

Rural Development

From Living Assistance Provided to Self-Sufficient Farmers to Improving Agricultural Production to Spur Economic Development



NERICA rice cultivated in Uganda

Population growth centered on developing countries, rapid economic growth in the newly industrializing economies of China and India, as well as the effects of climate change have all led to concerns of food supply shortages on a worldwide scale. Amidst this, those suffering the most from these effects are people living in poverty in developing countries with fragile social infrastructure. In order to improve the livelihoods of these people living in developing countries, it is crucial to pursue comprehensive as well as sustainable agricultural and rural development focused on improving the lives of rural residents, while at the same time considering harmonization with the natural environment.

With this being said, however, the challenges facing agricultural and rural development have grown more diverse in recent years. Going forward, many anticipate that agricultural and rural development will play an even more important role in addressing not only the challenge of meeting intense growth in global food (supply) demand, but also climate change, bio-energy, and reconstruction in the aftermath of conflict and unrest.

Agricultural and Rural Development

—Three Quarters of the World’s Poor Live in Rural Areas—

Supporting Agriculture Means Strengthening the Foundation of a Nation

Topic Overview

Agriculture is the steady provider of the world’s food supply, without which humankind would be lost. A stable agricultural base will directly lead to stability in a nation’s economy as well as government. In developing countries, agriculture occupies a significant percentage of a nation’s industry, while in many of these countries those employed in agriculture and related industries make up over one half of the population. Yet, at the same time, the reality is that a majority of the rural population in these countries are people living in poverty. Riots break out when food shortages occur, and many conflicts have arisen in developing countries over the use of

agricultural land.

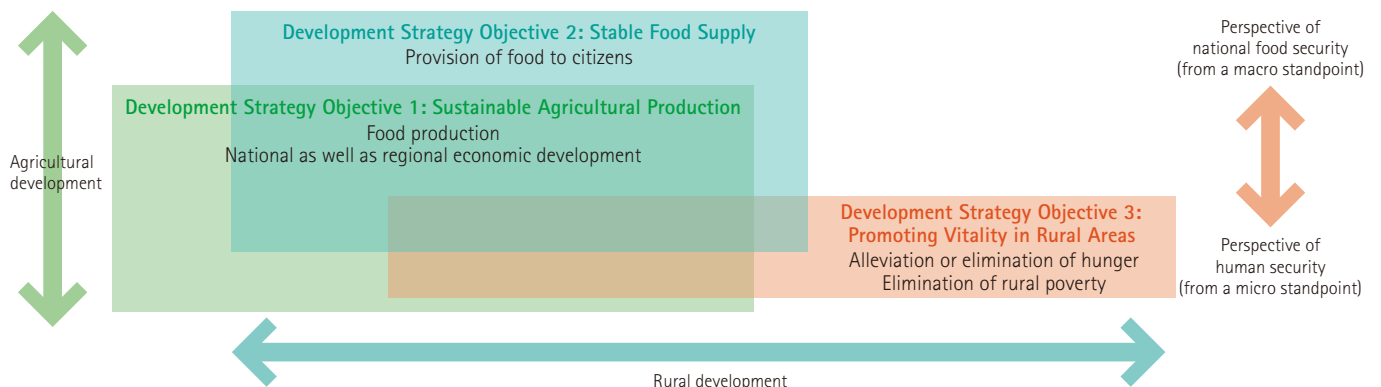
Assistance provided to agricultural industries contributes to a stronger national infrastructure, which is crucial for stability in the development of the economy and government. Furthermore, agricultural assistance also plays a significant role in promoting stability in the local community. Nearly three quarters of the world’s population living in poverty reside in rural areas, so assistance provided to agricultural industries also directly addresses the challenge of poverty prevention. Additionally, many urban people living in poverty are migrant workers or displaced farmers who trickle into cities from rural areas. Consequently, raising the living standard

in rural areas will become a key factor in deterring such urban inflows of people living in poverty. This will also have a positive effect on the problem of poverty in urban areas. Moreover, steady supplies of food to urban areas at appropriate pricing is also said to help lay the groundwork for the development of a country’s economic development.

JICA’s Initiatives

JICA has long compared agricultural development and rural development to the wheels of a car in that both are truly indispensable to one another. JICA’s objective for providing assistance in these areas is stability in food supplies, poverty reduction in rural areas and

Agricultural and Rural Development: Development Strategy Objectives and Philosophy/Goals of Assistance Programs



stability in the country as well as region. Our ultimate goal is to achieve a reduction in hunger and poverty as well as economic development through agricultural development. In order to achieve this it is vital to develop a nation's agriculture and rural areas in a sustainable manner, rather than focus on temporary increases in food production. With this in mind, JICA has established the following three development strategies:

1) Sustainability in Agricultural Production

Countries must accurately grasp their unique agricultural conditions. Assis-

tance provided by JICA for the creation and implementation of agricultural policy must be in tune with these conditions, and where necessary, JICA will take steps to help boost competitiveness as well as develop a framework for exports. Additionally, consideration must be shown toward the environment when reviewing long-term production. Such consideration also includes enhancements in agriculture-related education and expanding human resources.

2) Stability in Food Supply

In order to ensure stability in the food supply to both urban and rural areas,

on a macro level a country must secure adequate volume in supply, while on a micro level it is important to distribute this supply in a fair and efficient manner. Along with assisting in the development of a domestic distribution system and network, JICA also provides help in the development of a framework for imports and commodity reserves.

3) Promoting Vitality in Rural Areas

In order to achieve 1) and 2), JICA provides assistance in improving agricultural production, the usage/sales of agriculture products, development of dynamic economic activity and the

Example

Asia Cambodia Irrigation Technology Center Project

Aiming at Stabilizing Agricultural Production and Improving Farmers' Livelihood

In Cambodia, agriculture accounts for 43% of the GDP and 84% of the country's entire working population. While blessed with vast stretches of farmland and rich natural water resources, Cambodia's agricultural infrastructure was largely destroyed over the course of the nation's decades-long civil war and never rebuilt. As a result, the country's agricultural productivity remains far below average.

In 2006, JICA initiated the Irrigation Technology Center Project with the goal of restoring irrigation infrastructure devastated during the civil war as well as expanding human resources for the maintenance and operation of these systems. As part of this project, on-the-job-training for irrigation activities was provided to a water management group made up of local farmers at the Kandal Stung model site (Kandal Province) in April 2009. This training project involved members of the water management group participating in



Restoring an irrigation ditch in Cambodia

every stage of irrigation development—from planning and excavation to the final shaping of ditches. This season alone, the group restored over five kilometers of irrigation ditches. In addition, 38 workshops were held to provide training for irrigation engineers and technicians in the fields

of waterway and land surveys, geographical information systems (GISs), irrigation planning, design and construction, and water control, contributing to their capacity development.

From Our Expert “Having so many farmers participating in the project, I felt a solid sense of achievement”

Unsure of what to expect, the local farmers started out as if participating in an experiment. Luckily, with our success on several irrigation ditches and increased water flow, more locals became inspired in implementing the project and wanted to work on other waterways. With cooperation of leaders from local administration organizations, including the chiefs of these organizations, we were able to engage many more farming households in the project. In the end, we were able to restore over five kilometers worth of irrigation systems. With this, the district of Kandal Stung, with its major waterway restored by Japanese Grant Aid programs, has witnessed a spread of dual-crop cultivation outward from this very waterway. I am confident that farmlands surrounding the repaired waterways this time around will also see an increase in crop yields as a direct result of adopting this dual-crop cultivation technique.

Kenji Washino, Long-Term Expert (Water Management)



development of rural infrastructure, while at the same time bringing empowerment to the people.

■ Asia and Oceania

JICA is currently focusing its assistance efforts in the region on irrigation development projects in Southeast Asia, where JICA packages ODA loans with Technical Assistance, Technical Cooperation projects. Along with constructing the actual infrastructure, JICA programs also instruct area farmers on cultivation methods using irrigation as well as on maintenance practices for irrigation facilities, in the process promoting the development of an agricultural foundation combining both structural and non-structural with up-to-date facilities.

JICA-led projects ensure that local farmers participate from the planning stages, where they work side by side with JICA experts in formulating a plan of action. Incorporating the Civic Participation Model in programs means that participants can acquire the necessary technical competencies by playing

a leading role in the project. By ensuring local farmers are able to think as well as problem solve on their own, JICA aims to provide the necessary accumulation of experience and expertise to the overall development process.

In Afghanistan, decades of war and civil unrest as well as drought have resulted in agricultural production far below levels previously recorded. JICA is expanding assistance projects currently underway in the field of rice production to more rural corners of the country, with the objective of continuing the ongoing agricultural reconstruction effort.

While in India, JICA has even provided assistance for the improvement of silkworm cocoon production quality. Although the country ranks number two in the world in terms of sericulture production, the quality and volume of its cocoon cultivation decreased, as India has relied heavily on imports of high-grade silken fabrics that took up a majority of its raw silk materials. JICA made efforts to develop breeds tailored to India's unique environment and to improve breeds of mulberry, the staple

of silkworm feed. As a result, together we were able to achieve the commercial viability of new silk production using technologies oriented to local needs.

In addition, as a preventive measure related to transboundary animal diseases, JICA is expanding human resources to strengthen diagnosis technologies and monitoring networks for effective animal disease control in Cambodia, Laos, Malaysia, Myanmar, Thailand, and Viet Nam. Through its implementation of medium- to long-term assistance programs, JICA has been a staunch supporter of enhancing preventative measures addressing animal disease, including Avian influenza.

■ Central and South America

In Central and South American countries, JICA has leveraged the common language of Spanish to implement regional projects for the improvement of livestock hygiene practices. Countries included in this particular transnational project include Argentina, Paraguay, Bolivia and Uruguay. JICA has also worked to share technical manuals

Example

Asia Pakistan Punjab Participatory Irrigated-Crop Cultivation Improvement Project

Helping More Local Farmers to Take on an Active Role in Irrigation Management

Agriculture plays a crucial role in Pakistan, home to 148 million people, as the industry comprises 25% of the nation's GNP and provides jobs to over 40% of the country's labor force. Among the rural population of Pakistan, about 70% depend on farming for a living, and 40% live below the poverty line, both at a higher rate compared to their urban counterparts. In order to improve the lives of people living in poverty, and minimize disparities between regions, it is essential to further develop these rural areas.

The province of Punjab has the largest irrigated farm area in Pakistan, and relies heavily on proper irrigation. However, as the aging infrastructure built 100 years

ago began to deteriorate and lose its effectiveness, irrigation development and maintenance management have become critical areas for the provincial government to address. At the same time, the country is also shifting responsibilities of irrigation maintenance and management to the private sector.

Amidst this, JICA has launched two concurrent projects, the Punjab Participatory Irrigated-Crop Cultivation Improvement Project (Technical Cooperation Project) and the Punjab Irrigation System Improvement Project (ODA Loan Project).

The Technical Cooperation Project follows up on a prior Technical Cooperation project, through which irrigation associations and farmers' organizations were created and organized. To further enhance the functionality of these existing irrigation associations and farmers' organizations, teaching manuals on water-saving irrigation techniques were created and training was provided to officials from administrative agencies, who will in turn assist local farmers in various areas of irrigation. Furthermore, the project included demonstrations on water-saving irrigation in the designated model area of

terminal waterways within areas of the ODA Loan Project, as well as the launch and development of a farmers' organization outside the designated model area.

On the other hand, while honoring the national government's authority and ownership of land, JICA implemented the ODA Loan Project that focused on raising irrigation efficiency through repairing old and deteriorated waterways and leveling of farmlands as well as provided financial assistance that will aid in the large-scale promotion of water-saving irrigation techniques introduced through Technical Cooperation projects.

Through integrated operation of Technical Cooperation and ODA loan projects, JICA is confident that after the project period has ended, the government of Pakistan will continue to build on the framework set in place for the sustainable spread of similar projects throughout the nation.

Additionally, assistance programs geared toward indigenous peoples and agricultural practices that preserve the natural environment form pertinent parts of JICA activities in Central and South America. JICA has achieved great success in assistance projects in Dominica and the Dominican Republic, by utilizing organic materials such as bokashi fertilizer and wood acid, and in Guatemala through its assistance projects targeting small farmers.

Furthermore, triangular cooperation efforts between newly industrializing countries in South America have also grown in popularity, as JICA is in the process of furthering cooperative efforts between Brazil, one of the BRICs nations, and Portuguese-speaking nations in Africa.



Test station for water-saving irrigation



Training program for a local farmer organization in Faisalabad



Irrigation canal in Bahawalnagar

created in Spanish for this project with other countries in the region by encouraging the posting of this data on websites. Through this, we are actively moving to implement beneficial technologies and information sharing on a regional basis.

In addition, agricultural pursuits that take into consideration concerns for the environment together with support for the indigenous population are pronounced throughout the region. In specific terms, a project that utilizes such organic materials as bokashi fertilizer and wood vinegar in Dominica and a small farmer support project in Guatemala have produced outstanding results.

Furthermore, triangular cooperation with the more developed countries of South America is becoming increasingly prevalent. With respect to Brazil, a nation that is often included in a group of fast-growing developing economies referred to as the BRICs, signs of cooperative endeavors with Portuguese-speaking African countries (PALOP) are steadily emerging.

■ The Middle East

Vast stretches of the Middle East consist of arid or semi-arid lands, and yet agriculture, as a means to ensure food supply and acquire foreign currency

through trade, plays an important role in the policy of many countries in the region. Since most water resources are used for agriculture, the depletion of subterranean water by the massive water intake and the accumulation of saline in topsoil resulting from ineffective irrigation methods both pose major concerns in the region. Experts also point out that climate change will cause the reduction of river flow rates in the future. Amidst this dire outlook for the water environment, JICA is leading programs in Syria, the Palestinian Authority and Egypt that support the development of irrigation infrastructure and water-saving irrigation technologies as well as improvements in farm management to promote more efficient use of water in agriculture and to implement sustainable agricultural practices.

