and animal health.

➤ FAO supports countries to develop strategies, policies and regulatory frameworks that support efficient and inclusive agricultural and food systems.

➤ FAO assists countries to mobilize and improve public and private sector investment in agricultural and food systems, to strengthen the technical and managerial capacity of stakeholders along agrifood value chains and facilitate their access to finance, and to improve the sustainability, efficiency and inclusiveness of these chains.

**“WE MUST PROMOTE A PARADIGM SHIFT, TOWARDS AGRICULTURE AND FOOD SYSTEMS THAT ARE MORE PRODUCTIVE AND INCLUSIVE, AND ADAPTED TO CLIMATE CHANGE.”**

José Graziano da Silva,  
FAO Director-General



# THE IMPORTANCE OF ENABLING INCLUSIVE AND EFFICIENT AGRICULTURAL AND FOOD SYSTEMS

In linking production to consumption, agricultural and food systems influence the availability, affordability, sustainability, diversity, quality and safety of food and agricultural products.

Evolutions in these systems also significantly affect processes of economic development and structural transformation. The way in which agricultural and food systems develop over the next 15 years will be a key determinant of the achievement of national and global targets set out in the Sustainable Development Goals (SDGs).

Agricultural and food systems in the world are undergoing dramatic changes. They are becoming increasingly globalized, concentrated, industrialized and science

and capital-intensive. Rapid urbanisation and increases in income levels are also driving changes in consumer preferences. Although these developments provide immense opportunities, they can also give rise to several challenges within the country. These include

**FAO PROVIDES ASSISTANCE TO ENHANCE THE INCLUSIVENESS OF FOOD AND AGRICULTURE SYSTEMS BY ENGAGING SMALLHOLDER PRODUCERS AND ECONOMICALLY SMALL COUNTRIES.**

growing malnutrition; increased incidences of food safety issues and transboundary animal and plant disease outbreaks; the misuse of antimicrobials that results in antimicrobial resistance; and significant levels of food loss and waste. Other more global challenges include environmental degradation and climate change. In addition, those segments of society that traditionally have less access to education, resources and capital, namely women, youth, urban and rural poor, indigenous peoples, and smallholders, face barriers to participate in modern value chains. Also, small-scale farmers, herders and fisher folk, and small and medium agro-enterprises are increasingly dependent on dominant actors further downstream in value chains. Poorer countries that may be relatively minor players in the global market, risk exclusion from new market opportunities.

The post-production aggregation, processing, distribution, consumption and disposal of



## SERBIA

FAO and EBRD work with Serbian sour cherry producers to help them earn higher revenues.  
©EBRD

## QUICK FACTS

➤ To end poverty and hunger by 2030, an additional average of US\$265 billion per year will be required during 2016–30. Some US\$198 billion of this amount will be for pro-poor investments in the productive sectors. (FAO/IFAD/WFP, 2015).

➤ Continuing population growth and urbanization are projected to add 2.5 billion people to the world's urban population by 2050, with nearly 90 percent of the increase concentrated in Asia and Africa (UN, 2014).

➤ Roughly one in three people worldwide work in the agri-food system. (FAO, 2013).

goods coming from agriculture, forestry, aquaculture or fisheries form a critical component of agricultural and food systems that provides the focus for the work of FAO through its Strategic Programme 4. Countries are assisted in meeting international standards for food safety and hygiene and accessing international markets. In addition, FAO helps

countries to improve processes and increase investments along entire value chains so that better and higher quality products reach the market and higher prices are achieved by producers. The Organization also provides assistance to enhance the inclusiveness of food and agriculture systems by engaging smallholder producers and economically small countries.

# THE FAO APPROACH TO INCLUSIVE AND EFFICIENT AGRICULTURAL AND FOOD SYSTEMS

## SUPPORTING COUNTRIES IN IMPLEMENTING AND ENFORCING STANDARDS

Internationally agreed standards on plant health, animal health and food safety make a critical contribution to the safety and quality of food, thereby protecting consumers.

Countries need support to implement and enforce the relevant regulations and standards and value chain operators must have the ability to comply with the food standards prepared by FAO and WHO, namely Codex Alimentarius. FAO works with countries to strengthen regulatory frameworks and policies for plant health, animal health, food safety and food quality and promotes public-private dialogue and collaboration on voluntary standards.

### QUICK FACTS

- > The number of notifications of new sanitary and phytosanitary (SPS) measures to the WTO have increased from a few hundred in the mid-1990s to almost 13 000 in 2011. (FAO, 2016).
- > The Joint FAO/WHO Expert Committee on Food Additives (JECFA) has evaluated more than 600 food additives, approximately 50 contaminants and naturally occurring toxicants, and residues of over 90 veterinary drugs for the development of international food standards as an independent scientific basis.
- > The Joint FAO/WHO Expert Meetings on Microbiological Risk Assessment (JEMRA) conducted risk-assessments of more than 20 hazard-commodity combinations since 2000.



## CÔTE D'IVOIRE

Thanks to relatively simple and inexpensive technology like the FTT ovens, fish smokers enjoy better health while producing a safer and better quality product, fetching higher prices.  
©FAO/Sia Kambou

# ASSISTING COUNTRIES TO BENEFIT FROM TRADE

New and existing trade and trade-related agreements and mechanisms play a key role in facilitating the development of enabling trading systems that are important to the functioning of food systems and food security.

FAO assists countries in building capacities to better understand rapidly changing international markets, trade rules and the potential consequences of these changes, including the threats and opportunities of opening to trade, and potential strategies to address them.

FAO works with countries to facilitate neutral dialogue on issues related to the formulation

of trade agreements, and promote the use of evidence in the formulation and adoption of such agreements. It also supports the strengthening of national systems and their adaptation to international norms and standards in order to take advantage of trade agreements.

## QUICK FACTS

> The value of global agricultural exports nearly tripled between 2000 and 2012, while agricultural exports increased by about 60 percent in volume terms over the same period. (WTO, 2014).

