

# Rural Development

## Food and Nutrition Security: A Healthy Life for All



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



Uganda: Extension workers practice vegetable harvesting on a demonstration vegetable farm at the Northern Uganda Farmers' Livelihood Improvement Project

### Sectoral Issues

- Malnutrition in infancy undermines physical and cognitive capacities and, by extension, causes economic losses to individuals and states. Agricultural and rural development has a crucial role to play in nutrition improvement.
- Natural disasters aggravated by climate change are causing both food insecurity and economic losses.

### Fiscal 2016 Initiatives

- JICA and the New Partnership for Africa's Development jointly launched a multi-sectoral initiative called the Initiative for Food and Nutrition Security in Africa (IFNA) for the continent, where the number of undernourished people is on the rise.
- JICA provided assistance for climate-smart agriculture and agriculture insurance as part of its efforts to minimize risks associated with climate change and natural disasters, and thus enhance resilience to these risks.

### Future Cooperation

- The ultimate goal of food security is to ensure an active and healthy life for all. JICA's assistance in agricultural and rural development will comprehensively address food production, access to food, utilization of food, and the stability of these three aspects.

### ● 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.

The environment surrounding agricultural and rural development has been diversifying because of factors such as the rapid advance of globalization, climate change, increased food prices, changing food preferences as personal incomes rise, the expanding participation of the private sector, and global competition for farmland. As in many developing countries, farmers account for the majority of the population, and three-fourths of impoverished people live in rural areas. Rural residents in developing countries are most easily affected by these changes.

Goal 2 of the Sustainable Development Goals (SDGs) is "Zero Hunger." Ensuring food security, or consistent provision of sufficient food, is the foundation for economic and social stability and an important policy issue.

### ● JICA Activities

#### 1. Activities for "Food and Nutrition Security"

The ultimate goal of JICA's assistance for agricultural and rural development in developing countries is to ensure a healthy

**JICA's Development Approaches to Food and Nutrition Security**

Four dimensions of food security	Food availability	Food accessibility	Food utilization	Stability
Development approaches (1)–(4) (5) Promoting rural development (common denominator)	(1) Fostering sustainable productivity growth and reducing food losses	(2) Improving food access and strengthening food value chains	(3) Diversifying diet and improving nutrition	(4) Strengthening resilience
(6) Utilizing Japan's expertise and experience (common denominator)	Breeding, cultivation techniques, the Land Improvement District System, aquaculture techniques, etc.	Food safety system One Village, One Product Movement Crop diversification assistance	Livelihood Improvement Program, MHC Handbook, school meals, dietary education, nutritionist certification system	Reservoir construction, extension services based on weather forecasts
Measures for cooperation	Integrated agricultural development programs Rice cultivation (CARD <sup>1</sup> ) Irrigation Freshwater aquaculture Post-harvest processing	Capacity development for smallholders (SHEP <sup>2</sup> ) More value-added products Distribution and certification systems Agrochemical surveillance	Kitchen gardening Dietary education Maternal and child health Gender mainstreaming (IFNA <sup>3</sup> )	Drought control Water-saving irrigation Weather insurance

life for all. According to the 1996 World Food Summit, food security “exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” Focusing primarily on food production, JICA's traditional approaches to agricultural and rural development were not comprehensive enough to achieve this goal.

Hence, JICA has recently adopted the idea of “food and nutrition security,” a comprehensive concept that involves ensuring the stability of nutrition intake and food supply. To achieve food security and nutrition improvement, JICA is stepping up its efforts to achieve better food access and utilization, more stable food availability, and closer inter-relationships among different approaches in agricultural and rural development. JICA aims to improve food and nutrition security in rural areas through multi-sectoral collaboration involving agriculture, education, and water and sanitation sectors in addition to the health sector in which JICA has traditionally been working for nutrition improvement.

## 2. Development Approaches to Food and Nutrition Security

JICA has identified the following six approaches as its development approaches to food and nutrition security in view of the four dimensions of food security as identified by the Food and Agriculture Organization of the United Nations (FAO)—(1) to (4) below—and by adding two cross-sectoral approaches thereto: (5) rural development, and (6) utilization of Japan's expertise and experience [→ see the table above].

### (1) Fostering sustainable productivity growth and reducing food losses: Food availability

By increasing productivity with focus on areas suitable for agricultural development, JICA works to boost food supply in a sustainable manner while reducing environmental impacts. JICA also makes efforts to increase food supply by reducing food losses.

### Specific activities with this approach:

- In Africa, JICA has been supporting productivity growth with farmland development and other means, with primary focus on CARD<sup>1</sup> and ProSAVANA-JBM.<sup>4</sup> In Asia, JICA focuses primarily on improving the productivity of the existing farmland through irrigation development and technical guidance.
- For improved productivity, JICA incorporates measures designed to make sustainable use of land, water, and biological resources, all of which are only finitely available.
- JICA seeks ways to reduce food losses.