In the area of animal husbandry, small-scale commercial breeding of livestock in the Middle East is largely conducted alongside farming or nomadic herding/pastured grazing on pasture land that extends across arid regions. JICA has long implemented programs in Iran and the Palestinian Authority that include support for improved soil quality in arid regions by means of utilizing livestock waste products in agriculture and assistance for

enhancing productivity through improved hygienic conditions of livestock and feeding technologies.

Through these programs, JICA aims to improve the lives of small farming families and increase food production in the region where a tight supply-demand balance in food supply as well as a decrease in the food self-sufficiency ratio are predicted.

■ Africa

In Africa, nearly 70% of the population lives in rural areas, and of this a staggering 90% work in agriculture. Agriculture is also positioned as the most important industry for the African economy in that it accounts for approximately 15% of GDP and occupies a large percentage of the continent's exports.

Consequently, the development of rural areas, where anywhere from 65% to 90% of the population live in poverty, represents an extremely critical means to furthering the goal of outright poverty reduction.

Africa, however, is faced with a severe natural environment where unsteady and uncertain rainfall as well as poor soil fertility prevails. Furthermore, traditional African farming, the mainstay of agricultural practices in the region, relies on rainwater and generally

Example

The Middle East Palestinian Authority "Feasibility Study on Water Resource Development and Management in the Jordan Valley"

"Technical Cooperation for Strengthening Support System Focusing on Sustainable Agriculture"

Improved Promotion of Sustainable Agricultural Techniques Saving Small-Scale Farmers

The Palestinian Authority faces an ever-worsening poverty index while the unemployment rate exceeds 60%. Those who earn only less than US\$2 a day and who remain inevitably in poverty make up more than 40% of the population.

In the Jordan Valley area of the Palestinian Authority, agriculture accounts for only 12% of the Palestinian GDP but involves approximately 70% of the region's entire workforce. It is evident that agriculture plays a pivotal role in the area's stability and continual development. Farm produce cultivated in this area includes squash, eggplant, tomatoes, bananas, dates, grain, pasture grass, and herbs, in addition to livestock farming. This area is

one of the areas with flat ground and fertile soil for farming on the west bank of the Jordan River. However, as the Jordan Valley is situated in a semi-arid zone with insufficient natural water resources and local farmers lack adequate expertise to address this situation, they have become a roadblock to the area's further growth and development.

To tackle this problem, JICA began the feasibility study and planning of strategies for the more efficient use of agricultural water and existing water resources, and JICA has conducted the project, which aims to establish the base for extension activities to farmers, enhancing the linkage between research and extension activities for promoting the agriculture with water-saving and soil conservation farming. These efforts will contribute to improve productivity and raise incomes for small farmers in the area and to achieve the goal of the concept of "Corridor for Peace and Prosperity"* through international cooperation for agricultural development.

* On his visit to the Middle East in July 2006, then Japanese Prime Minister Junichiro Koizumi advocated this concept. This concept targets economic development of the Jordan Valley area through regional cooperation in the agricultural field between Japan, Israel, the Palestinian Authority and Jordan by means of strategic utilization of official development assistance provided by the Japanese government.



Research and promotional activities on a demo farm

focuses on risk dispersal/avoidance as the result of its “Low Input, Low Production” and “Many Varieties, Low Production” nature. As a result, the productivity of land in Africa remains stuck at extremely low levels, and with changes in rainfall conditions, production volumes experience large volatility on an annual basis. Although experiencing an increase, the production volume of grain is still unable to keep pace with the rapid rise in demand attributed to rapid population growth, as grain import volumes from other regions continue to grow at the substantial pace of 3% to 4% per year. In light of its ever-growing population, which is in the upper 2% range, and from the standpoint

of food security, bolstering productivity of primary grains and ensuring stability in supply are fast becoming urgent tasks facing the continent.

While on the other hand, growth in consumption primarily in urban areas, in particular, has been extraordinary, as today, Africa imports nearly 7 million tons of polished rice annually. At the Fourth Tokyo International Conference on African Development (TICAD IV), JICA together with donors established an ambitious goal to promote rice cultivation in Africa, to double production on the continent over the next 10 years through the Coalition for African Rice Development (CARD) Initiative and other means.

Additionally, JICA believes that it is vital to develop infrastructure that can both ensure safe drinking water and roads necessary for mobility as well as promote diverse economic activity in the region, including everything from farm waste disposal and processing industries to handicraft industries and simple trading practices, in addition to improving agricultural production. These are the keys to promoting vitality in rural areas and with this the elimination of hunger and poverty in the region. Furthermore, empowering people through better organization methods and lifting healthcare and educational standards also represent keys to the future of a prosperous Africa.

Coalition for African Rice Development (CARD) Initiative Doubling Rice Production in Africa

JICA presented the CARD Initiative at the Fourth Tokyo International Conference on African Development (TICAD IV). As the objective calls for a 100% increase in the production of rice, which as mentioned above has seen extraordinary growth in consumption primarily centered on urban areas, in the span of 10 years, JICA formed a discussion group together with related donors in the hopes of better harmonizing cooperative assistance efforts in the promotion of rice cultivation in Africa.

The JICA Research Institute in Japan played host to the 2nd CARD General Meeting in June 2009, welcoming a large audience of nearly 140 participants representing African nations, Asian nations as well as donors. Proceedings began with speeches from AGRA's Chairperson of the Board* President and former UN Secretary General Kofi Annan and JICA President Sadako Ogata, followed by presentations from each African nation regarding their National Rice Development

Strategy (NRDS). Donors and third countries also introduced their assistance policy and efforts in South-South cooperation, respectively. Going forward, plans call for full-scale efforts to begin in each African nation in order to reach the goal of doubling rice production on the continent.

* AGRA: Board of the Alliance for a Green Revolution in Africa (AGRA)



The 2nd CARD General Meeting attracted nearly 140 participants.



Rice fields in Africa with the backdrop of the continent's highest peak, Mt. Kilimanjaro

Fisheries —Fisheries Need Most to Recoup Bountiful Resources—

Helping Spread the Idea of Resource Management to Fishing Communities

Topic Overview

Harvested from oceans, rivers and lakes, fishery products represent a relatively inexpensive and precious source of protein for the people of developing countries. According to statistics released by the Food and Agriculture Organization of the United Nations (FAO),

people in developing countries depend on fishery products for 20% of their intake of animal proteins. Moreover, fishing does not require expensive production methods or land, and so is an industry in which just about anyone can work and produce. As a result, fishing has grown to become an important

means for ensuring the livelihoods of people living in poverty and women in developing countries.

Accordingly, the fisheries industry represents an important industry supporting developing countries, but because of over-fishing and environmental degradation in these regions, fishery

resources are dwindling, with some fishing grounds having already been completely exhausted. Yet, unlike mineral resources, which decline only by the amount mined, fishery resources are a renewable and effective resource that can be used sustainably for generations, if catches are kept within limits. Unfortunately, the idea of resource management has yet to permeate in those working in the fisheries industry in developing countries, as poverty tends to make people favor immediate profits. Returning fishery resources to their bountiful past and avoiding the pitfalls of over-fishing are major challenges facing the planet going forward.

JICA's Initiatives

Many developing countries do not have systems or organizations in place to serve as a framework for the management of fishery resources at the community level like Japan does through its fisheries cooperatives and fishing rights.

Additionally, often only a few capitalists or fishery product buyers hold the real power, and so small fishing communities have not had the opportu-

nity to cultivate the idea of resource management, which leads to the over-exploitation of fishing grounds.

JICA has established the following three Development Objectives, which it supports through assistance programs

1) Promotion of Vitality in Local Fishing Communities

JICA works to develop a resource management system based on the principle of local participation by forming fishing organizations and reducing costs through shared work and responsibilities, which also helps to rejuvenate local fishing communities and improve the livelihoods of local fishermen. Another key element of JICA assistance programs under this category is the effective use of unused resources, as JICA also works to diversify and improve income levels by promoting aquaculture and added-value fishery products like processed goods.

2) Effective Utilization of Fishery Resources

Fishery products lose freshness quickly, and yet developing countries lack the necessary refrigeration facilities for distribution and sales or

preserving freshness. This coupled with low awareness concerning appropriate quality control practices results in nearly one third of all fishery products unfit for use in food applications. To address these challenges, JICA has been developing the infrastructure necessary for improving distribution networks and providing instruction in related technologies, such as processing, as well as proper handling of freshly caught fishery products.

3) Preservation and Management of Fishery Resources

Fishery resources are renewable, but in order to use them in a sustainable manner, we need to protect quotas on catches to meet predetermined limits. Long-term efforts also must be made focused on raising awareness of resource management practices in order to stop overexploitation of fishing grounds. JICA, through the Bountiful Shoreline Project in Vanuatu (see below), is making an effort to increase resources by developing breeding processes targeting shellfish that are easy to harvest and thus subject to depletion.

Example

Fisheries Vanuatu Bountiful Shoreline Project

Recouping Rich Shoreline Resources through the Effort of Local Peoples

Vanuatu is an archipelago in the South Pacific Ocean consisting of over 80 large and small islands. The country has a population of around 220 thousand and roughly the same land area as Niigata Prefecture in Japan. The magnificent cobalt blue colored ocean serves as a backdrop to the Island of Efate, where the nation's capital Port Vila can be found, as well as its many outlying islands, which are blessed with a rich natural environment.

Some 80% of Vanuatu's population lives in villages or outlying, more isolated islands, half of whom live self-sufficiently. The main staple of the people's diet is a type of vegetable belonging to the potato family, while fish and shellfish caught off the coast have long formed the core source of protein. Because coastal fishery resources have been depleted in recent years due to

overexploitation, JICA, with the goal of recovering these resources, implemented the Bountiful Shoreline Project in March 2006. The second phase of this project began in 2009.

Under the instruction of two long-term specialists in aquaculture technologies and coastal resource management dispatched from Japan, JICA together with the local people implemented an intermediate breeding program for juvenile shellfish, growing these safely until they reached a releasable size. The shellfish, including Trochus and Great Green Turban, have been used not only as a food staple, but are also sold as a raw material for buttons and mother of pearl, providing additional sources of income for the local people. In assistance programs targeting shoreline resource management and the propagation of these resources, JICA proposes methods after close discussions with local communities where local people form the core of any project, with the aim to empower the local people themselves—long the major benefactors of their local waters—to revitalize their once-rich shorelines through their own efforts.



Above: Cage protecting juvenile shells from non-native predators

Below: Monitoring the harvest of adult shells

Industrial Development

Helping Developing Countries to Establish Their Industrial Foundations, Increase Employment Opportunities and Build an Economically Independent Society



Zafarana Wind Farm in Egypt

In the field of industrial development, JICA implements an array of assistance programs to support developing countries in establishing foundations for industrial development. Specifically, the areas of focus include trade and investment, tourism, support for small and medium-sized enterprises, stable electric power supply, mineral resources, renewable energy and energy conservation technologies. As illustrated by the fact that nearly 30% of JICA ODA loans are provided to the electric power sector, many of the industrial development projects require large-scale financing, making JICA's Technical Cooperation and financial support all the more effective in this realm. The objective of these initiatives is to help empower local people to build an industrial foundation, increase employment opportunities and create an economically independent society through their own efforts. Below we will discuss the two pillars of the industrial promotion segment: Private Sector Development and Natural Resources and Energy.

Private-Sector Development

—Establishing a Globally Competitive Economy through the Vitality of the Private Sector—

The Global Financial Crisis of Today Means Assistance to Small and Medium-Sized Enterprises and Jumpstarting Trade and Investment Is All-the-More Important

Topic Overview

Private-sector development is a type of cooperation that contributes to the economic expansion of developing countries by leveraging the vitality of the private sector. With improved business performance in the private sector comes

better living standards for the general public. At the same time, with increased national tax revenues, companies will be able to offer a higher level of service, encompassing education, healthcare and medical services as well as social welfare programs.

Private sector growth also helps to expand local employment opportunities and with this reduce poverty. Furthermore, development of local industries as well as greater trade and investment will promote nationwide economic activity. Enhancing the competitiveness of

Example

Trade and Investment India

Project for Visionary Leaders for Manufacturing (VLFM) Programme

Cultivating Leaders Adept at Japan's Manufacturing Practices

The human resource development program, which helps to strengthen the manufacturing industry in India, has received high marks in its second year since inception. This program invites Indian management executives to learn about the management practices of Japanese manufacturers in Japan, with the ultimate goal of developing future leaders capable of promoting reform initiatives in India. In order to meet this goal, emphasis is placed on learning about Japanese product development processes from the creation to after-sale service stages. One strong feature of the program is that it consists of 30% lectures and 70% hands-on training, so that participants can apply what they have learned immediately upon their return to India. A briefing was held in February

2009 to report on several successful cases. This briefing received an enormously positive reception and resulted in requests to participate from a number of new companies.

Looking forward, JICA believes it will be important to make efforts to encourage independent development after the end of the program. Three important pillars to achieving this are 1) the building of relationships with Japanese companies operating in India; 2) collaboration among industry, academia, and government; and 3) the leveraging of "alumni" networking. JICA hopes that the network of leaders who participated in the program will serve as a driving force to underpin and promote reform in the manufacturing industry in India.



Above: Trainees discussing an issue
Below: Promoting a sense of solidarity after the lecture through a traditional cheer "Yo—wan!" and hand clap

local industries to compete with the ever-intensifying international competition of today is a vital issue facing developing countries going forward.