> Food imports to Least Developed Countries (LDCs) between 1992 and 2011 increased about fivefold. (FAO, 2016).

> Low and middle-income countries account for approximately one-third of global trade in food and agricultural products.

> The number of regional trade agreements has expanded from fewer than 20 in 1990 to 262 in force in 2016. (FAO, 2016).



### **COSTA RICA**

Workers selecting pineapples (ananas cosmosus) for packaging, in accordance with export standards.  
©FAO/Ezequiel Becerra

# DEVELOPING INCLUSIVE AND EFFICIENT VALUE CHAINS



The increasing demand for high-value products in international and domestic food markets is an opportunity for developing countries to generate economic growth and gainful employment.

However, modernizing agro-industries and agri-food chains also pose risks in terms of equity, sustainability and inclusiveness, particularly for smaller-scale farmers and agro-enterprises; underscoring the need for policies and strategies that address these risks. FAO works with countries to formulate and implement agro-industry, agribusiness and value chain development strategies and platforms, in tandem to providing related policy guidance, knowledge generation and capacity development. The Organization also works to strengthen the capacities of producer organizations, promote effective policies on decent job creation, entrepreneurship, and incentives for innovation and investment, especially for women, whose work is often key along the value chain.

## QUICK FACTS

- > Approximately three-quarters of global agricultural value-added products are generated in developing countries. (FAO, 2013).
- > During 2014-15, FAO supported 56 countries to implement inclusive, efficient and sustainable value chains while 60 countries were provided support to increase the availability of financial products and services to the agricultural sector. (FAO, 2014-15).
- > The post farm-gate segments of the food value chain represent 50-70 percent of the value added products and costs in the overall food chain in Asia. (FAO, 2014).



## REDUCING FOOD LOSS AND WASTE

Food loss and waste contributes to food insecurity, squanders precious natural resources, unnecessarily increases greenhouse gas emissions, and generally slows economic and social development.

Combating food loss and waste requires different approaches. Most food waste occurs at the consumption stage, whereas food losses arise from inadequate infrastructure, technologies and practices along the value chain.

The causes of food loss and waste in low-income countries are mainly connected to financial,

managerial and technical limitations in harvesting techniques, storage and cooling facilities in difficult climatic conditions, infrastructure, packaging and marketing systems. Given that many smallholder farmers in developing countries live on the margins of food insecurity, a reduction in food losses could have an immediate

and significant impact on their livelihoods. FAO works with countries to provide data and support to calculate countries' levels of food loss and waste, while at the same time promoting better linkages between industry, research, governments, civil society organizations and consumers in the crucial fight against food loss. In building the capacity of developing countries to improve harvesting practices, transport, processing and storage facilities, FAO also supports national policies, practices and technologies that would help minimize food loss and waste.

# PROMOTING INVESTMENT AND AGRIBUSINESS FINANCE

The lack of financial services and products that adapt to the rural and agricultural sector is one of the key constraints limiting the development of inclusive and efficient agricultural and food systems.

At the same time, inadequate public and private investments continue to confound the development of inclusive and efficient agricultural and food systems. To address this, FAO is working with countries to increase levels of appropriate investments in agricultural and food systems through a number of initiatives. FAO is developing capacities among public and private actors to shape an enabling policy environment. In promoting

principles for responsible operations, FAO helps officials to improve their efficiency of public expenditures, strengthen policy and governance processes, and develop investment statistics. They are also assisted in the design and implementation of financial and risk management and investment instruments and approaches, guided by best practices and using innovative financial and investment instruments that are inclusive and responsive to stakeholders'

needs. Based on sound analyses, evidence and good practices, FAO supports value chain stakeholders in improving the level and quality of public and private investments, and when appropriate in promoting public-private partnerships, processing and marketing activities, and accessibility to financial services and risk management tools, assisting them to operate in a climate sensitive, environmentally friendly way.

## QUICK FACTS

- > As global food production will need to increase by 60 percent from the 2005-2007 levels, an estimated annual average of US\$83 billion of net investment in agriculture in developing countries will be required.
- > About 6 percent of total world Foreign Direct Investment (FDI) flows in 2012 were in the food processing sector. (UNCTAD, 2012).

- > In Africa, about 20 percent of FDI flows in the manufacturing sector – or six percent of the total FDI inflows – are in the food and beverages sector. (UNCTAD, 2012).

- > In Latin America and the Caribbean, the food industry represents 30 percent of FDI in manufacturing or 11 percent of the total FDI inflows. (UNCTAD, 2012).

- > In 2014, 34 out of 56 countries (for which data were available) supported by FAO, showed a slight increase in the year-to-year crediting to agriculture, in real terms. (FAO, 2015).

# ENSURING POLICY SUPPORTIVE OF FOOD SYSTEM DEVELOPMENT

There is growing recognition by decision makers that policies need to be monitored and evaluated in order to be improved and to achieve the objectives of the government.

The way policies interact can support or hinder the efficiency and development of agricultural and food systems and, as a result, agricultural sector growth. Unstable policy environment and volatile prices due to rapidly evolving international as well as domestic market forces have affected production decisions, consumption levels and marketing/trade options in most developing countries.

Understanding the factors that lead to price volatility particularly in domestic markets and the drivers of policy/institutional instability will help decision makers and other stakeholders make better-informed decisions and adopt evidence-based risk management strategies and tools. FAO supports countries in policy monitoring and evaluation for improved price and market incentives. The specific areas of support range from improving national data collection, to developing relevant indicators, to analysing and disseminating them and to enhancing evidence-based policy dialogue.



## QUICK FACTS

> Trade-related policy interventions may at times have a stronger influence on long-run economic growth, investment incentives and distribution of global welfare compared to price and supply fluctuations. (Anderson, Rausser and Swinnen, 2013).

> Many developing countries are gradually phasing out

anti-agricultural policies and some are increasingly protecting their import-competing farmers.

