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Development Issue**

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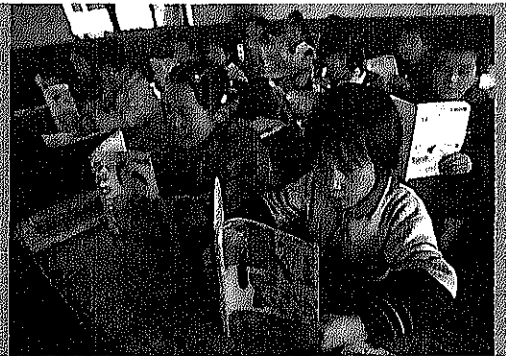
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# Working to Achieve Millennium Development Goals

Challenges shared by the international community toward achieving human development and the eradication of poverty



MDGs set out the provision of education opportunities for all children regardless of gender (China) (Photo by Katsumi Yoshida)

## What are the Millennium Development Goals?

In September 2000, the United Nations Millennium Summit, the largest-ever gathering of world leaders involving 189 countries took place in New York. The Millennium Declaration, which serves as the goals of the international community for the 21st century, was adopted at this meeting. Based on the declaration, eight millennium development goals (MDGs) were compiled as important goals to be shared by the entire international community in order to address the most urgent issues involved with promoting human development. The MDGs cover several areas, including poverty reduction, education, gender, health, and the environment, and consist of 18 targets and 48 indicators, providing clear numerical targets and the deadline of 2015.

In the United Nations General Assembly in September 2005—five years after the Millennium Declaration was adopted—a follow-up summit was held for the mid-term review of the entire declaration including the MDGs. In the outcome document of the summit, the international community announced its strong determination to achieve development goals based on ownership of and partnership among individual countries, actively working to achieve the MDGs.

Figure 3-1 Eight MDGs

- 1 Eradicate extreme poverty and hunger
- 2 Achieve universal primary education
- 3 Promote gender equality and empower women
- 4 Reduce child mortality
- 5 Improve maternal health
- 6 Combat HIV/AIDS, malaria and other diseases
- 7 Ensure environmental sustainability
- 8 Develop a global partnership for development

## JICA's Approach to the Millennium Development Goals

### Human Security—Achieving the MDGs by Focusing on People

In order to further support developing countries in achieving the MDGs, JICA emphasizes the core principle of "human security" with a focus on people. Under this concept of human security, JICA expects that efforts made by developing countries and the outcomes of their achievements in relation to the MDGs will be sustained by means of their ownership through capacity development (developing countries strengthening their own capacity to solve problems in development). With emphasis on the importance of infrastructure as the base to support achievement of the MDGs, JICA strives to contribute to the MDGs by supporting infrastructure development that leads to poverty reduction.

#### 1. Human Security and the MDGs

The MDGs involve development and poverty reduction in the objectives of the Millennium Declaration. Other objectives, such as "peace, security, and disarmament," "human rights, democra-

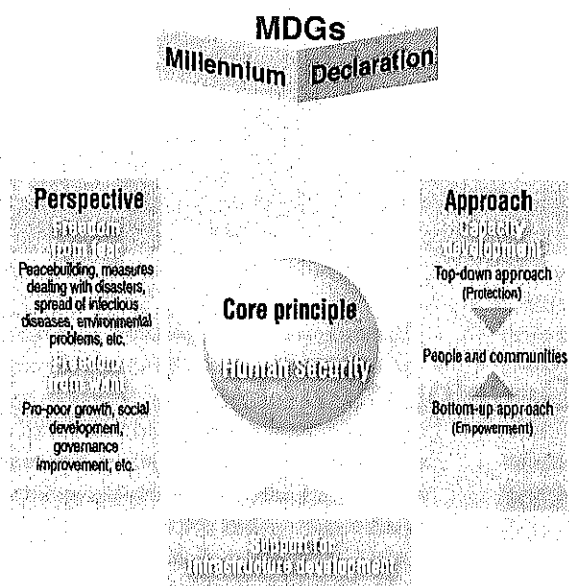
cy, and good governance," "protecting the vulnerable," etc., are closely related to one another, and the outcomes of individual efforts are not sustainable unless they are tackled comprehensively.

JICA focuses on people and understands that human security, which pays attention to whole threats that people face, is vital for realizing the principle of the Millennium Declaration. JICA incorporates the perspective of human security into all the programs in order to improve their quality, and at the same time, from the perspective of human security, comprehensively supports peacebuilding processes including reconstruction, along with disaster and conflict prevention for the purpose of supporting developing countries in achieving the MDGs.