JICA's Initiatives

JICA's private-sector development initiatives have so far focused on South-east Asia and East Asia, both of which have witnessed extraordinary economic growth. The shift from a traditional government-led to a private sector-led economy is steadily finding way in these regions. With the recent upsurge in world trade, developing countries are seeking ways to adapt themselves to ever-growing globalization by seeking participation in international organizations such as the World Trade Organization (WTO) and Economic Partnership Agreement (EPA).

Today, as the world faces a global financial crisis, JICA is actively providing support conducive to private-sector development, targeting the fields of small and medium-sized enterprises, tourism, trade and investment.

Trade and Investment

Developing countries must accelerate trade and investment as well as develop

national strengths to compete globally and cope with the economic challenges brought on by globalization. JICA provides assistance in the three core areas of Industrial Infrastructure Development, Organizational Strengthening and Expertise Development. The realm of Industrial Infrastructure Development includes institution-building that involves the formulation of related legislation for promoting trade and investment and other systems as well as the creation of other infrastructure necessary for a country's industrial development. In line with this, JICA also supports the strengthening of organizations, such as trade and investment agencies, and corporate organizations as well as the development of expertise that cultivates human resources in the private sector and among government policymakers in target countries. From industrial policy to export promotion, JICA truly provides a wide range of support in the area of trade and investment.

JICA projects receiving the highest evaluation include the Project for Visionary Leaders for the Manufacturing (VLFM) Program (see page 116) and the Egyptian Export Promotion Project.

Along with these, another JICA

program that is in the limelight concerns industrial development assistance for Ethiopia. The program was initiated at the request of Prime Minister Meles Zenawi who was extremely impressed by Japan's experience in assisting its Asian partners, as well as a JICA project previously implemented in Tunisia, The Study on the Master Plan for Quality/Productivity Improvement (see page 119). Plans call for a program that incorporates both the theme of quality control and productivity enhancement, much like the project in Tunisia, as well as an industrial policy dialogue much like the one jointly planned by Japan's National Graduate Institute for Policy Studies and JICA (eight dialogues scheduled over a two-year span) which will encompass the experiences of Japan and other Asian countries.

Tourism

Until now, private-sector companies have dominated tourism in developing countries. The style of tourism that prevails here can be regarded as heteronomous, which has offered little return of profits to the local community. In an effort to help tourism benefit local inhabitants, JICA's support in developing

Example

Trade and Investment Laos Preparatory Survey on Industrial Development

Preparatory Survey on Industrial Development

Because it is a landlocked nation, economic development in Laos has been slowed due largely to difficulties in the distribution of goods. Furthermore, because the country has few natural or human resources, industrialization has been delayed. The country's National Socio-Economic Development Plan provides an outline of the basic principles for the five-year period from 2006. The plan, while following closely the ideas of socialism, lays the groundwork for the modernization and industrialization of Laos by introducing the principles of a market economy.

In conducting a preparatory survey on industrial development plans in Laos, JICA followed the following five basic principles: 1) draw up a master concept of industrial development plans that combines intellectual support with equipment and infrastructure; 2) promote a moderate approach to industrialization maintaining the country's agro-based industrial structure;

3) develop legislative systems promoting industrialization and other instruments to attract trade; 4) draw up an integrated plan for industrial parks; and 5) construct industrial parks geared to the

country in line with the intentions of the government. Through earnest discussions with the Lao-tian government, JICA also plans to extend a level of consideration toward the natural environment.



On-site inspection in Laos

countries aims to change the current style of tourism from one that is heteronomous to one that is autonomous. JICA envisions that the administration, private tourism enterprises and the local residents can together develop a type of tourism that contributes to poverty reduction and in turn benefits local communities. JICA's goal is to develop a sustainable tourism scheme that will aid in overall regional development.

Today, one of the many themes

that must be addressed worldwide is the preservation of the global environment. In this regard, eco-tourism offers significant potential. For more information on JICA's efforts in eco-tourism in the Dominican Republic, see below.

Other new JICA-led projects in the field of tourism include the Jericho Tourism Promotion Project (see below). Jericho is a city filled with tourism resources and enjoys relative stability politically. Through the project and

further development of tourism, JICA wants the Jericho region to benefit both culturally and economically.

Promoting Small and Medium-Sized Enterprises

Many developing countries have been plagued not only by delays in the development of systems and policy to nurture small and medium-sized enterprises, but also by the shortage of technology and competent management resources

Example

Tourism Palestinian Authority Project for Sustainable Tourism Development in Jericho through Public-Private Partnership

Assisting Private-Public Cooperation to Promote Sustainable Tourism

Bethlehem, Jericho and East Jerusalem are just some of the famous historical sites among many other tourism resources within the Palestinian Authority. Before the second Intifada* occurred in September 2000, the tourism industry had accounted for 11% of the Palestinian Authority's GDP. Particularly, the historic city of Jericho, which was established 10,000 years ago and is known as one of the oldest cities in the world, attracted between 230,000 and 250,000 tourists annually from 1998 to 2000. The area was so popular that hotel and other infrastructure building projects were planned. However, after the second Intifada occurred, the number of tourists fell to 1,200 in 2001, and remained stagnant in the following years, with 30,000 tourists in 2004,

resulting in a precipitous drop in tourism revenue.

The year 2005 saw more tourists come back to Jericho, as a total of 100,000 tourists visited the city, but the city's tourism has yet to be fully promoted with a number of issues to be addressed. These issues include under-utilized resources, encompassing cultural monuments, limited dissemination of information and underdeveloped products. In light of the above, the Palestinian Authority has turned to Japan for assistance in solving these tourism-related issues, and in 2009 JICA began its dispatch of tourism promotion experts.

During the first year of the project, the Jericho Heritage Tourism Committee (JHTC), in charge of promoting tourism through cooperation between the public and private sectors, was



Folk craft bazaar

established. Its mission is to engage the citizens in efforts to formulate the city's tourism development concept and policies.

* Intifada is commonly used to refer to the two Palestinian Arab uprisings against Israel's military occupation. The first Intifada took place in December 1987. The word "Intifada" literally means 'to shake off' in Arabic.

Example

Tourism Dominican Republic Eco-Tourism

Turning Existing Ecosystems into Sources of Eco-Tourism That Benefit Local Communities

The Dominican Republic, an island nation in the Caribbean Sea, is a popular international travel destination and attracts more visitors annually than any other Caribbean nation. The country's tourism industry, however, still has a few standing issues that need to be resolved. For example, the impact on the natural environment from the mass development of beach resorts. Additionally, although tourists pour into the country in large numbers, most stay in all-inclusive resorts and rarely set foot outside to explore other areas in the country. As a result, local communities gain little to no profit from the tourist industry.

The Dominican Republic is located on the Island of Hispaniola, where the inherent ecosystem remains still largely untouched. The country is also home to a large number of national parks and nature preserves. Despite these plentiful resources, including scenic mountains, both natural and artificial lakes, creeks and bays, natural forest and historic towns which all give rise to excellent eco-tourism opportunities, these resources have yet to be suitably developed.

JICA began efforts to introduce eco-tourism to the region based on the short- and long-term goals of diversifying tourism, protecting and

conserving natural resources and contributing to the overall quality of life in local communities.



Participation in forest trekking as part of a training program in Japan (Yanbaru, Okinawa)

at actual production sites. This has meant that companies' growth in these countries has been inhibited. In light of this, through its assistance programs JICA has worked to expand human resources at the government level responsible for promoting small and medi-

um-sized enterprises as well as improve productivity at the corporate level.

In regions where industry has yet to develop to a satisfactory extent, JICA has implemented local industry development programs under the theme "one village, one product" in an attempt to

create employment and rectify regional disparities. In Africa, JICA is making efforts to introduce this scheme in 12 countries. Including Malawi, where the program has already taken root, JICA has also conducted research in Kenya, Nigeria and Ghana, with technical

Example

Small and Medium-Sized Enterprises Tunisia Study on the Master Plan for Quality/Productivity Improvement

Supporting the International Competitiveness of Local Products

Tunisia, located in North Africa along the Mediterranean Sea, lifted tariff barriers on industrial goods following its acceptance into the EU Free Economic Zone in January 2008. Soon thereafter, an influx of inexpensive yet quality products from the EU began to pour into the country. As a result, domestic industries that had long benefited from the country's protectionist policies were under fire and needed to be upgraded. The immediate challenge facing the country was the cultivation of companies able to create goods that could compete with foreign imports.

In order to address this issue, a national quality control unit was established in 2005, with JICA coming in to assist this unit. JICA conducted research and undertook analysis covering quality control and production practices on the two

leading industries in Tunisia, electronics and food processing, and drew up a master plan outlining the national policy, implementation system and instruction methods that would allow new practices to spread to many of the nation's companies in the future. Each manual created for this master plan was drafted with the utmost care to respect the socio-cultural conditions of Tunisia. By introducing Japan's practical methods of quality and productivity enhancement, JICA aims to help local Tunisian products retain their competitive edge after entering international markets.



Above: Conducting analysis of a food processing factory
Below: Improvements made at an electronics/electrical machinery factory

Example

Small and Medium-Sized Enterprises Mexico The Project on Technology Transfer for Supporting Industry (Stamping Technology)

Establishing a Domestic Supply Chain for High-Quality Components

Mexico has shifted its approach from a protectionist policy that favors domestic industry to a liberalization policy in an attempt to open its markets. However, the country's many small and medium-sized enterprises, most of which are active in the components industry, did not have the competitive edge needed to withstand tough competition from foreign imports. Accordingly, while progress was made in transitioning to a market economy, many of these same companies failed, ultimately increasing unemployment and leading to social anxiety. For successive governments the primary focus of industrial policy was enhancing competitiveness and promoting micro, small and medium-

sized enterprises as a means to assist the country's supporting industries. Yet the truth of the matter was most of the components made domestically lacked the technologies, such as metal pressing technologies, to produce high-quality parts, and thus in the end, the country had to rely primarily on imports for its component needs.

In light of the country's challenging situation, JICA, as a means to lift the technology standards of metal press in Mexico, has dispatched specialists in order to cultivate human resources who are capable of transferring technologies locally. At the same time, JICA conducted seminars to spread technology standards throughout the country.

Many major Japanese manufacturers in the automotive, electronics and telecommunication equipment industries have factories located in the country, but they have had to rely solely on imports to meet their component procurement needs. Accordingly, Japanese manufacturers would stand to benefit greatly from the ability to procure components from domestic sources in Mexico, which in turn would contribute to the creation of more employment opportunities locally, offsetting migrant workers moving to the United States, and promote micro, small and medium-sized enterprises.



Lecture by an expert on pressing technologies



Counterparty explaining about the press lent through the project

assistance programs getting underway in these countries as well. While in Asia, JICA's efforts place emphasis, in particular, on localized industrial development, through the same "one village, one product" model, with projects already underway in Viet Nam, Laos and Indonesia.

Thus far, JICA has largely implemented Technical Assistance and metal molding technology guidance programs as a means to support small and medium-sized enterprises, but the recent trend has shown that there is an in-

creasing need for consulting concerning the overall management practices of small and medium-sized enterprises as well as quality control and productivity enhancement methods. Furthermore, more and more assistance programs are implemented at the request of developing countries who want to develop the human resources capable of guiding the owners of small and medium-sized enterprises in efforts to hone business management skills.

Through the integration of its organization, JICA is now able to provide ODA loans to meet the capital needs of small and medium-sized enterprises that find it increasingly difficult to secure the necessary capital to support their business in developing countries. Going forward, JICA will look to leverage the synergy effects of combining Technical Cooperation with funding assistance in the aim of developing more effective assistance methods.

Natural Resources and Energy

—Toward Stable Electric Power Supply through a Private-Sector-Led Public-Private Partnership—

Aiming to Leverage Japan's Advanced Technologies

Topic Overview

Worldwide demand for energy continues to expand, even in Asia and other developing countries, where population growth and industrialization have led to an insatiable need for energy. Against the backdrop of soaring oil and other energy prices and growing global environmental concerns, the energy problem is a major challenge facing the international community going forward.

In addition, liberalization of the electric power segment, even in devel-

oping countries, has resulted in the shift to private-sector-led supply initiatives as more and more countries are pushing for reform through public-private partnerships. At the same time, the significant potential offered by renewable energies has also garnered much attention. When operated at a certain scale, renewable energies can also lead to a reduction in greenhouse gases. From this perspective as well, it is hoped for that renewable energies will act as key drivers of energy resource diversification.

JICA's Initiatives

Electric Power and Energy

The two key points to consider when providing assistance in the field of electric power and energy are 1) achieving sustainable economic growth through stable supplies of electric power, and 2) the promotion of electrification in rural areas.

JICA has implemented a large number of ODA loans and Technical Assistance in the power sector, and going forward, JICA is going to further its

Example

Energy Conservation Energy Conservation Assistance Program in Iran

Leveraging Oil Shock Experiences to Propose Energy Conservation Technologies Tailored to the Needs of Iran

The development of industry and the increase in automobiles has led to a rapid increase in energy consumption in Iran, as aggregate energy consumption has reached 44% of output. This represents a large concern for the national economy of Iran, which depends on oil exports for over 75% of its foreign currency income. In order to streamline energy use in its industrial sector, which accounts for 25% of total energy consumption, the government established an energy conservation training center.

To ensure that the newly established training center functioned properly, JICA provided guidance on factory analysis technologies for cement factories and steel mills as well as semi-

nars on heat management for lecturers at the center. At the time, much like Japan, Iran was largely unaware of the importance of data collected on factory energy consumption. Beginning with actual measurements and data analysis, JICA worked together with counterparties to compare data with similar facilities in Japan for a formal evaluation, later creating a report on how and what improvements could be made.