> In 10 African countries studied by FAO's MAFAP Project, between 2010 and 2015, the level of price incentives is generally low, though strong heterogeneity exists across countries and commodities analysed. (FAO, MAFAP Project).

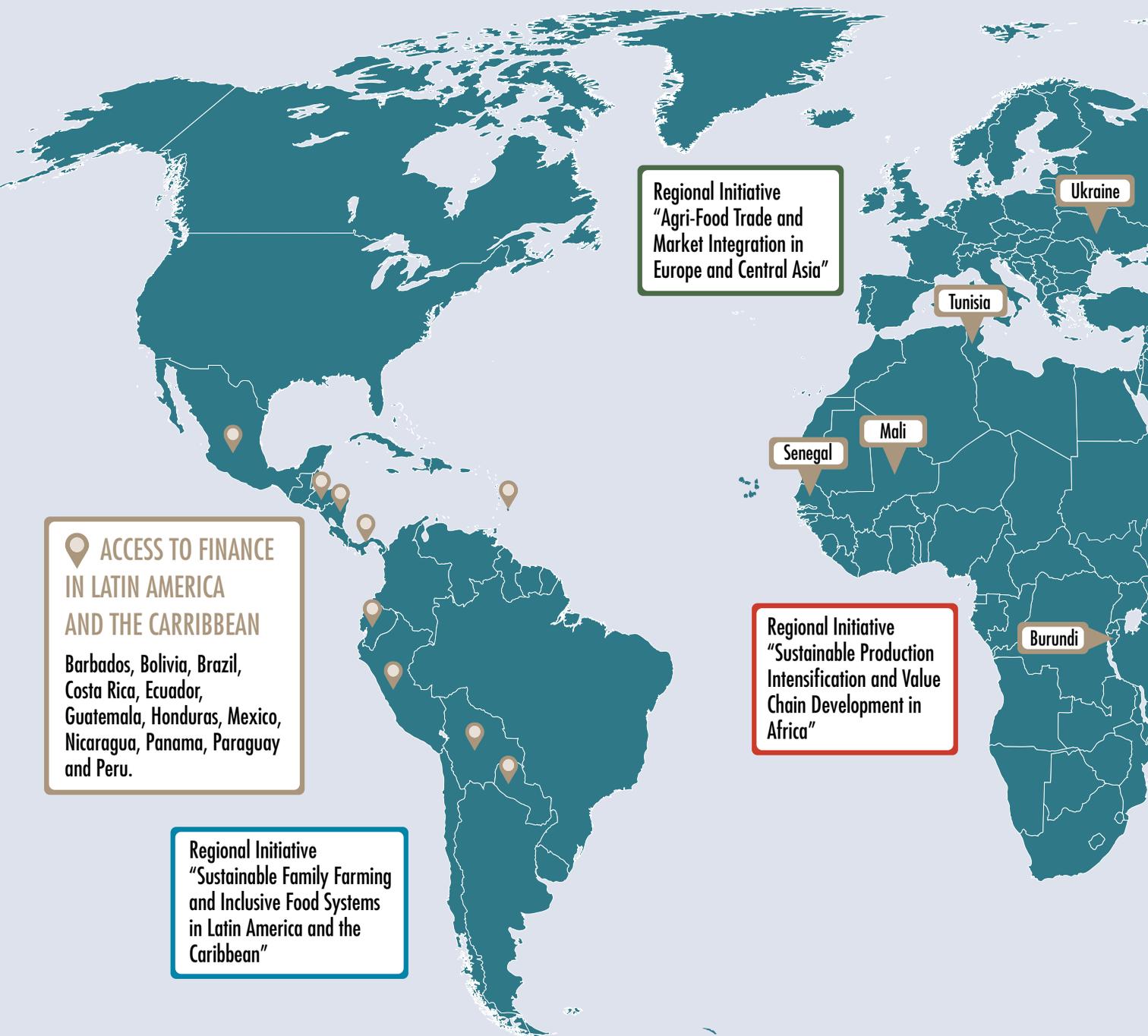
> A declining trend in budget allocated to agriculture was observed in several African countries suggesting that the related Maputo/Malabo target is unlikely to be met. (FAO, MAFAP Project).



**BANGLADESH**

Members of a village-based organization discuss the development of an agro-mall with FAO project staff  
©FAO/David Neven

# ACHIEVING RESULTS AND SHOWING IMPACT



**ACCESS TO FINANCE  
IN LATIN AMERICA  
AND THE CARRIBBEAN**

Barbados, Bolivia, Brazil,  
Costa Rica, Ecuador,  
Guatemala, Honduras, Mexico,  
Nicaragua, Panama, Paraguay  
and Peru.

**Regional Initiative  
"Sustainable Family Farming  
and Inclusive Food Systems  
in Latin America and the  
Caribbean"**

