The world’s population rapidly increased in the latter half of the 20th century, and it exceeds six billion today. According to one forecast, it will reach nine billion by 2050. A major concern is that various problems, such as food shortages and environmental deterioration due to heavy consumption of resources on a global scale, will become more serious.

Since the population increase is especially notable in developing countries, appropriate development in these countries is essential in order to stabilize people’s living situations worldwide.

Most people in developing countries live in rural areas, and their living situations are deteriorating due to problems such as overcultivation, overgrazing, deforestation, subsequent depletion of water resources, a drop in agricultural productivity caused by many reasons including such as soil erosion, and insufficient social services such as health and basic education. Additionally, the disparities in the living standards between the urban area and the rural area generate new problems such as a population influx into the urban area and slum formation.

To bring about better living situations, it is necessary to promote comprehensive agricultural and rural development focusing on the lives of residents in rural areas. This should be associated with proper attention to harmony with the environment and the relationship with the urban areas so that limited resources in rural areas can be continuously utilized. It is also necessary to tackle certain issues regionwide, involving all neighboring countries concerned. These issues include avian flu, which causes economic and health damage not only for farmers in the affected area, but also to other people within the country as well as in surrounding countries.

Actively addressing these issues is in line with coordinated actions to achieve the UN Millennium Development Goals (MDGs). The MDGs clearly specify strengthening support for the poverty groups from the perspectives of human security and more stable development of the international community.

Agricultural and rural development also gains attention as a priority field in post-conflict rural reconstruction. Specifically, there are activities such as stable food supply, and the promotion of settlement of refugees and ex-combatants. To respond to the recent focus on poverty reduction, peacebuilding, and human security, the roles expected of agricultural and rural development are getting larger.

To address these issues, JICA has identified three sectors (poverty reduction, agricultural and rural development, and fisheries), and is implementing relevant projects for each sector.

**Overview of the Rural Development Field**

Poverty reduction is a primary global common objective and advocated in the MDGs. The term “poverty reduction” means not simply increasing income levels but rather creating conditions in which all humans lead healthy and creative lives with sufficient food, shelter, and clothing. It also means that being free from unfair treatment by the government and the community, they can participate in society with freedom, dignity, and self-esteem.

Poverty has many dimensions. It can cause environmental degradation, and a poor environment in turn can aggravate poverty, thus giving rise to a vicious cycle. “DAC Guidelines on Poverty Reduction” published in 2001 defines poverty as the insufficiency in political, socio-cultural, economic, human, and protective capabilities. It is internationally agreed that poverty reduction requires a comprehensive approach that will develop capabilities in these five areas.

It is also important to consider the fact that a lack of capabilities among the poor is not the primary cause of poverty; environments disadvantageous to the poor and social structures, in which vested interests, discrimination, etc., create socially vulnerable people, interactively cause and fix poverty. To reduce poverty, it is important to create opportunities for the poor to demonstrate their potential capabilities by changing the environments that surround them and by breaking the vicious cycle of poverty.

**JICA’s Efforts**

Definition of Poverty and the Goals in Support for Poverty Reduction

JICA defines poverty as a condition in which people are deprived of their opportunities to demonstrate potential capabilities required to lead a basic human life and are being left out of society and the development processes. JICA has two overall goals in its support for poverty reduction: enhancement of the potential capabilities of the poor; and reform of the social struc-
Poverty Reduction Assistance

1) Policy and system support at a national level (macro level)
   Facilitate economic policies benefiting the poor and systems and policies reflecting the needs of the poor

2) Maintaining and generating the incomes of the poor (economic capability)
   Assistance targeting the most vulnerable group of the poor
   Targets include ethnic minority groups, landless farmers, patients with HIV/AIDS, refugees and internally displaced persons, female-headed families, the elderly and the disabled, etc.

3) Direct aid to the poor (micro level)
   The structures and other factors leading to poverty and the actual conditions in which the poor live are varied and complex, differing from country to country and from region to region. JICA consequently formulates its poverty-reduction support policies on a country-by-country and region-by-region basis. JICA is also addressing the issue by taking full advantage of the unique features of each aid scheme and by combining various individual projects in ways that give rise to synergy.