Although assistance provided to the energy conservation training center ended in March 2007, the center has progressed to the point where it is now able to conduct training programs independently. Through the success of this project, JICA was able to reaffirm that the experiences of Japan in achieving a 30% reduction in energy use over a 10-year period following the oil shock were also effective in promoting similar methods in Iran today. Recently JICA received a new request from Iran for promot-



Training program in progress

ing energy conservation techniques in buildings. JICA is currently preparing for the start of this assistance program.

efforts in this field to implement projects with a greater efficacy. For example, an integrated approach that involves both research on electric power plant construction as well as construction itself will allow JICA to implement assistance projects in a much more efficient and timely manner than before, speeding-up turnaround times greatly.

Previous assistance projects implemented in the power sector focused on developing related infrastructure and expanding human resources that could properly manage and maintain as well as construct power facilities. However, with the worldwide trend toward liberalization in the power sector, the electric industries in developing countries are also seeing a shift from government to private-sector management. JICA programs will be helping to smoothly move this reform process forward. In the promotion of rural electrification, the need also exists to strengthen the government's administrative capacity in developing countries based on the concept of human security and the standpoint of the local community—the major benefactors from any project—in areas yet to be connected to the grid. In this sector as well, JICA is also moving to bolster power project assistance programs on the African continent.

In March 2009, the JICA Research Institute in Tokyo hosted the Electric Power Forum for Asia. Today, developing countries face a variety of challenges in finding ways to ensure that stable supplies of electric power meet rapidly growing demand. The forum brought together officials representing the electric power sector from five Asian nations and private-sector electric power providers in Japan. Under the theme of electric power sector reform, each country in attendance presented case study reports, while other discussions were held on the possibility of cooperation between governments and the private-sector, public-private partnership and other topics. Participants provided very favorable reviews, as they saw firsthand the importance of sharing both

information and experiences with one another. Furthermore, representatives from the government of Japan also spoke about Japan's electric power sector structural reform transition. In the end, the forum became an opportunity for participating countries to think together about efforts for reforming the electric power sector in each country.

Natural Resources and Energy Conservation

Under Natural Resources and Energy Conservation, JICA conducts the following efforts in the three fields of mining, renewable energies, and energy conservation.

1) Mining (Resources)

JICA develops information resources as well as master plans for the sustainable development of mineral resources. Efforts are also made to promote the greater international competitiveness of developing countries.

2) Renewable Energies

With preservation of the global environment in mind, JICA is conducting development studies on development plans for photovoltaic systems and small-scale hydroelectric power stations as an independent power source model for rural electrification. Also, a new Grant Aid scheme, the Program Grant Aid for Environmental and Climate Change*, was created. Currently efforts are moving forward under this new program for photovoltaic power generation in target countries. Specifically, JICA has developed plans for solar power projects in countries participating in the Cool Earth Partnership, starting with power supply efforts in several countries in the Oceania region where photovoltaic arrays will be linked to local power grids. While in Kenya, Indonesia and Central and South America, JICA is also engaging in efforts in geothermal power development.

* Implemented as a new Grant Aid scheme in fiscal 2008 with the objective of helping to address greenhouse gas reduction (mitigation measures) and support efforts to adjust to climate change (adaptation measures).

3) Energy Conservation

JICA's development of energy management technicians represents another key program among its energy conservation assistance projects leveraging Japanese technologies. Thus far, JICA has helped to train energy management technicians able to manage heat and electric power use in Thailand, Turkey and Poland. After a series of JICA assistance projects in Turkey, newly trained technicians were soon able to operate independently, and they are now able to serve as a conduit for technician training in third countries. Overall, JICA has achieved many positive results because of the energy management technician training program.

Additionally, with the launch of New JICA, the ODA loan program scheme is expected to be even more instrumental with enhanced effectiveness in assistance programs. JICA is currently implementing the Two Step Loan*, which focuses on the field of energy conservation, in India. JICA hopes to achieve synergistic effects from combining Technical Cooperation and funding assistance programs by implementing the Two Step Loan in other countries going forward. New JICA can also form links with the private sector much more smoothly. Looking ahead, JICA has high expectations when it comes to sharing beneficial Japanese technologies with many more countries around the world.

* Scheme where ODA loan funds provided to development finance organizations of the borrowing nation are used to provide loans to small and medium-sized enterprises located in the borrowing nation.

JICA's Approach to Aid for Trade

What Is Aid for Trade (AfT)?

The idea of AfT refers to assistance provided to developing countries that helps them strengthen the supply-side capacity and trade-related infrastructure, so that they can benefit from trade expansion and reduce poverty.

Underlying the notion is that in the 1990s, the growing membership of developing countries in the World Trade Organization (WTO) propelled interest in development issues in developing countries to the forefront.

Since the Seattle WTO ministerial meeting, the WTO has placed more attention not only on free trade negotiations, but also on development issues at the meetings. Because of this movement, both at the Doha Round (multilateral trade negotiations) and the 6th Ministerial Conference held in Hong Kong, WTO members recognized that free trade would have a negative impact on developing countries. As a result, AfT has been promoted to improve supply capacity in developing countries, as a means to mitigate the negative impacts.

AfT is based on the idea that building supply-side capacity and trade-related infrastructure in developing countries will enable these countries to realize trade profits, and consequently, realize economic growth through these trade profits. Representative examples of AfT include infrastructure develop-

ment that reduces the cost of supply, and capacity development that promotes trade and investment. More specific fields included in AfT can be found below.

- ▶ Trade Policy and Regulations
- ▶ Trade Development
- ▶ Trade-Related Infrastructure
- ▶ Building Productive Capacity
- ▶ Trade-Related Adjustment
- ▶ Other Trade-Related Needs

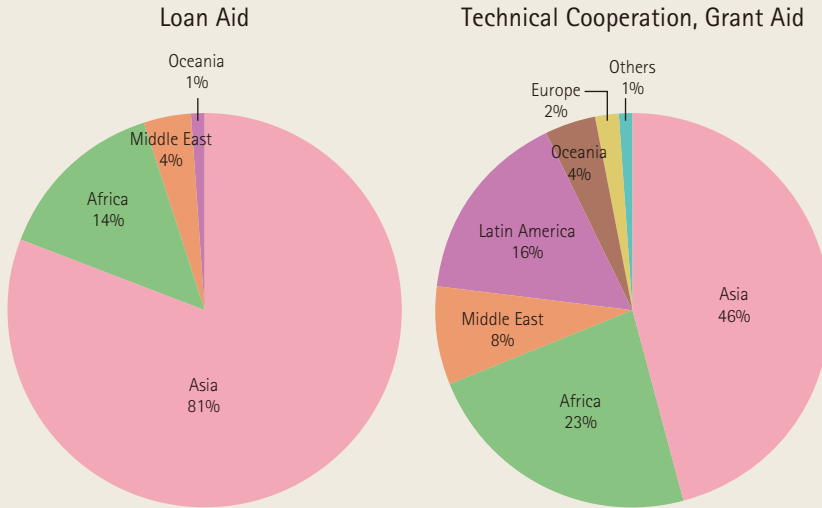
JICA-Led AfT Support

With this background, JICA is also working on assistance programs for AfT. As an example, about 76% of all ODA loan projects are devoted to AfT. Asia and Africa are the main areas of AfT-related assistance (Figure 1). Assistance provided to Asian countries accounts for upwards of 81% of all AfT-related ODA loan projects, and 46% of AfT-related Technical Cooperation/Grant Aid projects. On the other hand, assistance provided to African countries occupies 14% of all AfT-related ODA loan projects, and 23% of AfT-related Technical Assistance/Grant Aid projects. For comparison within the ASEAN region alone, about half of all AfT-related Technical Cooperation projects are conducted in CLMV countries (Cambodia, Laos, Myanmar and Viet Nam). ODA loan projects in this region have largely been concentrated in Viet

Nam, but some were also extended to Cambodia. This shows JICA's approach to help minimize regional disparities and improve integration among ASEAN countries through trade expansion (Figure 2). Moreover, by looking at the different areas of assistance provided in the ASEAN region, it is clear that JICA focuses mostly on the development of economic infrastructure, showing that JICA aims to promote overall economic growth through infrastructure development in the region that will benefit every individual (Figure 3).

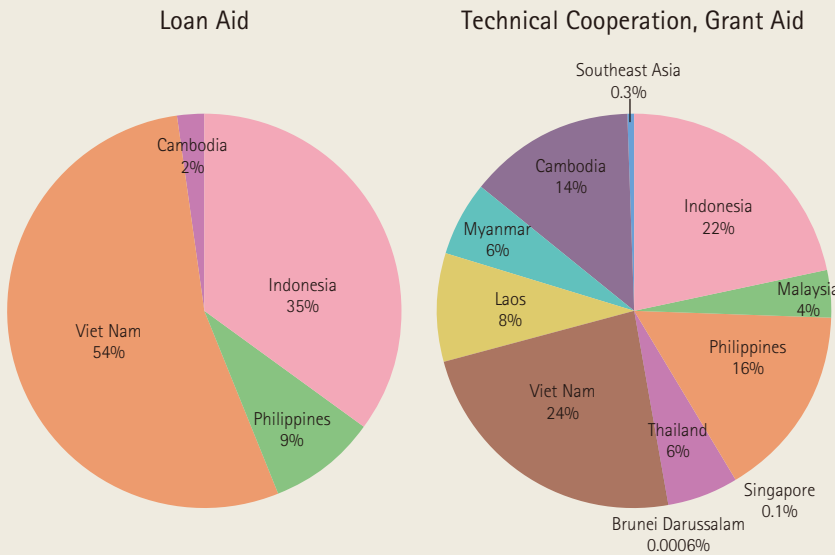
The WTO designated 2009 as the year of global review of AfT, hosting a global review meeting to review the progress of AfT on July 6 and 7 in Geneva. State Secretary for Foreign Affairs Shintaro Ito attended the high-level forum representing Japan. JICA representatives also participated in sectional meetings and delivered a presentation on JICA's efforts and overall contributions in AfT. Prior to the global review meeting, JICA also took part in a number of regional meetings. Specifically, JICA actively participated in the ASEAN regional meeting held in Cambodia, through a presentation on its contribution and policy covering AfT in the ASEAN region. At the global review meeting, AfT monitoring and strategies for donor coordination, among other things, have been discussed.

Figure 1 2007 AFT Results by Region



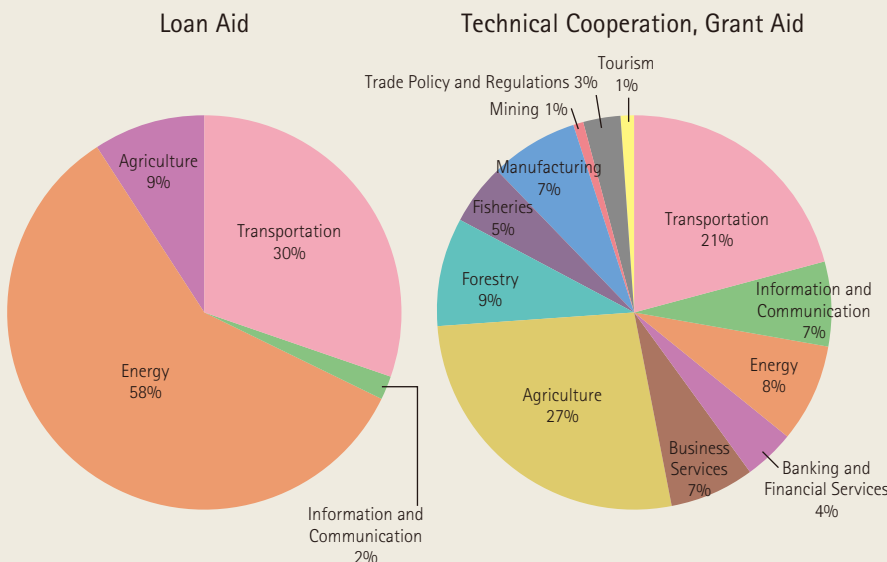
- In 2008, nearly 76% of JICA's ODA loan projects was devoted to AFT
- Asia and Africa have become principal focused regions for aid projects, with Asia accounting for 81% of all AFT-related ODA loan projects and 46% of all AFT-related Technical Cooperation Grant Aid programs.
- Africa accounts for 14% of all AFT-related ODA loan projects and 23% of all AFT-related Technical Cooperation Grant Aid projects.

Figure 2 2007 ASEAN AFT Results by Country



- Over half of all AFT-related Technical Cooperation projects in the ASEAN region take place in CLMV countries (Cambodia, Laos, Myanmar and Viet Nam).
- ODA loan projects have begun in Viet Nam and Cambodia, showing the direction of aid projects headed toward addressing disparities among ASEAN nations through expanded trade and greater regional integration.

Figure 3 2007 ASEAN AFT Results by Segment



- Economic infrastructure development represents the principal field of aid projects in the ASEAN region, showing that JICA aims to promote overall economic growth through infrastructure development in the region that will benefit every individual.

Note: Data in the above charts are rounded off. The totals may not match the sums of each item added together.



International seminar

Research

Utilizing the Stellar Qualities of Aid Implementation Organizations to Promote Policy-Oriented Academic Research

Establishment of JICA Research Institute

With the establishment of New JICA on October 1, 2008, the research functions of the Institute for International Cooperation at the old JICA were merged with those of the JBIC Institute at the former Japan Bank for International Cooperation (JBIC) to establish the JICA Research Institute (JICA-RI).

The JICA Research Institute intends to make its presence known through its capabilities in two areas: utilizing cumulative experience and knowledge of aid implementation organizations, and offering practical proposals. The Research Institute is actively seeking to take the lead in policy-oriented academic research and development aid trends, to contribute to analysis of development issues in developing countries as well as of JICA program strategies, and to strengthen information and knowledge sharing in Japan and abroad.