**Regional Initiative  
"Agri-Food Trade and  
Market Integration in  
Europe and Central Asia"**

**Senegal**

**Mali**

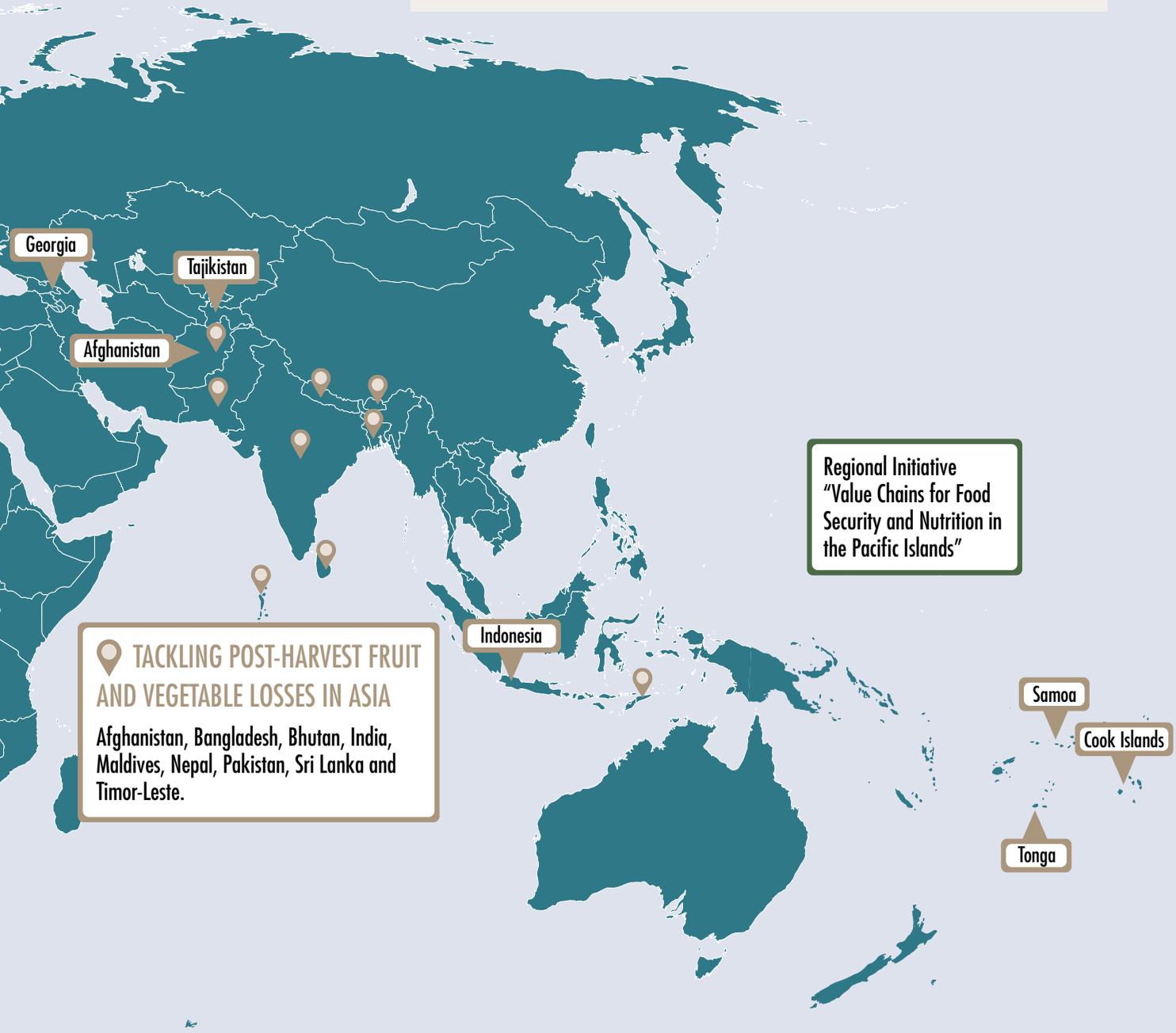
**Tunisia**

**Ukraine**

**Regional Initiative  
"Sustainable Production  
Intensification and Value  
Chain Development in  
Africa"**

**Burundi**

In close collaboration with its partners, FAO works to enable inclusive and efficient agricultural and food systems in countries and regions around the world, as illustrated in the **following examples**.



Georgia

Tajikistan

Afghanistan

Indonesia

Samoa

Cook Islands

Tonga

**TACKLING POST-HARVEST FRUIT AND VEGETABLE LOSSES IN ASIA**  
Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka and Timor-Leste.

**Regional Initiative "Value Chains for Food Security and Nutrition in the Pacific Islands"**

# REGIONAL INITIATIVES

Through its Regional Initiatives, FAO seeks to help address the many challenges across the value chain that small producers, and even small economies face.

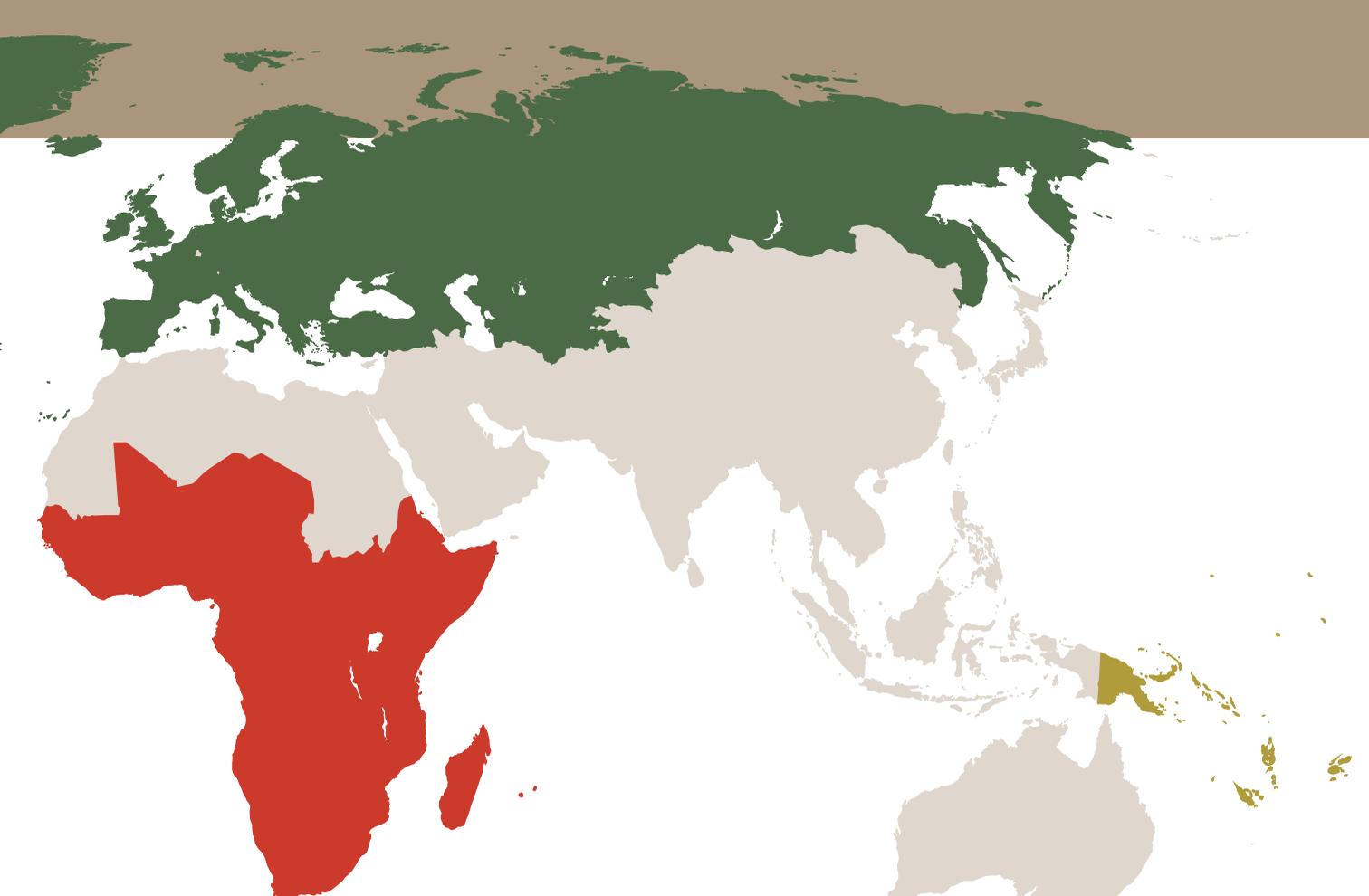
Food and agricultural systems need to increase inclusiveness by linking smallholder producers with agribusiness enterprises and supply chains for effective and sustainable participation in rapidly changing markets. To do this, FAO helps develop necessary tools such as analytical information for sound policies; building capacities at the institutional and individual levels; and helping to fight food losses and waste.