Target Levels of Poverty Reduction Assistance and Multi-layer Cooperation Approach

JICA provides poverty reduction support at three levels: 1) policy and system support at a national level (macro level), 2) support through local communities (mezzo level), and 3) direct aid to the poor (micro level). Through these channels, JICA effectively carries out assistance for capability enhancement of the poor, as well as for improving social structures, policies and systems involving the poor. And at the same time, JICA intends to strengthen capability of the poor by embracing the three levels: macro, mezzo, and micro.

Figure 3-8 summarizes these three levels of assistance targets. As shown in Figure 3-9, a more effective approach (multi-layer cooperation approach) is being planned by linking multiple levels of assistance targets.
The Participatory Rural Development Project in Bangladesh (Phase 2)

In Bangladesh, government services have not been effectively extended to rural people because of poor coordination among different government organizations and malfunctions in government systems to reflect their influence on those services. JICA has been, therefore, assisting the Bangladeshi government in changing this situation through the Participatory Rural Development Project Phase 2 since 2005. In this project, it is expected that rural people shall be able to identify their problems and find solutions independently, and that the government shall build a mechanism that will deliver the most appropriate services to people who are most in need.

Consequently, small-scale infrastructure projects including repair of village bridges, installation of hygienic toilets, etc., were carried out in Bangladesh through the initiative and participation of the local community. Instead of complete dependence on administrative services, voluntary activities at the village level based on initiatives of rural people are spreading; for example, those children who are absent from school were identified and some of them started to attend school after full discussion among teachers, parents, and project staff. In order to further spread this effort to other communities, JICA offers support for policy formulation at the national level and provides training for field administrative officers and local residents.

A government officer taking directly to representatives of local community groups.

Agricultural and Rural Development

Overview

In many developing countries, over half of the population is engaged in the agricultural sector, and a large share of the rural population lives in poverty. Because agriculture represents the core of the national economy in many of these countries, assistance for agricultural and rural development plays an important role in addressing such concerns as food security, poverty reduction, economic development.

The stable provision of food that people need (food security) is a fundamental condition of economic and political stability. In many developing countries, food shortages are impairing health and creating hunger. In some cases refugees in hunger flood into neighboring countries, disturbing the order of the international community and potentially leading to regional conflicts. In food-importing countries, the stable production and supply of food are economic issues of extreme importance, because they can reduce the outflow of foreign currency. Furthermore, stable food supply in developing countries is important from the standpoint of Japan’s own food security.

JICA’s Efforts

JICA perceives its two main tasks in agricultural and rural development to be: support for stable food production and supply (food security), and alleviation of poverty (rural development). Since these two tasks are intimately related, in order to implement effective cooperation, it is essential to understand their relationship and coordinate them. Specifically, there are measures designed to achieve food security from the macro (national) to micro (rural) levels on the one hand; and measures addressing various rural development issues at micro levels on the other.

Thus the objectives of assistance for agricultural and rural development are set out as follows:

1. To design and implement projects aimed at achieving food security and alleviating poverty.
2. To ensure that rural people and government officials are able to identify their problems and find solutions independently.
3. To improve the capacity of government and local community groups to implement development projects.
4. To promote the voluntary activities at the village level.

NERICA Draws Attention from the Viewpoints of Food Security and Livelihood Improvement of Farmers (Africa)

The West African Rice Development Association (WARDA) developed a cross-bred upland rice in 1994 by crossing high-yield Asian strains and desiccation- and disease-tolerant African strains. More breeds were subsequently developed partly due to cooperation from Japan, and they were collectively named New Rice for Africa (NERICA).

Recently, rice has been increasingly consumed in Africa, with the annual per capita consumption in sub-Saharan Africa being 23kg (60kg in Japan). However, domestic production is unable to keep up with the increase in consumption, and exports are rising, which puts pressure on the economies of those countries. Moreover, environmental conditions hinder an increase in domestic production: lack of land suitable for rice paddies and serious issues such as drought and damage by pests and diseases.

