

# Rural Development

## Food and Nutrition Security: Attaining the Sustainable Development Goal 2 of Zero Hunger



\*Of the 17 Sustainable Development Goals (SDGs), strongly associated goals are shown in color.

### Overview of the Issue

Global food production is greatly affected by climate and other natural environmental factors. In particular, food security in developing countries can be worsened in a lean year, causing heavy damage to the poor in urban areas and to smallholders and fishers in rural areas. Global food supply is supported by agriculture, the largest absorber of global employment, accounting for 40% of the working population. This sector also supports the employment and income of the poor in the developing world.

It is important to increase the agricultural productivity and income of the world's smallholders—who are estimated to number 475 million—and meet food demand in developing countries and the world as a whole. Attaining these goals requires disseminating improved varieties, introducing sustainable farming methods, and developing agricultural infrastructure as well as promoting the kind of agriculture that adds more value to agricultural products and better meets food safety needs.

A look at global food security shows that more than 800 million people still do not have sufficient access to food and nutrition. Regional disparities remain huge as well. Compounding the situation are natural hazards resulting from climate change. Going forward, boosting the production of staple grains requires further improving the productivity of farmland with irrigation facilities, among other means. Growing food demand means excessive fishing pressure, which, together with degraded ecosystems due to marine pollution and climate change, is reducing the reproduction capacity of fishery resources. The growing demand for livestock products highlights the need for disease control of animals.

### JICA Activities

JICA embraces the idea of food and nutrition security, a comprehensive concept that involves ensuring the stability of nutrition intake and food supply. With this concept in mind, JICA has recently been stepping up its efforts to achieve better food access and utilization, more stable food availability, and closer interrelationships among different approaches in agricultural and rural development. The idea is to help attain Goal 2, Zero Hunger, among the other Sustainable Development Goals (SDGs). Specific activities by JICA to this end include the following:

#### 1. Toward Economic Growth

JICA aims to achieve a stable food supply and increase the

incomes of producers. JICA's development cooperation to these ends is designed to (1) boost food productivity by developing agricultural infrastructure and improving crop production and farm management skills and (2) bolster the entire food value chains covering manufacturing and processing, distribution, and consumption. For Southeast Asian countries, special focus is placed on increasing the safety of agricultural produce and adding more value to it.

JICA has adopted the Smallholder Horticulture Empowerment and Promotion (SHEP) Approach in more than 23 countries, supporting about 3,000 agricultural administrators and extension workers and some 18,000 smallholders in fiscal 2017 alone. SHEP has been jointly developed by JICA and the Kenyan government through project implementation. JICA is also engaged in utilizing ICT and increasing partnership with the private sector and international organizations so that more smallholders will gain access to quality agricultural extension services.

#### 2. Human-Centered Development (Nutrition Improvement)

In August 2016, Japan's Prime Minister Shinzo Abe expressed Japan's commitment to the Initiative for Food and Nutrition Security in Africa (IFNA) at the Sixth Tokyo International Conference on African Development (TICAD VI). Under the IFNA, JICA contributes to nutrition improvement in Africa with a cross-sectoral approach that covers agricultural promotion, health, and education. In the process, JICA capitalizes on Japan's experiences in implementing livelihood improvement programs in particular.

JICA's activities during fiscal 2017 include launching a Group and Region Focus training course for government administrators from developing countries, as well as setting up a secretariat in Johannesburg, South Africa, in partnership with the Planning and Coordinating Agency of the New Partnership for Africa's Development (NEPAD) to start assistance in formulating national strategies.

JICA plans to further contribute to nutrition improvement in Africa with such means as the formulation and implementation of new technical cooperation projects and the dispatch of JICA volunteers.

#### 3. Peace, Stability, and Security

JICA's assistance in securing peace, stability, and security includes (1) enhancing the regional development model and promoting the wider application thereof in the implementation phase of the peace process in Colombia; (2) identifying the directions for assistance in agricultural and rural development in Iraq and designing such assistance; (3) extending assistance

in agricultural and rural development in Afghanistan; and (4) developing institutional capacity primarily in the agriculture sector in South Sudan.

#### 4. Responses to the Global Issue of Food Security

##### (1) Coalition for African Rice Development (CARD)

CARD's commitment to doubling rice production in Sub-Saharan Africa for a 10-year period ending in 2018, which was made at TICAD IV in 2008, is expected to be fulfilled due in large part to JICA's technical cooperation and financial assistance to participating countries and coordination with international organizations [ → see the Case Study below]. Nevertheless, the supply-demand gap for rice has remained wide in Africa. A number of African countries have asked JICA to continue its commitment to boosting rice production in 2019 and onward.

Fact-finding surveys and consultations with the international organizations concerned during fiscal 2017 have led to the planned launch of CARD Phase 2. In Phase 2, focus will be placed on encouraging stable rice production in view of climate change, improving the quality of rice produced in Africa, and developing the rice industry in partnership with private businesses of Japan and other countries.

##### (2) Resilience to Climate Change

JICA extends assistance primarily to drought-hit areas with a focus on developing irrigation facilities, organizing water users' associations, developing rice varieties tolerant to adverse climate conditions, and strengthening agricultural extension services. In Indonesia and Ethiopia, JICA works with insurance companies based in Japan and developing countries to support the introduction of index-based weather insurance, an agricultural insurance scheme that allows for prompt insurance payment without the assessment of actual damages on production.

##### (3) Sustainable Management of Fishery Resources and Promotion of Aquaculture

In fiscal 2017, the fisheries co-management approach, good practices formulated through a JICA project in six Caribbean



Uganda: A local farmer and a Japan Overseas Cooperation Volunteer on a NERICA rice farm before harvest [photo by Koji Sato]

countries, was shared by the member states of the Caribbean Community (CARICOM).

Amid growing need for aquaculture in Africa as an effective means of import substitution and nutrition improvement, the farmer-to-farmer extension approach for inland aquaculture proved successful in Benin. This approach was disseminated to neighboring countries through such channels as JICA's region-wide training programs.

##### (4) Livestock and Animal Health

JICA extends assistance in livestock and animal health to Mongolia and Kyrgyzstan. This assistance is designed to support the veterinarians with a veterinary education system that complies with international standards as well as better training for the veterinarians in service. It is also aimed at supporting the development of food value chains, including improved health and hygiene management, with a view to promoting intra-regional trade in milk and dairy products. For Myanmar, JICA is making preparations for a project aimed at controlling foot-and-mouth disease in cooperation with international organizations.

#### Madagascar: Project for Rice Productivity Improvement and Management of Watershed and Irrigated Area (PAPRIZ Phase 2)

### Technology Extension to More Rice Farmers



Local farmers rejoicing at the rice harvest

Madagascar produces and consumes more rice than any country in Africa. Per capita annual consumption amounts to 145 kg, far exceeding that of Japan. The acreage under rice cultivation accounts for some 40% of the country's total cultivated acreage. The problem is that the unit rice yield is less than three tons per hectare on average.

This project is thus designed to boost rice productivity in the target areas by training technical officials at Madagascar's Ministry of Agriculture as extension personnel who will teach rice farmers cultivation techniques that accommodate their capabilities.

Farmers in the target areas receive training in rice cultivation techniques and watershed management. The project proposes the use of a starter kit designed to support the Ministry of Agriculture's policy to spread such cultivation techniques across the country.

This kit, manufactured on an experimental basis in cooperation with a private business, contains quality seeds and fertilizers for 10 ares as well as a technical brochure, attracting high expectations from local farmers.