## SUSTAINABLE FAMILY FARMING AND INCLUSIVE FOOD SYSTEMS IN LATIN AMERICA AND THE CARIBBEAN

This Regional Initiative aims at improving access of poor people to productive assets (land, water, energy, facilities) as well as financial (credit, savings, insurances) and non-financial (technical assistance, innovation, knowledge) rural services. FAO works to strengthen producers organizations and promote rural communities participation in sustainable development strategies, focusing on building inclusive, efficient, resilient and nutrition-sensitive food systems. FAO promotes the strengthening of value chains and public supply systems, and the increase of fresh and healthy food while reducing country dependency on imports and enable rural families to become more resilient before economic and natural shocks.

## SUSTAINABLE PRODUCTION INTENSIFICATION AND VALUE CHAIN DEVELOPMENT IN AFRICA

Following the “Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods”, this Regional Initiative addresses bottlenecks along value chains through which production increases resulting from actions to sustainably intensify production and increase productivity. Improved management of value chains will contribute to market and agribusiness development with specific attention to providing opportunities and services that cater to women and youth.



## REGIONAL INITIATIVE ON AGRI-FOOD TRADE AND MARKET INTEGRATION IN EUROPE AND CENTRAL ASIA

Through its Regional Initiative, FAO assists countries in creating a supportive policy environment for trade in agriculture and food commodities. The Organization develops capacities to design and implement trade agreements and food safety and quality standards. FAO also works in building capacity on WTO issues, sanitary and phytosanitary measures, trade facilitation and dispute resolution, the application of modern methods of risk analysis and good practices from Codex, International Plant Protection Convention (IPPC) and World Organisation for Animal Health (OIE). In addition, FAO supports country capacities for using Geographical Indications as a branding tool to increase food quality. Beneficiaries include civil servants, scientists and industries with a focus on small and medium sized enterprises.

## VALUE CHAINS FOR FOOD SECURITY AND NUTRITION IN THE PACIFIC ISLANDS

The declining export competitiveness of farmers and fishers, coupled with increased dietary dependence on imported food, has led public and private stakeholders in the Pacific to prioritize improving the capacity of their agri-food sectors to meet their domestic food needs. Since 2014, this Regional Initiative aims at developing local value chains for food and nutrition security. It focuses FAO efforts to strengthen the capacities of local food producers, to supply more food to domestic and tourist markets, to meet demands for a balanced and nutritious diet, and to reduce food and feed imports. This includes supporting the development of policy and regulatory frameworks, which rely on improvements in capacity to assemble, integrate, analyse and disseminate information on food, nutrition and natural resources.

## FROM THE FIELD

### STRENGTHENING CAPACITY ON FOOD SAFETY RISK ANALYSIS IN MALI



While countries are fully aware that risk analysis should be at the basis of priority setting and decision-making by public authorities in food safety, it is often perceived as difficult to implement, when the required scientific and technical data is

lacking. In discussing with the Malian Food Safety Authority, FAO proposed a step-by-step approach to introduce and use risk analysis principles in the everyday practices of authorities, as well as other stakeholders such as scientists and researchers, producers and consumer associations. The identified priorities were taken as examples to develop more sophisticated steps of risk analysis (such as risk assessment). The training programme also served to better understand real food safety issues, identify control measures and include them, when relevant, in future data collection programmes to refine

the assessment and improve the targeting of control measures over time. Besides transmitting knowledge and skills, the project built a strong core group, who now better understand the need for and value of a multidisciplinary approach and collaboration to food-safety risk analysis. Having developed trust among its members, this core group now draws on all institutions that need to be involved in risk analysis at one stage or another and its members serve as champions in their institutions. They are taking steps to improve the data pool and their analysis of the food situation.