NERICA is a hybrid combining the strong characteristics of Asian and African rice variations. The harvest volume is high and it is resilient to drought and disease and can be grown uplands. Thus, the rice draws a lot of attention in many African countries where food security is a critical issue. However, the experience and technologies necessary for selecting a suitable variety for each country, research on farming conditions, and subsequent dissemination are in short supply.

Currently, NERICA experts dispatched to Benin and Uganda provide technical assistance including visits to neighboring countries. Dissemination activities of NERICA are carried out in cooperation with experts in agriculture and projects in individual countries. Further spread of NERICA cultivation is greatly expected from the perspective of not only food security, but also improving the livelihood of farmers.
tural and rural development are stable food supply for both the rural and urban populations, poverty reduction in rural areas, and national and regional economic development. In abstract terms, the ultimate goal is the eradication of hunger and poverty. Sustainable agricultural production is the basis for a stable food supply and poverty reduction in rural areas.

On the basis of these perspectives, JICA has identified the following three development strategies.

1) Sustainable agricultural production
   It is extremely important to realize sustainable agricultural production for eradicating hunger and enhancing the means of economic activities in rural areas as well as economic development in developing countries. It is also a precondition for providing a stable food supply to all regions including urban areas, and for building rural communities with vitality.

   As an approach for sustainable agricultural development, it is important to precisely understand the situation of the agricultural sector of the country at the macro level, and formulate and implement agricultural policies appropriate for the situation. It is also important to expand agricultural production and increase productivity while improving policies. In seeking acquisition of foreign currency and economic development by means of export promotion, it is necessary to strengthen related activities such as improvement of the export system and enhancement of competitiveness. Consideration for the environment is essential for maintaining agricultural production in the long-term. Additionally, in order to secure sustainable development of the overall agricultural sector for the future, human development is necessary through expanding education in agriculture and agricultural science at the high school, university, and graduate school levels.

2) Stable food supply
   To supply a sufficient amount of food to all citizens stably is one of the important objectives of agricultural and rural development. A large part of the population in rural areas is engaged in agriculture and is a supplier of domestic food especially for the urban areas with the greater concentration of population. However, they are also considered consumers of domestically distributed agricultural products.

   Stable food supply is possible only when a sufficient supply is secured at the macro level and fair distribution is in place at the micro level. In attempting to secure the food supply at the macro level, it is necessary for a government to evaluate the situation of the people and agricultural production potentials first, and then to formulate a strategy on how to secure food for its citizens. In the case that the required food cannot be secured within the country, it is necessary to develop a system to supplement the shortage with imports from other countries. On the other hand, to achieve fair distribution at the micro level, development of an efficient domestic distribution system is essential, which involves distribution over different regions.

3) Building rural communities with vitality
   Since the adoption of the MDGs, activities for poverty reduction in developing countries have gathered more attention than ever. Rural areas as targets of development and the significance of its roles are in the public limelight again. This comes from the recognition that the lives of the people in rural areas are destabilized by many factors including weak prices for agricultural products caused by political factors, deterioration of living and production environments due to progressing desertification, and increased dependence on urban areas as seen in labor migration.

   To eradicate rural hunger and poverty and build rural communities with vitality, various measures are necessary, such as improving agricultural productivity, promoting the use and sale of agricultural products, promoting diversified economic activities including handicraft production and small business, and developing rural infrastructure represented by community roads and secured drinking water. It is also important to empower rural residents through organizing groups and improving health and education.

   The relation of the above three development strategies is summarized as shown in Figure 3-10. In other words, agricultural development is aimed mainly at development strategy goal 2 with the basis of development strategy goal 1, and rural development is aimed at development strategy goal 3 while including development strategy goal 1.

   Furthermore, agricultural and rural development, which requires consideration of various factors such as history, culture, natural environment, and ethnicity in the area, must be addressed in line with the situation of the target area.