#### 2. Capacity Development and the MDGs

Japan has gained knowledge and systems from developed countries in the process of modernization and has applied them to building its own society and institutions. Based on such expe-

**Figure 3-2** JICA's Approach to the MDGs



The MDGs are the specific objectives of the development agenda outlined in the Millennium Declaration.

JICA is working toward achieving the MDGs and sustaining the outcomes of this achievement by providing assistance based on the principle of "human security." This principle has two aspects:

- (1) Perspective: addressing the need for not only "freedom from want" but also "freedom from fear."
- (2) Approach: applying both top-down and bottom-up approaches to help developing countries enhance their capacities for dealing with their own problems ("capacity development"). Underpinning these efforts is our cooperation in the area of infrastructure development.

rience, JICA supports human development, organizational strengthening, and institution-building by focusing on the process of capacity development, which empowers people in developing countries to solve their own problems.

By the definition of capacity development, capacity is regarded as the problem-solving ability of a developing country. Capacity is not brought in from outside, but rather is something a country develops itself. Donors in support of capacity development are required to be catalysts that indirectly support endogenous processes so that developing countries can develop their own problem-solving capacities, and not just act as providers of technology, equipment, and capital.

Acknowledging that such a concept of capacity development represents an ideal process of achieving MDGs (Research "Toward Capacity Development of Developing Countries Based on their Ownership," 2006), JICA supports developing countries in achieving the MDGs so that the outcomes of the achievements can be sustained.

### 3. Infrastructure Supporting the Achievement of the MDGs

Following World War II, Japan attained economic growth by developing its infrastructure, productive sectors, and industries. Based on this experience, Japan has provided assistance to developing countries, mainly in Asia, with an emphasis on economic and social infrastructure, thereby greatly contributing to their current development. However, it has been revealed that the benefits of infrastructure development do not always reach the people in need and that infrastructure development has occasionally harmed their living situations and natural environments. With this in mind, JICA redefined infrastructure as the basis necessary for achieving the development goals—including poverty reduction, the MDGs, and economic growth—and eventually realizing the potential of the people.

JICA is focusing more on people than it has in the past based on the "human security" concept, and is striving to contribute to achieving the MDGs by assisting in infrastructure development that will provide the basis for people's livelihood, support the economic growth of the nation and regions, and help reduce poverty.

**Table 3-3** Proportion of MDGs-related Fields in JICA Projects

MDGs-related fields	Portion of total operating cost (fiscal 2005)
Poverty reduction (Goal 1)	30%
Basic education (Goal 2)	4%
Gender equality (Goal 3)	14%
Maternal and child health, reproductive health (Goals 4 and 5)	5%
Infectious disease control (Goal 6)	17%
Environment (Goal 7)	16%
Finance, trading, vocational training, information communication (Goal 8)	13%

Note: Some projects are counted more than once in the summation because they encompass several goals. See Figure 3-1 for Goals 1 to 8

# Social Development

Governance/Gender Support/Urban and Regional Development/Peacebuilding, Reconstruction Assistance/Transportation/ICT/Japan Center/JICA-Net Program



Construction site of a water supply facility: Development of basic infrastructure is urgently required in Sudan. (Emergency Study on the Planning and Support for Basic Physical and Social Infrastructure in Juba Town and the Surrounding Areas)

## Overview of the Social Development Field

In many developing countries, basic systems and the framework of society, such as administrative systems and basic infrastructure, are underdeveloped or incomplete, hindering development. In the context of capacity development, which forms the core of JICA's activities, this is deemed to be capacity issues of society.

JICA provides cooperation in the social development field as a program that aims for the capacity development of society. Establishment of appropriate social systems and frameworks under adequate governance, and building networks of transport

and traffic infrastructure and information communications based on proper regional development plans are important to achieve the capacity development of a society. In recent years, demand has grown for cooperation in the field of post-conflict or post-disaster reconstruction and peacebuilding, and it is necessary to improve facilities, systems, and networks comprehensively by viewing society in a cross-cutting manner.

In this section, overview, priority issues, and activities for each social development field are introduced.

## Governance

### Overview

Since the 1990s governance has been a focus of attention as something that can have an impact on the effectiveness of development and assistance. Governance is the concept that pays attention not only to the efforts made by the government and administration, but also to the entire framework of social management, including the general public and the private sector. Governance includes fostering civil society organizations and the promotion of participation of the general public in the policy process, in addition to such themes as reform of the public sector and decentralization, as well as privatization.

In the sector of governance, support is provided to establish and improve basic national systems and develop and improve a framework or a system for the provision of public goods and services in line with public needs. The history of support for governance is young in the world and many donors are still exploring effective methods of assistance.