### (2) Improving food access and strengthening food value chains: Food accessibility

To make safe and nutritious agricultural produce and food more accessible, JICA encourages improved farm management and food processing that better meet market needs and help expand the safety net for the vulnerable.

### Specific activities with this approach:

- JICA works on improving physical access through the development of distribution infrastructure, including roads, post-harvest processing and storage facilities, and market places.
- JICA helps improve the livelihoods of smallholders and provide better access to food through commercialization support for smallholders. This support includes SHEP<sup>2</sup> in Africa, as well as the One Village, One Product Movement, horticultural crop support, and other programs in other regions.

1. The Coalition for African Rice Development. This initiative was launched at the Fourth Tokyo International Conference on African Development (TICAD IV) in 2008 to boost rice production in Africa. It aims to double rice production in Sub-Saharan Africa for a period of 10 years up to 2018.

2. Smallholder Horticulture Empowerment and Promotion. This extension approach is designed to generate motivation in each farmer and encourage self-help efforts toward further growth while aiming to increase income from agriculture as a business.

3. The Initiative for Food and Nutrition Security in Africa. This initiative was launched at TICAD VI in 2016 for improved nutrition in Africa. It is aimed at supporting nutrition improvement until 2025 by encouraging participating African countries to implement practical activities for improving the nutritional status in Africa based on their policies.

4. Triangular Cooperation for Agricultural Development of the Tropical Savannah in Mozambique. This program also involves Japan and Brazil.

- JICA also focuses on public-private partnerships to support the development of food value chains by taking advantage of Japan's strengths—particularly special attention to high quality, health, and safety—with a view to assisting Japan's food industries to work in overseas markets and supporting the economic growth of developing countries [[→ see the Case Study below](#)].

### Ethiopia: The Project for Strengthening of Agricultural Pesticide Residue Analysis System



## Toward Exporting Safe and Secure Coffee Beans

In this project, JICA focused on strengthening the system for pesticide residue analysis of Ethiopian coffee beans for export and on improving the analytical techniques for the staff of a testing laboratory.

Coffee is a key export crop for Ethiopia. The country has traditionally been one of the top coffee exporters to Japan. In 2008, however, exports of Ethiopian coffee beans to Japan plummeted after they were repeatedly found to contain pesticide residue that exceeded the maximum residue limits. This affected the Ethiopian economy significantly.

This incident prompted the Ethiopian Ministry of Agriculture to establish the Quality Monitoring and Pesticide Testing Laboratory (QMPTL) designed to ensure the safety of agricultural products. The problem, however, was the lack of personnel capable of using equipment necessary for pesticide residue analysis. This was where this project came into play. The project involved sending Japanese experts to Ethiopia and inviting some of the QMPTL staff members to Japan for training. JICA communicated to the staff at QMPTL analytical techniques for pesticide residue as well as basic knowledge and skills for managing the laboratory.

These project activities have put in place a system for pesticide residue analysis in coffee beans to be exported to Japan and for issuing export permits for those whose pesticide residues are found to be below the maximum limits. The newly acquired capacity to determine the safety of coffee beans for Japan is expected to boost exports of this Ethiopian product to Japan.



A QMPTL staffer learns analytical techniques. (Photo by Takeshi Kuno)

### (3) Diversifying diet and improving nutrition: Food utilization

At the community level, interventions that involve multiple sectors (agriculture, health, education, water and sanitation, etc.) are particularly important for nutrition improvement. JICA is engaged in diversification and quality improvement of diet through kitchen gardening, dietary education, and school meals. It is also engaged in awareness-raising activities taking into consideration local customs and gender through livelihood improvement programs.

#### Specific activities with this approach:

- JICA is engaged in activities revolving around the Initiative for Food and Nutrition Security in Africa (IFNA)<sup>3</sup> [[→ see the Case Study on page 75](#)]. IFNA is aimed at accelerating actions designed to improve food and nutrition in Africa for a period of 10 years up to 2025. Initial activities under IFNA have already been launched in 10 countries in view of the nutritional status and past related activities in these countries.

### (4) Strengthening resilience: Stability

With a focus on people exposed to vulnerable natural environments and social conditions, JICA is working on the following activities with the dual purpose of building disaster-resistant agricultural systems and developing safety nets that support quick recovery.