### Fisheries

**Overview**

Fishery resources are an important source of animal protein for human beings. According to statistics published by the Food and Agriculture Organization of the UN (FAO), on average developing countries depend on fishery products for nearly 20% of the intake of necessary animal protein of their populations. It is expected that by the year of 2050 the global population will have reached nine billion, and in order to provide a stable food supply for future generations, sustainable management and utilization of fishery resources is vital. On the other hand, about 180 million...
people are engaged in fisheries worldwide, and it is clear that the industry is very important, not only in the context of food supply but also from the viewpoint of employment opportunities and as a source of cash income as well as means to earn foreign currency. The number of people engaged in fisheries is growing year by year, and particularly in developing countries, the industry, including fishery processing, is expected to be one which will enable women to play a more prominent role in society.

Fishery resources can reproduce themselves naturally. This makes sustained fishing possible, provided that the resources are managed properly. In developing countries, however, fishery development is taking place in a disorderly manner, leading to their depletion or exhaustion. The reduction of fishery resources has a significant effect on the livelihoods of people in developing countries who depend largely on fishery products for their animal protein requirements. The decrease of fishery resources has also aggravated poverty. In developing countries where worsening economic conditions and civil conflicts have led to a rise in unemployment, unemployed people sometimes move to and concentrate on the coast to survive, resulting in depletion or exhaustion of shellfish and shrimps. These circumstances lead to a further depletion of fishery resources. A framework for a proper management of fishery resources that enables their sustainable utilization is required on a global scale.

**JICA’s Efforts**

Under such situations, JICA conducts cooperation activities in accordance with the following four development strategies.

1) **Effective utilization of fishery resources**

It is necessary to create a fisheries infrastructure and improve fishing gear and methods so as to avoid catching fry (which would become a resource only later) with the aim of effectively utilizing fishery resources on a sustainable scale. Processing and quality-assurance technology must also be improved to enhance the safety of fishery products as food and at the same time promote the effective use of underutilized resources by raising the utilization ratio after catching or creating new values. Simple aquaculture as a stable source of animal protein also needs to be promoted.

2) **Conservation and management of fishery resources**

In order to prevent the exhaustion of fishery resources and carry out fishing activities continuously, it is necessary to develop appropriate fishing methods based on an accurate knowledge of the state of resources. In addition, steps must also be taken proactively to repair and maintain environments suitable for the
nursing and spawning of various species of fish. Releasing artificially produced fry is also an effective means of promoting resource enhancement.

3) Poverty reduction in fishing communities

In order to raise the living standards of those engaged in fisheries and revitalize fishing villages, JICA works on organizing fishing groups, promoting cooperative operations, and establishing resource-management framework led by local residents. JICA will promote diversification of fishing households’ incomes in addition to the cooperative operations, and also add value to their products with the introduction of simple processing technology and promote extensive fish farming when necessary.

4) Capacity development

In order to realize sustainable utilization of fishery resources, it is important to improve laws and regulations, administration measures and systems, activities at community level, and awareness of individuals, in addition to fishery, processing, aquaculture, and surveys of fishery resources.

JICA makes efforts to improve their problem-solving capacity and develop human resources so that the systems, society, organization, and individuals can play their own roles independently or jointly.

Local people who participated in a workshop hosted by JICA [Vanuatu]

Project for Promotion of the Grace of the Sea in Coastal Villages in Vanuatu

The Project for Promotion of the Grace of the Sea in Coastal Villages is a three-year project that was launched in Vanuatu in March 2006. Targeting subsistence fishermen who depend on coastal marine resources such as shellfish, sea cucumbers and the like, the project provides guidance on appropriate management method of resources, with the purpose of recovering resources and establishing a participatory coastal resource management system. The target shellfish are three kinds: green turban shells, button shells, and giant clams, which are not only edible but also valued for their appearance and used for accessories. The project transfers technologies on breeding and cultivation to the Agency of Fishery of Vanuatu. The technology transfer will be assisted by Tongan engineers utilizing the outcomes of the cooperation provided to Tonga by JICA in the past.

JICA hopes that these activities will lead to the improvement of the livelihood of the local residents and the effects of the breeding and cultivation will spread to the surrounding areas.

JICA 2006 95