### TIMBER TRADE FROM INDONESIA



Indonesia supplies one-third of tropical timber imports by value to the European Union (EU), one of the world's largest consumers of timber products. Since 2013, the EU Timber Regulation has prohibited the

placement of illegal timber and timber products on the EU market. FAO is working with the EU, its member states and other international and local partners to help tropical timber-producing countries make legally-binding trade agreements with the EU. These agreements, known as Voluntary Partnership Agreements (VPAs), establish mechanisms to demonstrate the legality of timber produced in the country. Forest Law Enforcement, Governance and Trade (FLEGT) licensed timber automatically complies with the requirements of the timber regulation, creating a “green

lane” for timber entering the EU. In late 2016, Indonesia became the first country to issue a FLEGT license. Its local producers still needed support to comply with all its requirements. Therefore, FAO continues to provide financial and technical assistance to strengthen the legality of the national timber assurance system. This includes supporting the certification of community forests in East Kalimantan, and promoting group certification of furniture makers in Java and Bali so they will continue, and hopefully through the VPA, increase benefits from trade with the EU.

## TONGA

Vegetable market at  
Nuku'alofa, Tongatapu  
Island.  
©FAO/Anton Glaeser



### DEVELOPING THE NATIONAL FOOD CONTROL SYSTEM IN TONGA



The Kingdom of Tonga is located in the southern Pacific Ocean and comprises more than 170 islands. Food is of central importance for its population, for socio-cultural reasons, as a source of income for rural smallholders

and in terms of trade flows. The agricultural sector contributes around 30 percent to Tonga's GDP and agricultural exports make up two-thirds of total exports. Food imports represent approximately 30 percent of all imports (based on value). Given its importance, the Ministry of Agriculture added the specific portfolio of food to its core business. However, until recently no specific national legislation existed to regulate the safety and quality of food. With the support of FAO a new Food Act was developed and passed in late 2014 and Codex-based food standards were also developed across the archipelago. At the same time, a

national food regulatory system is being built to implement and enforce the Food Act. This regulatory system will include means to enhance inter-agency coordination and cooperation, strengthen food inspection and certification capacity, setting up of food emergency management protocols and strengthen capacity of value chain operators to comply with food safety and quality requirements. The improved capacity is expected to raise the safety and quality of food and agricultural products and thus safeguard the health of consumers and enhance fair trade opportunities.



## GEORGIA

Circle maritime nets used to catch high-quality anchovies on the Black Sea port of Poti.  
©FAO/Ruggero Urbani

## HELPING TO BOOST TRADE IN GEORGIA

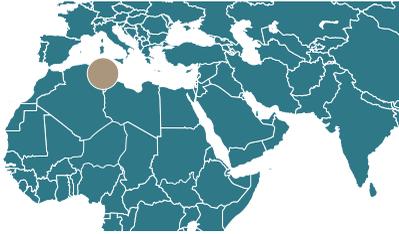


This small country in the Caucasus enjoys significant fish resources. Along its Black Sea coastline, annual catch of anchovies totals

60 000 metric tonnes. Most of that is sold fresh to neighbouring countries or processed into fish meal and oil. Georgia would like to be able to export directly to the world's largest fish importing market, the European Union (EU), to earn higher revenues, but it does not yet meet a number of EU criteria for fish inspection, certification, laboratories and related legislation. FAO is providing support to Georgia, assessing its landing sites, factories and fish markets with an

eye to meeting EU requirements, training its fish inspectors and, alongside Georgia's National Food Agency, reviewing all aspects of EU regulations on traceability and labelling, including checklists to be completed at each inspection. This important work in partnership with the Georgian government will help build capacity for Georgia's fisheries production and provide the country with greater trade opportunities and revenues in the future.

## STRENGTHENING TUNISIA'S OLIVE OIL VALUE CHAIN

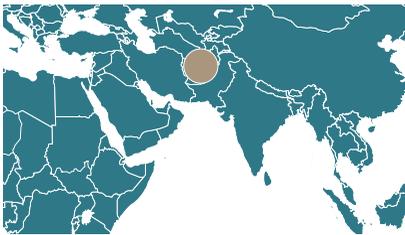


In 2014, FAO and the European Bank for Reconstruction and Development (EBRD) produced a review of the olive oil sector in Tunisia. In order to help the sector

realise its potential, actors from all along the olive oil value chain and the government were invited to join a working group. The working group has provided a forum where the private sector and government have been working together to improve policy and build a common vision of the sector's future. The review also identified areas where technical assistance could make a difference: delivering training to improve farmers' practices, and assisting with the adoption of standards and capacity development work on product

quality. These combined strands have helped to address questions of how to deepen agricultural market integration, improve quality and efficiency, and provide support for a greater role for the private sector in the olive oil sector. A second phase of the project is consolidating the platform through policy dialogue and contributing towards the national olive oil strategy, preparing the groundwork for improved linkages throughout the entire value chain and supporting the implementation of the refined national strategy.

## SUPPORTING DAIRY INDUSTRY DEVELOPMENT IN AFGHANISTAN



Over the years, in collaboration with the Afghan Ministry of Agriculture, Irrigation and Livestock, IFAD, FAO have supported smallholder dairy development in Afghanistan. Its integrated dairy value chain approach emphasises the tremendous potential of the milk sector to promote economic development and livelihood improvement among poor farming families. Over

4 500 dairy farming households have benefited from integrated services and inputs such as feed and fodder production, trainings in animal health and husbandry, vaccinations, treatments, dewormings and breed improvement programmes, and the establishment of Milk Collection and Milk Chilling centres. Typically, each farmer now markets a milk surplus and earns a significant additional income at regular intervals throughout the year. This has also contributed to lessen the reliance on imports of dairy products that increased significantly, since 2010. The work of FAO places special emphasis on women, who retain and decide on the spending of over 80 percent of the income earned from milk sales. Efforts are ongoing to strengthen capacities of public institutions to promote and regulate the dairy sector.