#### Specific activities with this approach:

- JICA focuses primarily on regions—the Middle East, Africa, and South Asia—that are particularly exposed to weather hazards, conflicts, and external shocks associated with fluctuating international prices and other factors.
- JICA is assisting countries in these regions in strengthening their resistance to environmental stress with an optimal combination of two types of components in light of local natural conditions. The first type is designed to improve access to water resources with the development of small-scale infrastructure, including reservoir construction and water harvesting. The second type is designed to introduce cultivation techniques that are highly resistant to environmental stress, including drought-tolerant varieties, water-saving irrigation, mulching, deep plowing, and no-till farming.
- JICA is supporting quick recovery—from weather hazards and other stresses through such means as compensation for losses through income insurance or weather index insurance for farmers, financing for business recovery with a micro-credit scheme, and coordination with food assistance programs by governments.

### (5) Promoting rural development

Stable development of rural areas is important both from the perspective of national food security and in the context of narrowing the livelihood gap between urban and rural areas. JICA assists the diversification of industries and the development of local specialties with the effective use of local resources as well as the development of community infrastructure. In this way, JICA supports balanced rural development and training people who support rural communities.

**Cross-sectoral activities with this approach:**

- In light of the experiences of Japan and other developed countries, and based on adequate understanding of the local situations, JICA supports developing countries with a cross-sectoral combination of the following measures, as appropriate:
  - (i) Diversifying rural industries: promoting non-agricultural industries in rural areas, such as a shift from mere agricultural production to food-related industries, including processing and food-service industries and the distribution industry; and tourism that capitalizes on local resources.
  - (ii) Improving the rural living environment: improving community infrastructure that is less developed than in urban areas, such as the development of farm roads, water supply facilities, etc.
  - (iii) Shifting to more profitable farming that capitalizes on local resources: strengthening value chains through approaches involving the One Village, One Product Movement and "Roadside Stations."

**(6) Utilizing Japan's expertise and experiences**

JICA supports state building by sharing Japan's experiences in relevant fields—overcoming food shortages following the end of World War II, subsequently improving the nutritional balance, and carrying out rural development amid growing gaps between urban and rural areas—at all levels, including researchers and government administrators in developing countries.

**Cross-sectoral activities with this approach:**

- Japan's agriculture has undergone a series of developments, including food shortages during and after World War II, a rapid improvement in productivity during the period of rapid economic growth, faltering demand for agricultural produce associated with market maturation, and growing disparities between urban and rural areas. These developments are common to the process of agricultural development in many countries, especially in those in Southeast Asia. Japan's experiences, technologies, and policies in agriculture can contribute to many countries in different stages of development.
- Also Japan's experiences in non-agricultural fields, including the Livelihood Improvement Program, school meals and dietary education, the nutritionist certification system, the Maternal and Child Health (MHC) Handbook, improved health services, and safe water supply could be of potential help to nutrition improvement in developing countries.
- JICA is now working to take advantage of all these experiences. Specifically, JICA is making effective use of training programs that offer opportunities to study in Japan as well as various people-to-people exchange programs to share these experiences with people at all levels, including researchers and government administrators, so that they can put these experiences to good use for their state-building efforts.

It may be worth adding that agricultural and rural development

helps to achieve not only the SDGs' Goal 2 (Zero Hunger) but also many other goals, including Goal 1 (No Poverty), Goal 5 (Gender Equality), Goal 12 (Responsible Consumption and Production)—especially the third target of reducing food losses—and Goal 14 (Life Below Water).

Case Study

**Sub-Saharan Africa:  
Initiative for Food and  
Nutrition Security in Africa (IFNA)**

**Closer Cooperation with Partners  
Bolsters Efforts to Address  
Nutrition Problems in Africa**

JICA and other international organizations jointly launched the Initiative for Food and Nutrition Security in Africa (IFNA) at TICAD VI, held in the Kenyan capital city of Nairobi. IFNA encourages participating countries to take specific actions on the ground with an approach that transcends the borders of various sectors, including agriculture, health, education, water, and sanitation. For a period of 10 years up to 2025, IFNA supports these countries in achieving nutrition improvement targets. Initial priority is given to 10 countries: Burkina Faso, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Senegal, and Sudan.

Characteristically, IFNA stresses four aspects: (1) accelerating human-centered practical activities; (2) encouraging coordination among various sectors and stakeholders for greater synergy; (3) enhancing the sustainability of nutrition improvement and the resilience of communities; and (4) taking a more evidence-based approach. Specific activities could be:

- IFNA accumulates good practices that lead to nutrition improvement and can be shared and learned by participating countries and organizations for more effective outputs.
- JICA supports the management of the IFNA Secretariat at the Planning and Coordinating Agency of the New Partnership for Africa's Development (NEPAD Agency), as well as enhancing its contribution to nutrition improvement that focuses on food and agriculture within a multi-sectoral approach. JICA also strengthens the network of JICA volunteers and experts who are interested in nutrition improvement to promote "nutrition improvement partners" for sharing experiences in the field.



A workshop for making an in-season foodstuffs calendar