Basic Principles of Research Activities

The international community has been grappling with the problems facing developing countries—including poverty, armed conflict, and environmental degradation—but solutions to many of the most basic remain out of reach. To promote research of value in finding the solutions, JICA-RI has laid down four basic principles and four priority research areas, as listed below:

1) Comprehensive Perspective:

JICA-RI will conduct cross-field research and analyze developing country issues from a comprehensive perspective, encompassing the individuals, society, state and market.

2) Integration of the Past and Future

JICA-RI will conduct studies building on the operational experiences and analytic results of the former JICA and JBIC, as well as of other development aid organizations worldwide. It will incorporate these into the future activities of the newly created JICA.

3) Unraveling East Asia's Experiences

JICA-RI will analyze Japan's growth experiences and the growth experiences of the East Asian neighbors with whom Japan has been closely associated for lessons applicable to other regions. In so doing, it will carefully study the history and culture of each target country or region to examine the applicability of different development models.

4) Open Activities and Collaboration with the International Community

JICA-RI intends to be a research institute that is open to domestic and international researchers, aid-implementing organizations, government bodies, private-sector corporations and NGOs. It intends to share information on its research processes and findings while welcoming collaboration.

Priority Research Areas

The JICA Research Institute broadly classifies research activities into the following four areas:

1) Peace and Development

Violence and social turmoil undermine human security and critically deter socioeconomic development. In the 21st century, the number of fresh armed conflicts has been declining but the risk of conflict recurrence remains high, a reflection of incomplete state-building processes in post-conflict situations. There also are difficult transborder events that stretch the conventional paradigm of national security and threaten the lives and safety of ordinary people, such as the 1997 Asian financial crisis and the 9/11 terrorist attacks. In the research area of peace and development, we conduct studies on conflict prevention, state building and transborder security issues.

2) Growth and Poverty Reduction

Japan and its East Asian neighbors are considered economic development success stories, having realized growth and reduced poverty. Africa,

by contrast, stirs concern about the sustainability of its economic growth. JICA-RI studies the reasons for successful growth and poverty reduction in Japan and East Asia and also the reasons for Africa's vulnerability. We also explore success factors that can be shared, to help design development strategies for Africa from East Asian perspectives.

3) Environment and Development/Climate Change

Resource and environment governance is increasingly an important issue, as the sharing of public space expands with economic globalization and as interest-driven conflicts over public resources escalate. JICA-RI studies conflicts that arise among stakeholders in developing countries over basic public resources in order ultimately to create a blueprint for future support on environmental concerns. Whether on a global or local scale, environmental deterioration and destruction are major threats to human life. Climate change especially looms, threatening developing countries through droughts and floods. Low-income groups in developing countries are the most vulnerable to these "natural" disasters, as they tend to live in hazardous marginal areas, whether urban or rural. JICA-RI studies measures for climate change mitigation and adaptation suitable for developing countries, utilizing the latest natural sciences knowledge and methodologies and JICA's own accumulated experiences and data acquired through its development assistance activities.

4) Aid Strategies

Our research in this area covers two broad themes: "aid effectiveness" and "the emerging aid agenda." Researchers in aid effectiveness apply rigorous academic analysis to JICA's field operations in order to evaluate them from the viewpoints of human security and inclusive/dynamic development. Their research projects

are conducted as comparative case studies of capacity development, innovation in empirical impact evaluation, and the role of emerging donors. Researchers in the emerging aid agenda emphasize the medium- and long-term perspective with an eye to the post-MDG (Millennium Development Goal) era, after 2015. They conduct studies on development potential in Islamic societies and knowledge creation in developing countries.

In conducting research in these areas, JICA-RI places special emphasis on the following five priority themes: state-building of “fragile states”; African development and the Asian experience; response to climate change; analysis and improvement of aid effectiveness; and issues related to ASEAN integration.

Status of Activities

In the short time since the October 2008 establishment of the JICA Research Institute (JICA-RI), a series of research projects has already been launched. An overview of these projects can be found on the Research Institute's website.* As these research projects are launched, a system is being developed

to facilitate cooperative efforts between practitioner-turned researchers and academic researchers.

JICA-RI emphasizes network-style research based on partnerships with internal and external research organizations and implementation organizations. Joint research is underway with the World Bank, the Asian Development Bank (ADB) and other multilateral organizations; and also with Columbia University in the United States as well as Oxford University and the Overseas Development Institute (ODI) in the United Kingdom; and with the ASEAN Institutes of Strategic and International Studies (ASEAN ISIS).

Since the Research Institute is a relatively recently established organization, it is only in the early stages of activity organization. Even so, interim results are already available for various projects. In February 2009, interim results for research into climate change were announced at an international academic conference in Bangkok, Thailand. On March 31 of the same year, the “Symposium on Human Security in ASEAN Integration: Possibilities and Outlook” was held at which JICA-RI presented interim reports on research related to this theme pursued jointly with ASEAN

ISIS. Moreover, individual researchers have presented their own reports at various academic venues, including the Japan Society for International Development, the Japanese Economic Association, and the World Water Forum.

Interim research results are displayed as working papers on the JICA-RI website* as they become available, inviting evaluation from a wide range of readers. Final research results are expected to be published as papers or in book form. JICA-RI will also issue “policy briefs” that extract policy and practical operation messages from research results, presenting them in an easy-to-understand format.

The November 25, 2008 symposium convened to mark JICA-RI's establishment (see below) was attended by many people involved in the aid and development sector, from both Japan and abroad, who conveyed their expectations for the new organization. To answer those expectations, the Research Institute is engaging in policy-oriented academic research that calls on the experience and knowledge gained by aid organizations over the years.

* <http://jica-ri.jica.go.jp/ja/index.html> (JP)
<http://jica-ri.jica.go.jp/index.html> (EN)

Symposium to Celebrate the Launch of the JICA Research Institute Fusion of Science and Practice: Toward Cooperation between Researchers and Practitioners

On November 25, 2008, a symposium celebrating the launch of the JICA Research Institute was held. At this symposium, the role and direction of the Institute were discussed.

At the event, JICA President Sadako Ogata called for a research institute that can systematize the cumulative experience gained by aid implementation organizations, that can deepen independent research, and that can take a comprehensive approach capable of responding to the complexity and multidimensionality of development aid.

JICA-RI Director Keiichi Tsunekawa emphasized the need for a fusion of theory and practice, for cooperation between researchers and practitioners, and for the building of a network of researchers in Japan and abroad. He then announced the names of three researchers who will represent JICA Research Institute in their respective research domains. Their names and speech themes are given below:

- Shinichi Takeuchi (Visiting Fellow)
“Peace and Development: A New Challenge”
- Megumi Muto (Research Fellow)
“Connecting Policy and Action: Research on Climate Change”
- Atsushi Hanatani (Senior Research Fellow)
“Social Dimension of Public Goods Management in Rural Africa ”

In addition, Mr. Kiyoshi Kodera, Executive Secretary, World Bank/IMF Development Committee, and Mr. Simon Maxwell, Director, ODI (U.K.), used their opportunity as guest speakers to explain their visions of the role they believe JICA-RI should play. Participating panelists also discussed the global financial crisis and the adverse effect the economic slowdown is likely to have on international aid, warning that the world should not use these events as an excuse to turn its back on people living in poverty in developing countries.



Sadako Ogata, JICA President



Keiichi Tsunekawa, JICA Research Institute Director



A JICA expert and counterparts conducting a forest growth survey (Viet Nam)

Implementation System: Cooperation Modality

Preparatory Surveys

Utilizing the Special Characteristics of Three Schemes of Assistance to Achieve Mobility, Prompt Action, and Synergistic Effects

Characteristics of Preparatory Surveys

Project formation processes of the main schemes, namely Technical Cooperation, ODA Loan and Grant Aid, used to be conducted separately. Preparatory surveys were introduced in order to streamline these processes by integrating them into one process.

The special features of preparatory survey enhance mobility and quickness of JICA's assistance, as decision on implementation can be made any time on a necessity basis in consultation with

the Ministry of Foreign Affairs, and those surveys conducted separately in the past (i.e., cooperation program formation and individual project formation) can be merged into a single survey when appropriate.

Moreover, it enables JICA to implement cooperations with greater development effect and development of optimum assistance combinations by taking advantage of synergistic effects that are produced by utilizing characteristics of the three schemes and combining them in the most effective manner.

Survey Objectives and Contents

The objectives of preparatory surveys can be divided broadly into two types.

- 1) Set cooperation goals for supporting the attainment of specific development goals, and develop suitable cooperation scenarios toward attaining those goals.
- 2) Identify and formulate individual projects and basic project plans, propose cooperation contents, and study the relevance, effectiveness and efficiency of the candidate projects.

In the second half of fiscal 2008, there were 179 preparatory surveys (as of March 31, 2009).

Major Preparatory Surveys

Country name	Survey name
Indonesia	Preparatory Survey on Port Security System Improvement Project Phase II
Indonesia	Preparatory Survey on Higher Education Program
Indonesia	Preparatory Survey on Southern Bali Water Supply Development Project
Indonesia	Preparatory Survey on Kusan Hydroelectric Power Plant Project
Indonesia	Preparatory Survey on Jakarta Mass Rapid Transit System North-South Line Extension Project
Indonesia	Preparatory Survey on Public Private Infrastructure Development
Malaysia	Preparatory Survey on Sewerage Treatment Plant Project (II)
Philippines	Preparatory Survey on Nationwide Fish Ports Project (III)
Philippines	Preparatory Survey on Central Philippines Comprehensive Infrastructure Development Project
Philippines	Preparatory Survey on Program Sector Loan on Disaster Management
Philippines	Preparatory Survey on Metro Manila Sewerage System and Sanitary Environment Improvement Project
Philippines	Preparatory Survey on Road Asset Management Program
Timor-Leste	Preparatory Survey on Oecusse Port Urgent Rehabilitation Project
Oceania region	Preparatory Survey on Human Resource Development in Health Sector
Oceania region	Preparatory Survey on Climate Change Strategy in Pacific Region
Solomon Islands	Preparatory Survey on Radio Broadcasting Network for Administration of Disaster Prevention
Tuvalu	Preparatory Survey on Improvement of Medium Wave Radio Broadcasting Network
Samoa	Preparatory Survey on Improving Weather Forecasting System and Meteorological Warning Facilities for Samoa and Meteorological Applications to Other Sectors
Thailand	Preparatory Survey on Southern Seaboard Development Project
Thailand	Preparatory Survey on Human Resources Development Project
Thailand	Preparatory Survey on Climate Change Project
Cambodia	Preparatory Survey on the Siem Reap Water Supply Expansion Project
Cambodia	Preparatory Survey on Promotion of Private Sector
Laos	Preparatory Survey on Formulation of Basic Strategy for Regional Core Cities Development
Laos	Preparatory Survey on Industrial Development in Lao P. D. R.
Laos	Preparatory Survey on Nam Ngum 1 Hydropower Station Extension
Viet Nam	Preparatory Survey on Strengthening Implementation System of Sanitary and Phytosanitary Measures
Kazakhstan	Preparatory Survey on Export Promotion in Kazakhstan
Uzbekistan	Preparatory Survey on Legal Assistance for Improvement of the Conditions for Development of Private Enterprises
Uzbekistan	Preparatory Survey on the Field of Disaster Management in Central Asia

Country name	Survey name
Uzbekistan	Preparatory Survey on Tashkent Heat Supply Power Plant Modernization Project
Bangladesh	Preparatory Survey on Khulna Water Supply Improvement Project
Bangladesh	Preparatory Survey on Dhaka City Urban Transport Network Development Project
Bangladesh	Preparatory Survey on Padma Multipurpose Bridge Construction Project
Bangladesh	Preparatory Survey on Rural Electrification Project
India	Preparatory Survey on Renewable Energy and Energy Efficiency Project
India	Preparatory Survey on Water Supply Project for Eight Towns of Haryana State
Pakistan	Preparatory Survey on Lahore Water Supply, Sewage, and Drainage Improvement Project
North, Central, and South America region	Preparatory Survey on Regional Support for Improvement of Environmental/Disaster Risk Management
El Salvador	Preparatory Survey on Environmental Sanitation Program
Guatemala	Preparatory Survey on the Project on Municipality Strategy for Poverty Reduction in San Juan Ixcocoy, Ixchiguan and San Bartolome Jocotenango
Guatemala	Preparatory Survey on Promotion of Production Activities by Clean Energy in the Northern Villages
Guatemala	Preparatory Survey on Disaster Prevention Program
Guatemala	Preparatory Survey on Zonapaz Road Improvement Project (II)
Honduras	Preparatory Survey on Irrigated Agricultural Development in Sulaco and Jesus de Otro Valley
Honduras	Preparatory Survey on Transport and Communication Network Program
Mexico	Preparatory Survey on the Project of Energy Saving Promotion
Bolivia	Preparatory Survey on the Project for Agroindustrial Development in Northern La Paz Department
Brazil	Preparatory Survey on Non-Revenue Water Control Project in São Paulo State
Brazil	Preparatory Survey on Urban Transport Development Project in São Paulo
Brazil	Preparatory Survey on Belem Metropolitan Bus Transportation System Project
Paraguay	Preparatory Survey on Improvement of Water Supply and Sewerage System in Este City Region
Peru	Preparatory Survey on Disposal Sector
Peru	Preparatory Survey on the Project for Rural Amazon Water Supply and Sanitation Improvement and Expansion
Peru	Preparatory Survey on Sierra Irrigation Improvement Project
Sudan	Preparatory Survey on Agricultural Development in Eastern Sudan
Ghana	Preparatory Survey on Port and Transport Sector Improvement in Ghana
Ghana	Preparatory Survey on Program on Strengthening Health System for MNCH in Upper West Region
Kenya	Preparatory Survey on Support to the Host Community for Refugee Camp of Somalia
Malawi	Preparatory Survey on Irrigation Promotion Program
Malawi	Preparatory Survey on Transport Infrastructure Development Program
Namibia	Preparatory Survey on the Walvis Bay Port Container Terminal Development Project
Tanzania	Preparatory Survey on Widening of New Bagamoyo Road Project
Burundi	Preparatory Survey on Project Formulation for Peacebuilding in Burundi
Cape Verde	Preparatory Survey on Water Supply System Development Project in Cape Verde
Cape Verde	Preparatory Survey on Power Transmission and Distribution System Development Project
Madagascar	Preparatory Survey on Ivato Airport Expansion Project
Mali	Preparatory Survey on Formulation of Cooperation Program for Rice Development in Mali
Mauritius	Preparatory Survey on Grand Baie Sewerage Project Phase1-B
Mozambique	Preparatory Survey on Road Improvement Plan on Nacala Corridor (Cuamba-Mandimba-Lichinga)
Democratic Republic of Congo	Preparatory Survey on Road Rehabilitation in Kinshasa
Iraq	Preparatory Survey on Beiji Refinery Upgrading Project
Iraq	Preparatory Survey on Water Supply Sector Loan in Mid-Western Iraq
Yemen	Preparatory Survey on Electricity Development/Rural Electrification in Yemen
Egypt	Preparatory Survey on Establishment of Wind Farm at the Nile Valley
Egypt	Preparatory Survey on the Rehabilitation and Improvement of Dirout Group of Regulators
Egypt	Preparatory Survey on Greater Cairo Metro Line No.4
Cambodia	Preparatory Survey on the Master Plan Study for Promoting Mining Industry in Cambodia
Oceania region	Preparatory Survey on the Utilization of Renewable Energies in Pacific Ocean Countries
Turkey	Preparatory Survey on Optimal Power Generation for Peak Demand in Turkey
Turkey	Preparatory Survey on Small and Medium Enterprise Consultancy System Project in Turkey