**FAO PROVIDES ASSISTANCE AND CAPACITY BUILDING TO COUNTRIES TO ACCESS INTERNATIONAL MARKETS, AND TO MEET INTERNATIONAL STANDARDS FOR FOOD SAFETY, PLANT HEALTH AND ANIMAL HEALTH.**

## ACCESS TO FINANCE IN LATIN AMERICA AND THE CARRIBBEAN



Good policy practices for inclusive rural and agricultural finance gathered by FAO and key partners

(IFAD, World Bank, GIZ, UNCDF, and Rabobank) have been included into a state-of-the-art capacity development programme targeting field practitioners like producer organizations, financial institutions, government agencies and private agribusiness firms, so that they are able to mainstream these practices in their daily operations. Results have been outstanding with 29 institutions from 12 countries in Latin America – Barbados, Bolivia, Brazil, Costa Rica, Ecuador, Guatemala, Honduras,

Mexico, Nicaragua, Panama, Paraguay and Peru – participating in trainings delivered by FAO during 2014-15. Outcomes include improved ability of smallholder families and small and medium agribusinesses to access a wide set of financial services from institutions that have the ability to assess and respond to their needs in a sustainable way. Several follow-up initiatives with local partners have been generated after these trainings, including Agrobanco from Peru, and FIRA from Mexico.

## SIMPLE TECHNOLOGY CURBS FISH LOSSES IN BURUNDI



Women on the shores of Burundi's Lake Tanganyika dry catches of small sardine-like silver lake fish called ndagala, which are then sold at the market. Ndagala is a tiny fish eaten whole, thus containing higher levels of protein, nutrients and calcium. Following tradition, the women would dry the fish on the sandy lake shores. Unfortunately, this method, in addition to being unhygienic, led to high-levels of post-harvest losses due to its

slow drying time and possible contamination on the ground. The ground-dried fish were also carried off by animals or swept away during the rainy season. In total, it was estimated that about 15 percent of the catch was lost during the drying process. FAO worked with the driers to develop simple, one-meter high drying racks constructed by the local population. With the new racks, drying time reduced from three days to only eight hours. The rack-dried fish are out of reach of animals, and can be covered when it rains, preventing spoilage. Rack drying also produced a better tasting final product, free from small gravel and pebbles commonly found in the beach-dried fish. The better quality fish enjoys a longer shelf life, allowing the fish to be transported to regional markets. In addition, the women fish driers

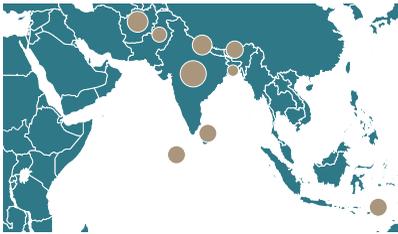
have seen prices for their dried fish more than double, which, combined with the lower levels of losses, means more income for the families of Lake Tanganyika fish driers.



**PAKISTAN**

Porters moving bananas from a warehouse for sale at a market in Islamabad. ©FAO/Farooq Naeem

**TACKLING POST-HARVEST FRUIT AND VEGETABLE LOSSES IN ASIA**



The agriculture sector is critically important for Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri

Lanka and Timor-Leste, particularly in improving food security and nutrition outcomes. Within this context, foods that are rich in micronutrients, such as fruits and vegetables, are of critical importance. However, post-harvest losses in these sectors are high largely resulting from improper handling, transportation and packaging, poor storage and generally weak infrastructure. Limited awareness and knowledge of stakeholders also contribute to these losses. In these countries, FAO piloted good post-harvest management practices

to improve quality, assure safety and reduce losses in prioritised traditional fruit and vegetable supply chains. Core capacities were created among experts, trainers and value chain stakeholders in good post-harvest management practices and improved technologies. Market surveys were conducted in priority supply chains to identify major bottlenecks that contribute to losses and more than 200 stakeholders and 50 trainers from Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Sri Lanka and Timor-Leste have been trained.

## PROMOTING AGRIBUSINESS INVESTMENTS IN THE COOK ISLANDS AND SAMOA



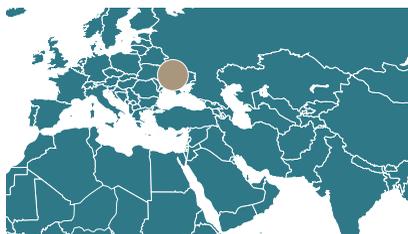
In the Pacific Islands, farmers and fishers' export competitiveness is declining and the Islands depend increasingly on imported food. In this context, improving the

capacity of the local agricultural sectors to meet the domestic food needs has become a priority. FAO is committed to strengthen the capacity of local food producers and businesses to deliver food of high nutritional value to domestic markets. This includes also strengthening the local capacity to mobilize investments in efficient agrifood chains.

FAO provided support to stimulate new investments in agribusiness in two small-scale economies and Small Island and Developing States (SIDS). In the Cook Islands, FAO facilitated the creation of

eleven agribusinesses through a small matching grants facility and the strengthening of 24 agribusiness through mentoring and training. In addition, three youth groups were trained on business and were awarded with further grants by the Bank of Cook Islands, an FAO partner for the project. In Samoa, FAO strengthened the capacities of local financial services providers, agribusinesses, farmers groups and public sector officials on agricultural finance markets assessment, alternative collateral based lending, contract farming and value-chain finance.

## PROMOTING AGRICULTURAL INVESTMENT AND TRADE IN UKRAINE



Although Ukraine has a strong dairy sector, its dairy farms are small and have difficulties in delivering milk that meets quality standards. These factors limit the sector's development. The loss of the Russian market for Ukrainian milk exports introduced an additional challenge to the industry, which was forced to seek new export opportunities.

In 2013, FAO and the European Bank for Reconstruction and Development (EBRD) teamed up to launch the "Public-private policy dialogue in the Ukrainian dairy sector" project. A Dairy Working Group was established, gathering leading milk producers and processors, dairy industry associations, scientists, and government representatives to find ways to develop the sector. Collaboration increased and new trade partners were identified. As a result, milk producers and dairy processors attended international fairs, and new quality standards were introduced into national legislation.

Ground-breaking results included China and EU opening their markets to Ukraine's dairy products. The emergence of a stable policy environment also

encouraged EBRD to scale up investment to modernize the sector.