Vocational training school in Dhaka (Bangladesh)

Implementation System: Cooperation Modality

Technical Cooperation Projects

Customized Cooperation Created with Community Participation

Technical Cooperation projects are one of the core projects implemented overseas by JICA. Customized cooperation projects are created with partner countries taking into account local conditions, utilizing the knowledge, experience, and technology of both Japan and developing countries toward the resolution of issues within a specified time frame.

The needs of developing countries are becoming increasingly diverse and multifaceted. In addition to agriculture and the development of social infrastructure, these needs have in recent years spread to support for measures against infectious diseases, transition to a market economy, and the development of legal systems, peacebuilding and reconstruction assistance in Afghanistan, Sudan, and elsewhere.

JICA considers that it is important to provide more accurate and rapid responses to these countries' needs as well as to plan and implement cooperation in the most effective manner depending on each situation and development issues in various countries.

Characteristics of Technical Cooperation Projects

Cooperation that Respects Ownership

JICA's Technical Cooperation is intended to develop human resource capacities and build institutional frameworks that enable developing countries to engage in economic activities while working toward a stable society through their own efforts. To secure sustainable economic and social development even after JICA's cooperation activities have ended, it is important to nurture a sense of ownership among developing countries toward these projects. For this reason, many Technical Cooperation projects adopt "participatory" methods, whereby local people in each project's target area participate in planning, operation management and evaluation activities.

Joint Projects

Technical Cooperation projects are joint projects with partner country governments. JICA does not simply bear all the expenses incurred by the projects, but shares the responsibilities and encourages partner countries' self-help efforts to improve sustainability after cooperation ends.

Technical Cooperation Appropriate for Local Conditions

JICA works to develop appropriate technology integrating local know-how and Japanese technology.

Institutional Reform and Organizational Strengthening

Not merely limited to technical advice and technology transfers to counterpart personnel, our assistance puts emphasis on capacity development for improving developing countries' abilities in addressing development issues by people, organizations and society as a whole.

Cooperation with the Private Sector

To actively utilize the cumulative experience and know-how of private enterprises, universities, NGOs, etc., JICA is expanding collaboration with those players, and pursuing a results-oriented approach over a wide range of sectors.

Operation and Management of Technical Cooperation Projects

PDM (Project Design Matrix) is known as a logical framework which organizes project flow: "inputting resources" → "implementing various activities" → "attaining a goal." JICA utilizes PDM as a management tool for Technical Cooperation projects to ensure consistency in planning, implementation, and evaluation.

In PDM, "goals" are divided into the following three levels:

1) Outputs

Specific goods or services produced through the implementation of activities

2) Project Purpose

As a result of the produced output, the purpose expected to be attained by the time a project is completed

3) Overall Goal

Development goal expected to be achieved by sustaining the effects of each attained project purpose through project implementation. Attainable with a high degree of certainty over a certain period of time after project completion

Utilizing PDM logically assembles causes and effects to determine how the relationships between "inputs" and "activities" are linked to attain these three goals. Indicators are set to confirm the attainment of the "goals," and external conditions for proceeding to the next step are clarified at each stage, until PDM is completed. Projects proceed based on this PDM process.

Major Inputs

Technical Cooperation projects are aimed at obtaining better outcomes through the optimum and flexible combination of inputs—such as the "dispatch of experts," "acceptance of technical training participants," and "provision of equipment"—as well as through the management of projects in a planned and comprehensive manner, and maintaining consistency from the planning stage through implementation and evaluation.

1) Dispatch of Experts

Japanese experts are dispatched to developing countries, where they work together with government officials and engineers to develop and disseminate technologies and institutions suited to the conditions in those countries. Where appropriate, JICA

dispatches experts from third countries (countries other than Japan or the partner country), rather than experts from Japan in order to deliver services more efficiently.

2) Acceptance of Training Participants

JICA invites competent personnel in developing countries, who have significant responsibility in social and economic development, to Japan as training participants. They participate in training programs in Japan and obtain knowledge and technologies necessary to their home countries. JICA also organizes training programs in partner countries or in third countries.

3) Provision of Equipment

Equipment needed by experts for implementing effective cooperation are provided to partner countries.

4) Partnership with NGOs

JICA promotes coordination with NGOs when there is a need to disseminate technologies, systems, and institutional frameworks, broadly or when activities are being conducted at a grassroots level.

5) Local Activity Expenses

To boost development effects, JICA supports expenses for training, seminars, educational campaigns, and public relations activities while enabling experts to carry out their on-site activities smoothly.

Example

Ethiopia Project for Strengthening Technology Development, Verification, Transfer and Adoption through Farmer Research Groups (FRGs)

Development of FRG Guidelines Proceed Smoothly with Increased Incomes Also Attained

Agriculture, which involves about 85% of the working population and accounts for 52.3% of the gross domestic product, is one of the most important industries in Ethiopia. Because of concerns over inadequate food supplies for many years, there is a pressing need to improve agricultural productivity in Ethiopia, and the government has attempted to introduce and promote a research method (the FRG approach). This approach features the cooperation of farmers, researchers, and development agents to work on development and improvement of agricultural technologies. In practice, however, many FRG activities to date have tended to be top-down with inadequate efforts made to understand the actual requirements of local farmers. As a result, there have been strident calls for the construction of effective systems that can implement appropriate development and modifications that meet farmers' needs and are within their capabilities.

In 2003, Ethiopia requested that the government of Japan provide Technical Cooperation to establish a technology development system based on farmer participation and enhance systems for the dissemination of appropriate technologies. In response to this request, JICA proposed the following Technical Cooperation

project. The five-year project, involving a combination of dispatching experts, acceptance of technical training participants, provision of equipment, and support for expenses, etc., and joint implementation of cooperation with Ethiopia, commenced in July 2004.

Project Objective:

Establish a new "FRG approach" to serve as a core for research and dissemination methods.

Input:

Japan side

Long-term dispatch of experts
Total of four people
(Permanent stationing of three people)
Short-term dispatch of experts
Total of 16 people
(About 27 people/month)
Acceptance of technical training participants
65 people
(Including third-country training)
Provision of equipment
Project management expenses

Ethiopia side

Stationing of counterparts
Total of 14 people
Project management expenses
Provision of land and facilities, and offices for the Japanese experts

This project has to date successfully obtained the participation of stakeholders in promoting the steady development of FRG guidelines, resulting in activities linked to increases in farmer production volumes and productivity, particularly in farming households engaged in vegetable cultivation and seed production, and to increases in income. As the final year of cooperation approached, attention was turning to such residual issues as the development of educational materials to assist with technology dissemination and the strengthening of monitoring and evaluation systems. Progress is being made with efforts to form follow-on cooperation projects that expand and develop the cooperation results obtained from this project.

* FRG: Farmer Research Group



Farmers receive an explanation of FRG activities.



Improved plow



Bosphorus Bridge No. 2 (Turkey)

Implementation System: Cooperation Modality

ODA Loan

Loans for Development under Moderate Terms Encourage Ownership by Developing Countries

In many developing countries, economic and social infrastructure encompassing electricity, gas, transportation and communications services is under-developed. In recent years, in addition to a growing population that lives in poverty in certain regions, such global problems as HIV/AIDS and other communicable diseases, air and water pollution, climate change as well as conflicts and terrorism have emerged. To address these issues, the international community set out the Millennium Development Goals (MDGs) as common goals, while individual countries have launched a range of measures.

ODA Loan supports developing countries by providing low-interest, long-term and concessional funds to finance development efforts.

Characteristics of ODA Loan

—Supporting Developing Country Ownership—

Ownership is crucial for economic growth and poverty reduction in developing countries. ODA Loan, which requires repayment, promotes efficient use of the borrowed funds and appropriate supervision of the projects they finance, thereby underpinning developing countries' ownership in the development process. In addition, as ODA Loan is financial assistance with repayment obligation, it places a relatively small fiscal burden on the Japanese government

and represents a sustainable instrument for official development assistance.

Targeted Areas

International organizations and developed nations are making a variety of efforts to achieve the MDGs. The ODA Charter adopted by the Cabinet in August 2003, moreover, assigned priority on poverty reduction and peacebuilding, in line with the MDGs. Following the ODA Charter, ODA Loan is being actively used to provide support in the areas contributing to poverty reduction, peacebuilding and addressing global issues.

Flow for Implementation of ODA Loan

—Project Cycle—

ODA Loan follows six steps. As lessons learned from ex-post evaluations implemented at the final stage will be fed back into preparations for new projects, this flow of steps is called the Project Cycle.

Targeted Regions

Although ODA Loan is primarily offered to countries in the Asian region given their strong geographical, historical and economic links to Japan, there are also strong needs in countries other regions. JICA has supported a total of 103 wide-ranging countries and regions with ODA Loan.

Contents and Types of ODA Loan

1. Project-Type Loans

1) Project Loans

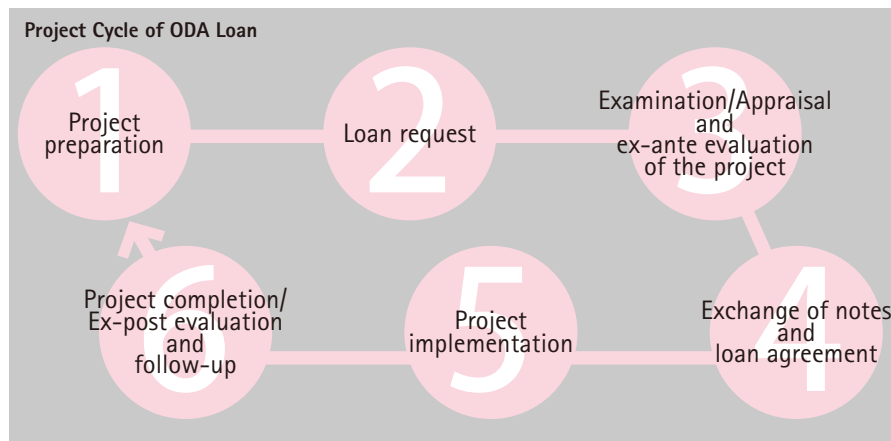
Project Loans, which are predominant among ODA Loan, finance projects such as roads, power plants, irrigation, water supply and sewerage facilities. The loans are used for the procurement of facilities, equipment and services, or for conducting civil and other related works.

2) Engineering Service (E/S) Loans

This type of loan is for engineering services, which are necessary at the survey and planning stages of projects. The services include reviews of feasibility studies, surveys on detailed data on project sites, detailed designs and the preparation of bidding documents. Completion of feasibility studies or their equivalent are prerequisite for this type of loan.

3) Financial Intermediary Loans (Two-Step Loans)

Financial intermediary loans are implemented through the financial institutions of the recipient country based on the policy-oriented financial system of that country. These loans provide funds necessary for the implementation of designated policies, such as the promotion of small and medium-scale enterprises in manufacturing, agriculture and other specified industries and the construction of facilities to improve the living standards of the poor. These loans are known as "two-step loans" because there are two or more steps before the end-beneficiaries receive the funds. Under this type of loan, funds can be provided to a large number of end-beneficiaries in the private sector. Since these loans are implemented through local financial institutions, they also serve to strengthen the operational capabilities of these institutions and to develop the financial sector of recipient countries.



4) Sector Loans

This type of loan is for materials and equipment, services, and consulting required for the implementation of development plans in a specific sector consisting of multiple sub-projects; and also seeks to improve policies and systems in the sector.

2. Non-Project Loans

1) Development Policy Support Loans

This type of loan assists recipient countries seeking to improve policies and implement general system reforms. Unlike conventional structural adjustment loans, these loans support implementation of national strategies or of poverty reduction strategies over longer time

spans. Loan agreements are signed and funds are provided based on confirmation that reform items have been achieved by the country's government. The most common type is one in which proceeds are incorporated into the target country budget (called a "backward looking" type loan). When achievement is confirmed, consultation proceeds with future reform items, in support of reforms based on a long-term framework. Many of these types of loans take the form of co-financing with the World Bank and other multilateral development banks (MDBs).