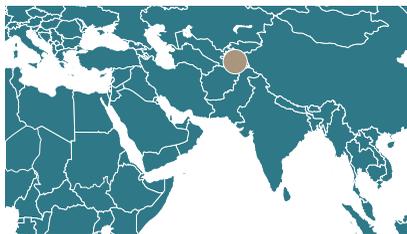
With this collaborative spirit, Ukraine's dairy value chain is on its way towards a more inclusive and efficient model, engaging farmers and industry representatives in important policy decisions.



## TAJIKISTAN

FAO and EBRD support rural women to ensure their fruits meet the safety and hygiene standards of domestic and foreign markets.  
©EBRD

## DEVELOPING MORE EFFICIENT FRESH PRODUCE SUPPLY CHAINS IN TAJIKISTAN



FAO and the European Bank for Reconstruction and Development (EBRD) are strengthening Tajikistan's fresh fruit and vegetable supply chains and broadening market opportunities for producers. Fruits and vegetables are a major source of

income for rural households in this mountainous country. Fresh produce, such as sweet cherries, onions and table grapes, makes up a sizable share of Tajikistan's agricultural exports. Nevertheless, the potential to supply domestic retail and export markets is largely untapped. Improvements could also advance earnings for farmers. While annual fruit and vegetable exports in neighbouring Uzbekistan pull in up to US\$500 million, Tajikistan's exports earn only about 10 percent of that amount. Inefficiencies along the supply chains mean that the availability and selection of fresh fruit and vegetables varies greatly, depending on

the season. Tajikistan has few cold storage facilities, and heavy winter snowfall often closes the roads connecting the capital with major producing areas. FAO and EBRD are working to provide better market information to Tajik producers, introducing new technologies and techniques, and improving current production, handling and packing practices that often lead to spoilage and decrease the value of their produce. Tajik producers are also being trained in how to meet standards as the country slowly moves from outdoor markets to more modern retail formats, such as supermarkets and hypermarkets.

## STRENGTHENING MALI'S NEW NATIONAL POLICY FOR FOOD SECURITY AND NUTRITION



Mali is among the most at-risk countries to food crises caused by climate change, drought and domestic conflicts. The FAO Monitoring and Analyzing Food and Agricultural Policies

(MAFAP) programme contributes to the formulation of a new national policy for food security and nutrition. When completed, this new policy, which is under the coordination of the Office for Food Security, will provide a ten-year strategy for food security. Specifically, its objective is to strengthen the resilience and coordination within the country in the fight against hunger. Through MAFAP, FAO supports the formulation of the policy to strengthen the country's agricultural competitiveness and resilience to shocks on two major aspects, namely a reduced impact of road harassment on food prices

and more efficient public stocks of staple foods such as rice, millet and sorghum. On these two aspects, FAO developed a set of evidence-based policy options to address systematic road harassment along agricultural transportation and marketing chains and to enhance the operations of Mali's food stocks. Together with the Government and in consultation with farmer associations, civil society groups and international donors, FAO successfully developed an approach that has resulted in a coherent and robust national policy, which provides a framework for a more food secure country.

## ENHANCING AGRICULTURE PUBLIC EXPENDITURES FOR FOOD SECURITY IN SENEGAL



Public investment in agriculture, health, education and other sectors play a key role in eradicating hunger. As part of a continuous effort to strengthen the efficiency and effectiveness of food and agricultural public expenditure in Africa, FAO collaborated with the Government of Senegal to

implement a system to better plan, track and allocate the government's spending that contributes to food security in the country. Through the Monitoring and Analyzing Food and Agricultural Policies (MAFAP) programme, FAO works alongside the Government of Senegal to harmonise national public expenditure for food security and nutrition.

FAO developed an innovative set of expenditure tracking tools that allow the Ministry of Finance to monitor Senegal's public spending more effectively. Developed through an inclusive national consultation process, the tool allows the government and

development partners to increase the impact of policies using disaggregated information on the composition and level of public expenditures.

As a three-year programming tool, it will improve national coordination and allow relevant line ministries and public bodies to better mobilize resources for programs, projects and initiatives for the eradication of hunger in Senegal.



## MALI

A new national policy for food security and nutrition ensures more efficient stocks of staple foods, including sorghum.  
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# THE STRATEGIC WORK OF FAO

The five key priorities or Strategic Objectives of FAO represent the main areas of our work to support member states in sustainably achieving a world without hunger, malnutrition and poverty.



Help eliminate hunger, food insecurity and malnutrition



Make agriculture, forestry and fisheries more productive and sustainable



Reduce rural poverty



Enable inclusive and efficient agricultural and food systems



Increase the resilience of livelihoods to threats and crises

To accomplish these objectives, FAO works through five Strategic Programmes, leveraging our technical leadership, while fully integrating gender, governance, nutrition and climate change impacts in all aspects of our work.

**We are committed to supporting countries in implementing the 2030 Agenda.**



Food and Agriculture  
Organization of the  
United Nations

**SUSTAINABLE  
DEVELOPMENT  
GOALS**

## FOOD and AGRICULTURE in the 2030 AGENDA

The 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development are a set of global priorities adopted by countries in September 2015 to end poverty and hunger, sustain the planet's natural resources and ensure prosperity for all.

Food and agriculture cut across all the SDGs and lie at the very heart of the 2030 Agenda.

With an integrated approach aimed at tackling the root causes of poverty and hunger, sustainable management of natural resources and leaving no one behind, **the strategic work of FAO is broadly aligned with the SDGs.**

Our wide-range of technical expertise, length of experience working with development partners and unique skills in the three dimensions of sustainable development (social, economic and environmental) qualify FAO as a valuable ally for countries in implementing and monitoring the SDGs.

To learn more, consult our webpage on the work of FAO in the SDGs. This page is continuously updated with all the latest developments in relation to food and agriculture in the 2030 Agenda.