2) Commodity Loans

This type of loan aims to support both the balance of payments and economic stability of recipient countries. These loans are often used to import commodities such as industrial machinery and raw materials, fertilizer and pesticide, agricultural and other kinds of machinery, which are agreed upon beforehand between the Japanese and recipient governments.

3) Sector Program Loans

This type of loan is a Commodity Loan used to support development policies in prioritized sectors of developing countries. Local currency (counterpart) funds are utilized for public investments for sector-specific development.

Example

Indonesia Development Policy Loans (V)

Cooperation with Multilateral Development Banks for Active Support of Indonesian Economic and Policy Reforms

In Indonesia, where people living on US\$2 or less per day account for 50% of the population, and where new entrants to the labor market increase

by two million every year, economic growth is essential for the creation of new employment. Since 2004, Japan has joined with the World Bank and the Asian Development Bank (ADB) to provide Indonesia with four development policy loans, in support of sustainable policy reforms by that country's government. In March 2009, JICA signed a loan agreement for Development Policy Loans (V).

As part of efforts to improve the investment environment, this program seeks to simplify the

short-term working visa acquisition process, to prevent at the border infringement of intellectual property rights, and to foster investment-related laws and tax law regulations. Based on evaluations of the Indonesian government's policy reform efforts after implementation of earlier development policy loans, the program is expected to further contribute to 1) improvement of Indonesia's investment environment, 2) reform of financial management and reduction of corruption, and 3) poverty reduction.

Example

Kenya Mombasa Port Development Project

Port Project Supports East Africa's International Trade Competitiveness

The port of Mombasa, the largest in East Africa, is Kenya's only international trade port and serves as an export-import center not just for Kenya but also for such inland nations as Uganda, Burundi and Rwanda, which rely on its port functions for their own trade. In response to the year-by-year

rise in Mombasa's cargo handling volume, JICA signed a loan agreement for the Mombasa Port Development Project in November 2007. This agreement provides support for the construction of a new container terminal and for the installation of cranes and other equipment for loading and unloading containers on ships and handling them inside the container terminal. This project seeks to promote smooth cargo distribution for Kenya and the entire East Africa region and is expected to contribute to revitalization of the regional economy.

In addition, HIV/AIDS infection rates in Mombasa exceed the average for Kenya as a whole and there is a need to prevent the spread of HIV/AIDS infection due to an influx of laborers working on construction projects. With this project, through close cooperation with local NGOs, it is intended to hold seminars targeting construction project employees, office workers in project implementation agencies, and local residents as well as to strengthen the capabilities of the medical departments in project implementation agencies.

Grant Aid

Financial Cooperation for Building Living Foundations Related to the Future of Developing Countries



Weather radar installation (Bangladesh)

Implemented as a part of the Japanese government's ODA grants, Grant Aid is financial cooperation with no obligation for repayment by the developing country concerned. Targeted mainly at developing countries with low income levels, this type of aid covers a wide range of cooperation related to the future of developing countries, including development of social and economic infrastructure, such as the construction of hospitals or bridges, etc., education, HIV/AIDS awareness, children's health, and the environment, etc.

In recent years, Grant Aid has not been limited to structural measures, such as facility construction or the provision of equipment, but has also focused on strengthening non-structural measures including technical guidance, the development of human resources, and so forth, resulting in more effective cooperation. For instance, to provide local people with the know-how to enable them to maintain and manage equipment installed through Grant Aid, experts are either dispatched from Japan, or local people are invited to come to Japan for training. There are also cases where the training and research facilities required for Technical Cooperation are built using Grant Aid.

In the past, Grant Aid projects were implemented by the Japanese government (Ministry of Foreign Affairs) and JICA's role was to promote project implementation. Following the establishment of the new JICA (from October 2008 onward), JICA became the responsible organization for some schemes of Grant Aid, such as general Grant Aid projects (see Table at right) that handle all project aspects from conducting preliminary surveys to project implementation, including payment operations and post-project management.

Targeted Sectors and Classifications

Major targets include health and medical care, sanitation, water supply, primary and secondary education, rural

and agricultural development, transportation, electrical power, information communications and other basic human needs. In recent years, these targets have been expanded and diversified to include conflict prevention, peacebuilding, landmine eradication, terror and piracy countermeasures, disaster prevention and post-disaster reconstruction, the environment, etc.

Procedure for the Implementation of Grant Aid

Identification and Formulation of Projects

Regarding project content, JICA conducts preparatory surveys, etc., in consultation with partner country governments, to examine from a variety of perspectives the country's current situation, objectives of project implementation, scale of cooperation, the operation and management structures if implemented and the expected outcome. Based on this information, necessary costs are calculated.

Project Examination and Approval

In regards to the implementation process and results of preparatory surveys, JICA shares all information with the Japanese government, verifies the appropriateness of implementing a project, and then examines the contents of cooperation.

Government officials receive the results of JICA-implemented surveys, conduct necessary reviews and procedures for securing budgets and then submit project proposals to the Cabinet for a final decision on implementation.

Exchange of Notes and Grant Agreements

After approval by the Cabinet, the partner country government and the Japanese government sign documents (Exchange of Notes) summarizing the objectives and content of cooperation for the project.

JICA then signs a "grant agreement" with the partner country government setting the specific conditions for the grant.

Types of Grant Aid implemented by JICA

Scheme name	Summary
General Grant Aid projects	Support for projects implemented for basic human needs, education, etc. (including the construction of hospitals, schools and roads, or the procurement of materials and equipment for public transport vehicles, etc.)
Grant Aid for community empowerment	Support for comprehensive skills development in communities faced with threats to human life or safe living
Grant Aid for disaster prevention and post-disaster reconstruction	Disaster prevention assistance and post-disaster reconstruction assistance
Grant Aid for environment programs	Support for adoption of policies and plans related to climate change policy, etc., and for projects
Grant Aid for poverty reduction strategy assistance	Public financing support for developing countries implementing poverty reduction strategies
Grant Aid for human resources development	Support for training young administrative officials in developing countries
Grant Aid for fisheries	Support for projects promoting the fisheries industry in developing countries
Cultural Grant Aid	Support for equipment procurement and facilities development needed for promotion of culture, etc.
Food Aid	Support for grain purchases in developing countries faced with food shortages
Grant assistance for underprivileged farmers	Support for purchase of agricultural equipment and fertilizers, etc., to support self-help efforts toward food self-sufficiency
Grant Aid for cooperation on counter-terrorism and security enhancement*	Support for strengthening piracy countermeasures and other public security policies

*JICA handles preliminary surveys and implementation promotion only.

Project Implementation

At the project implementation stage following the signing of the Exchange of Notes and Grant Aid agreements, JICA offers advice and implementation guidance to the recipient country and consultants. This advice and guidance is to ensure that facility construction as well as materials and equipment procurement proceed in an appropriate

manner without delays, from the time of the agreement through transfer of the materials and equipment until completion of construction.

Post-Project Management

After cooperation is completed, the developing country's government handles operations and maintenance. However, there will be cases when

equipment breakdowns or other unexpected problems occur. In such circumstances, JICA provides follow-up cooperation in the form of materials and equipment procurement, dispatch of repair teams and emergency repair work, in order to maintain the effectiveness of cooperation.

Example

Mali Senegal South Corridor Development Project

Grant Aid for Three Bridges Contributes to Economic Revitalization and Poverty Reduction

The coastal nation of Senegal and the inland nation of Mali are currently served by two main roads (international transport corridors) running parallel north and south of each other. Of these two roads, the south corridor passes through the southern part of Mali, an area with great agricultural and mining potential, and is expected to play a major role in revitalizing the regional economy

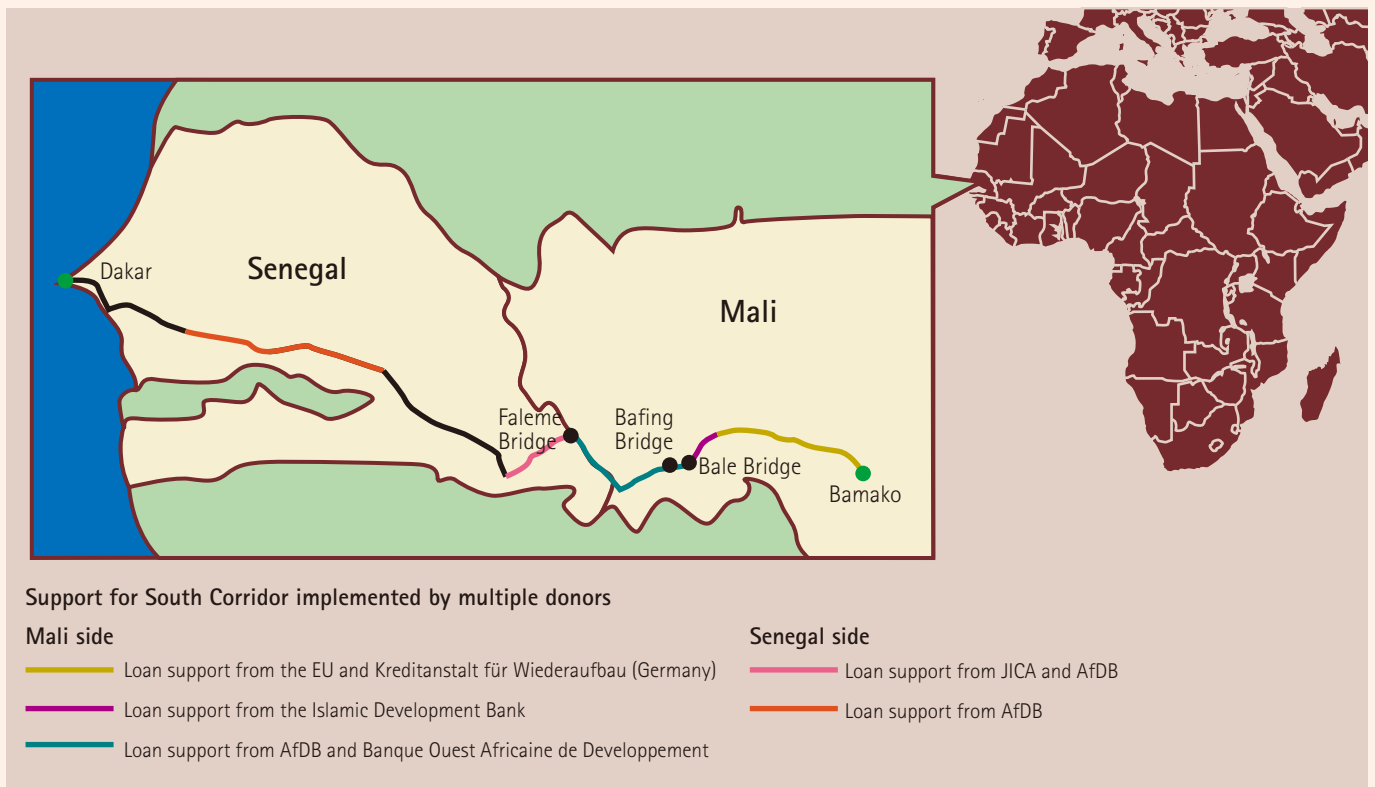
of West Africa and integrating the region. However, the road is at the present time in a poor state of repair, with some sections remaining unpaved or lacking bridges.

On the south corridor, 81.3km out of a total length of 110km is being upgraded on the Senegal side with cooperative financing (EPSA*) from the African Development Bank (AfDB), and Japan is adding Grant Aid (3.808 billion yen) for the construction of three bridges on the corridor (the Bale, Bafing, and Faleme bridges), which are now at the implementation planning stage. When construction is completed, the Bale and Bafing bridges on the Mali side will span about 110 meters and 238 meters, respectively, while the Faleme Bridge at the border crossing between

Senegal and Mali will span about 274 meters.

This project is expected to be of great benefit, enabling the year-round passage of vehicle traffic and reducing the current time spent at each river crossing from the current 20 minutes to just three minutes. As a result, the project is expected to facilitate smooth transportation for all districts along the south corridor, revitalize the economies of both Mali and Senegal, improve poverty reduction efforts and access to social services for residents living along the corridor, contribute to the revitalization of economies in the West Africa region, and promote economic integration.

* EPSA: Enhanced Private Sector Assistance for Africa. A joint initiative for development of the private sector in Africa



Training and Dialogue Programs in Japan

Keystone for the Intellectual Platform



Technical training participants learning waste disposal (JICA Kyushu)

Working to Accumulate and Circulate Knowledge and Experience

Working closely with its overseas offices, Regional Departments and Issues Departments* engaged in the implementation of projects in developing countries, the Department of Training Affairs and Citizen Participation and JICA's domestic offices manage and operate training and dialogue programs, citizen participatory cooperation programs, long-term programs for degrees, donation programs, collaboration with universities, and other ODA activities based in Japan to support developing countries in resolving their development issues.

As shown below in the diagram, JICA's domestic offices work toward the realization of effective and efficient projects by utilizing local resources where knowledge and experience have developed and accumulated through

cooperation activities in ODA projects in developing countries. Through this collaboration process with local resources, each domestic office has specialized in sector specific training and dialogue programs in response to development sector issues in developing countries.

Domestic offices can be thought of as platforms for knowledge accumulation as well as intellectual foundations. The on-site experience and know-how accumulated by JICA's experts, volunteers, study team members, and other human resources assigned to activities in developing countries are all fed back to domestic programs. This experience and know-how are then combined with the activities of major cooperation organizations and groups in the vicinity of JICA's domestic offices and later utilized again in development projects in developing countries.

Training and Dialogue programs in Japan play a key function in the circulation of knowledge and experience accumulated in developing countries and at local resources around JICA's domestic offices to on-site projects in developing countries.

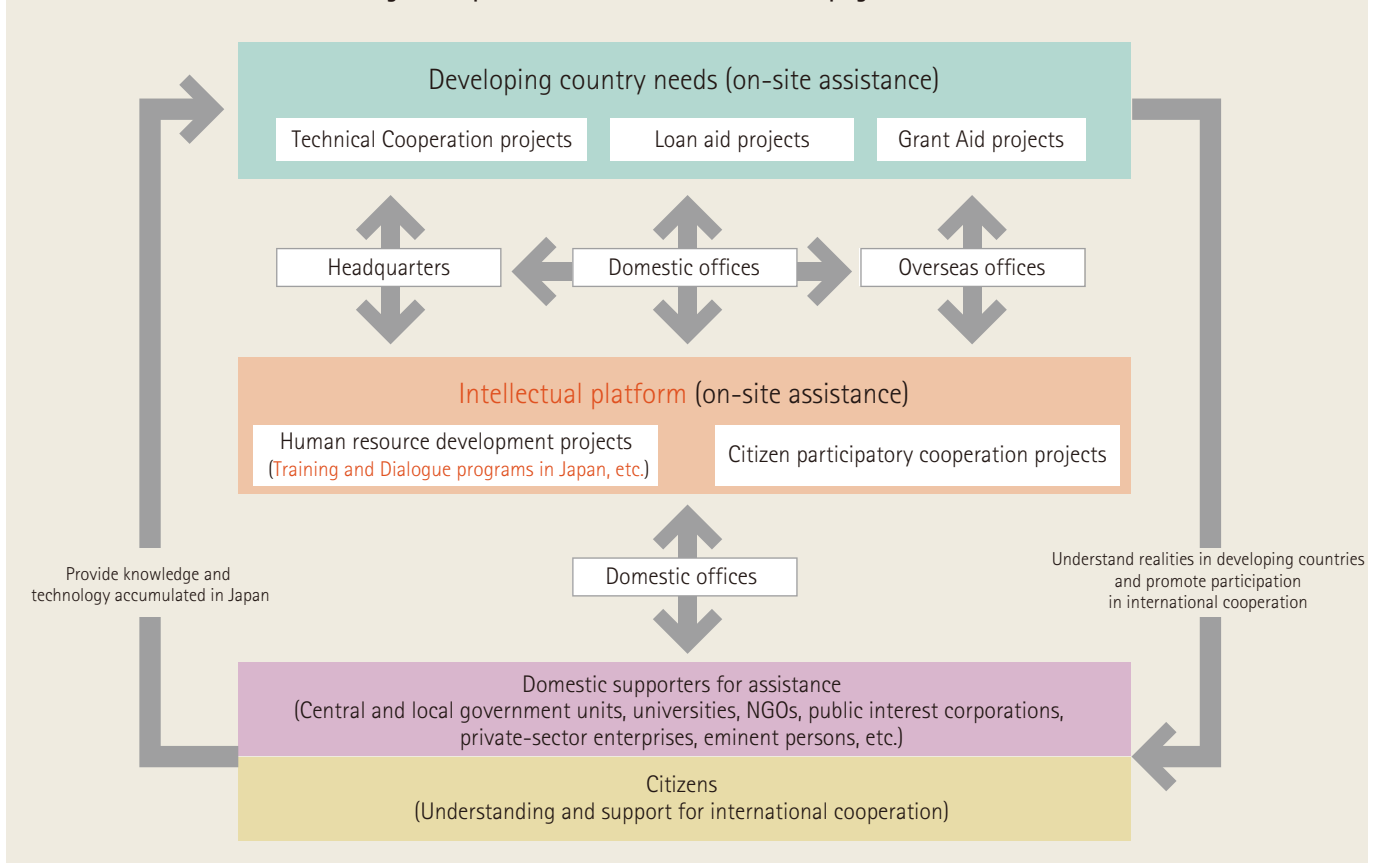
* JICA's organization consists of six Issues Departments: the Economic Infrastructure, Human Development, Industrial and Rural Development, Public Policy and Global Environment departments.

Unique Global Training Programs

Technical Cooperation methods can be divided into the dispatch of personnel from Japan to developing countries for on-site cooperation on the one hand, and inviting people from developing countries to Japan on the other. These are generally referred to as "Training and Dialogue programs."

Knowledge and experience accumulated in Japanese society often means

Accumulation and Circulation of Knowledge and Experience to Provide Assistance to Developing Countries



coming to an understanding through direct experience of things in Japan. This includes organizational know-how and knowledge of underlying social systems. Moreover, a particular characteristic of Training and Dialogue programs is to provide opportunities to participants from developing countries to come into contact with a different culture in order to reassess perspectives based on home-country experiences and realities from the vantage point of a foreign country and to engage in multifaceted analyses of development issues in home countries. Training and Dialogue programs are an important Technical Cooperation channel for utilizing this Japan-generated knowledge to

promote human resource development and to struggle with development issues in developing countries.

JICA has 11 International Centers with training and accommodation facilities across Japan, from Hokkaido to Okinawa. It accepts around 10,000 technical training and dialogue participants every year (10,041 people in total in 2008). While the majority of these participants are affiliated with governments or public organizations, recent years have seen an increase in NGO-affiliated participants. In Japan, Training and Dialogue programs have been secured in virtually every sector within government offices, local government authorities, universities, private-sector enterprises,

public interest corporations, NGOs and other organizations with more than 1,400 programs in 2008. With diversification on such a scale, JICA's Training and Dialogue programs in Japan remain unique and constitute one of the outstanding characteristics of Japan's international cooperation.

As expressed in the descriptive phrase "*wakon-yosai*" ("Japanese spirit, Western skill"), Japan has a wealth of experience in adapting knowledge and technology obtained from abroad and harmonizing it with existing domestic resources. This national experience is unique in the international sphere, and there is much that developing countries will find useful in the process of building nation-states in response to globalization. JICA policy is to place more emphasis on communicating these Japanese peculiarities in Training and Dialogue programs in Japan.

To date, over 200,000 people have participated in Training and Dialogue programs in Japan. These people came to know numerous Japanese people while staying in Japan and returned home with a deeper understanding and familiarity with Japan and a feel for the culture. JICA provides support to the JICA Alumni Association, a group formed by ex-participants themselves in all countries of origin, to foster greater numbers of people with an understanding of Japan in developing countries.



Training participants learn welding techniques. This course helps participants gain internationally recognized welder qualifications (JICA Chubu).



Training participants observe a new type of newborn infant bed designed to simulate the mother's womb (JICA Osaka).



A JOCV provides guidance in rice cultivation (Uganda).

Implementation System: Cooperation Modality

Volunteer Programs

“Work to Change the World, and Yourself”
International Cooperation Led by Citizens

JICA's volunteer programs support activities by citizens who wish to cooperate in economic and social development as well as reconstruction in response to requests from developing regions. Participating volunteers can contribute to these causes while also gaining valuable experience from each of the international goodwill, mutual understanding, and international outlook expansion perspectives.

Volunteer programs that continue to attract the highest praise from the Japanese people for being at the core of international cooperation include: the Japan Overseas Cooperation Volunteer (JOCV), the Senior Volunteer, the *Nikkei* (Japanese descendant) Communities Volunteer, and short-term volunteer programs. Each program is tailored to suit the age and experience levels of its participants.

Overview of Volunteer Programs Together with the Local Community JOCVs

Recruitment campaigns target people aged between 20 and 39, with the areas of cooperation spanning eight sectors and a diverse range of about 120 sub-sectors, including agriculture, forestry and fisheries, fabrication, repair operations, civil engineering, sanitation, education and culture, sports as well as planning and administration. In fiscal 2008, a total of 1,365 people were sent overseas, with a cumulative total to date of 32,742 people dispatched to 87 countries.

In principle, JOCVs stay in developing countries for a period of two years*. The basic stance of JOCV activities is concentrated in the phrase “together with the local community.” Cooperation activities develop as JOCVs live and work together with the communities in the country to which they were sent, speak their language, and promote self-help while fostering mutual understanding.

* In addition to the regular volunteer dispatch period of two years (long-term volunteers), short-term volunteers can be recruited and dispatched for periods of less than one year in response to local requests.

Utilizing Wide-Ranging Technical and Career Experience Senior Volunteers

Recruitment targets people aged between 40 and 69, reaching people who have a strong desire to engage in cooperation activities in various areas, bringing their long years of practical experience in work knowledge, technology, or interests to developing countries.

Areas of cooperation span nine different sectors, including agriculture, forestry and fisheries, energy, health and medical care, and human resources (education, culture, sports, etc.). The number of people sent abroad has grown from 87 people in the first year, fiscal 1999, to 433 people in fiscal 2008. To date, a total of 3,808 people have been dispatched to 62 countries.

The average age of senior volunteers is 58. Many of the people recruited in recent years have been people looking for something more worthwhile to do in their post-retirement “second life.”

Japan Overseas Development Youth Volunteers and Senior Volunteers Contribute to the Development of *Nikkei* Communities

The *Nikkei* Communities Volunteer Program dispatches volunteers to Mexico, Argentina, Bolivia, Brazil, Paraguay and other Latin American countries in response to requests from the *Nikkei* communities in those countries. Since the start of the program in 1985, a total of 968 people have been dispatched overseas as Japan Overseas Development Youth Volunteers, and 358 people as Senior Volunteers.

The Special Program for school teachers*, which was previously open only to JOCVs, has been open to Japan Overseas Development Youth Volunteers for *Nikkei* communities since fiscal 2008. Returned volunteers are also expected to make contributions to multi-cultural coexistence activities, targeting children of *Nikkei* communities now resident in Japan.

* The Special Program for school teachers recruits people who are currently serving as teachers in public schools and schools affiliated with national universities to participate in JICA's volunteer program and study local culture and language while retaining their current employment status.

Volunteer Recruitment, Selection and Training, and Support for Returned Volunteers Recruitment and Selection

Volunteer recruitment takes place twice a year, in spring and autumn (*Nikkei* community volunteers are recruited only once a year, in autumn). Recruitment information is provided on the JICA website as well as at more than 500 explanatory recruitment meetings held every year throughout Japan. Selection criteria include health, technical and linguistic skills, etc., determined by document submissions and personal interviews. In addition, short-term volunteer recruitment and selection takes place six times each year.

Training and Study before Dispatch

Volunteers take training and study courses before being dispatched overseas. These courses focus on language studies in the language of the target host country and also include studies on the principles of international cooperation, on understanding of different cultures, on the history and culture of the host country, and on health management and safety measures.

Support for Returned Volunteers

Currently in Japan, there are high expectations placed on returned volunteers. Returned volunteers are expected



A senior volunteer performs road management.

to engage in local Japanese society, administrative, education or corporate activities, and are thought to possess the attributes necessary to be readily accepted into and pursue dialogue with diverse cultures and societies. Providing proof positive of these expectations, a growing number of local government authorities and boards of education have introduced special employment quotas for returned volunteers. The number of programs had reached 25 (18 boards of education and seven local government authorities) as of the end of March 2009.

JICA has developed a support program for helping volunteers make use of the experience gained in their host countries after returning home to

Japan. Specifically, these include 1) career path training, 2) career path pioneering seminars, 3) career-boosting and step-up support, 4) positioning of career path consultation counselors, 5) provision of career path information, and 6) support for furthering a career in the field of international cooperation.

Moreover, many of JICA's returned volunteers are engaging in efforts to help resolve various problems, which Japanese society now faces, by offering their expertise in child-rearing support, revitalization of Japanese communities and other issues. JICA is now trying to highlight these volunteer programs as important tools not only for their contributions to developing countries, but also for making Japan a better place.



A former JOCV member describes the richness of the region to children who will bear responsibility for the next generation.



A former JOCV member and trainees from Indonesia work to develop Indonesian agriculture and to revitalize Japan's farming communities.

Example

The Special Program for School Teachers Also Open to Japan Overseas Development Youth Volunteers for *Nikkei* Communities

Human Resources Who Can Promote Multicultural Coexistence at Educational Sites

The Special Program for school teachers, which was previously open only to JOCVs, has been offered to Japan Overseas Development Youth Volunteers for *Nikkei* communities since fiscal 2008.

At the present time, there are more than 2.6 million people of Japanese descent living in Central and South America. Since 1996, JICA has been dispatching volunteers to these *Nikkei* communities, to support efforts for their economic and social development. In the intervening period, JICA has also promoted grassroots friendship efforts to foster close, direct contacts with the people of these *Nikkei* communities and to deepen mutual understanding.

Meanwhile, economic globalization has resulted in a sharp increase in the numbers of overseas Japanese residing in Japan. In particular,

children in these communities are attending local schools all over Japan and need teachers who can operate from the perspective of "multicultural coexistence" as well as understand each child's language and way of life. In addition, hands-on experience with education cooperation in developing countries is expected to improve skills in handling teacher issues, as well as guidance skills. Against this backdrop, the decision was taken to establish a program for dispatching currently serving teachers as Japan Overseas Development Youth Volunteers for *Nikkei* communities.

After returning to Japan, these teachers will be expected to apply their overseas education experiences to schools with large numbers of Japanese-descent Brazilians or other non-Japanese nationals and to contribute to local "multicultural coexistence." The program has already gotten off to a good start. The first teachers to have been dispatched on short-term missions to primary schools in Brazil as Japan Overseas Development Youth Volunteers for *Nikkei* communities are saying that they can "now understand just a little what it feels like for these Brazilian children struggling with the Japanese language."



A former Japan Overseas Development Youth Volunteer for *Nikkei* communities teaches Japanese to Japanese-Brazilian children.