### JICA's Efforts

In order to improve governance in developing countries, JICA

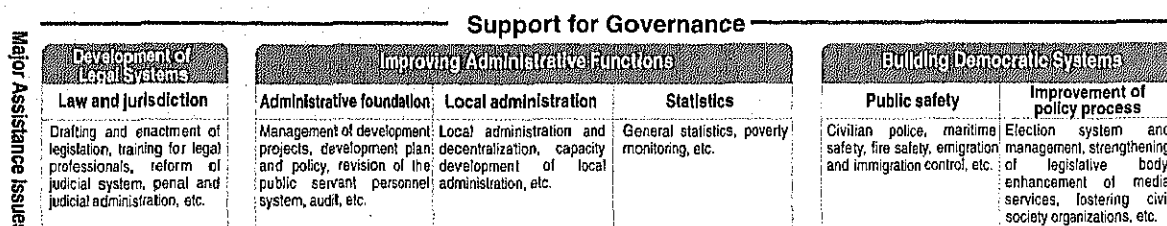
implements assistance mainly for building institutions and organizations and developing human resources through technical cooperation. Since the initiative of the developing country is important in this sector, instead of introducing specific systems and policies into developing countries as they are, possible options are presented through dialogue or communication to help the partner country make a choice and establish and improve the system on its own.

Specifically JICA's assistance in the governance sector covers the following three categories: development of legal systems, improving administrative functions, and building democratic systems (see Figure 3-4).

### Development of Legal Systems

Support for developing legal systems is provided in four areas: (1) development of laws and regulations (development of legislation); (2) development of legal organizations (organizational development); (3) development of legal professionals (development of human resources); and (4) legal empowerment of the society (improvement of access of people to legal and judi-

Figure 3-4 Assistance Areas in Governance



cial systems). Assistance is provided mainly to the countries in transition to market economies, with an aim to develop social infrastructure as a basis for establishing the rule of law. For example, support for the drafting basic laws such as civil codes and

related laws and enactment of legislation and nurturing legal professionals (judges, prosecutors, lawyers) are provided in Viet Nam and Cambodia. Examples of support for legal empowerment of the society are support for enhancing the settlement system in

**The Project for Cooperation in the Legal and Judicial Field in Viet Nam** **CASE STUDY**

Viet Nam has been pushing forward a market economy policy called "Doimoi" since the 1980s and Japan has thereby been supporting the development of civil and commercial laws and regulations and the development of legal professionals for more than 10 years.

Japan has experience in adopting legal systems from Europe after the Meiji Restoration and from the US after World War II and adapting them to its own society and culture. The project features support in the form of joint research between Viet Nam and Japan based on the experience of Japan.

Some of the achievements of the support thus far include the enactment of a Revised Civil Code in May 2005 and the enactment of a Civil Procedure Code in May 2004. During the process of drafting the laws and their enactment, Japanese legal scholars and legal professionals offered technical guidance, which has been highly acclaimed by Viet Nam.

Traditionally, judges, persecutors, and lawyers were separately trained in Viet Nam, but the government of Viet Nam decided to set up an institution to comprehensively train and develop profession-

als, modeled on Japan's legal training system in Japan. In response, JICA provided support for developing curricula and teaching materials for comprehensive training. This effort is for human resources development who will be engaged in legal services in the future.

Starting in April 2007, judicial practices and law enforcement duties have been monitored in a pilot district in the suburb of Hanoi, aiming for appropriate legal practices including trials, in accordance with the laws and regulations enforced. Based on the monitoring result, JICA will undertake various activities in order to improve surveillance and support systems for central judicial institutions.



Workshop held to support drafting of the national redress law

**Front Line Honduras**

**The Project for Capacity Development in the Western Region**

**Aiming for Local Administration that Fights Poverty**

**Small and vulnerable administrative offices in municipality**

Honduras is one of the poorest countries in Latin America. There are 298 municipalities throughout the country, but most of them are staffed only with several officers, including the mayor. Although the system of administrative offices is small and vulnerable, decentralization has progressed and movements have taken place to delegate most of the administrative services, such as health and medical care and education, to municipal governments. However, most of the administrative offices are not equipped with the capacity to develop and implement development plans, though a framework of allocating development budget to municipalities is in place. Accordingly, in 2006 JICA started a project to develop the capacity of local administrators in the Western Region, where poor municipalities are particularly concentrated in Honduras.

**Consolidate development administration model in municipalities**

The purpose of the project is to con-

solidate a development administration model in municipalities. In this project, a survey was conducted to grasp the living conditions and the progress of development (targeting about 9,000 households in the target municipalities). JICA assisted the municipalities with planning, implementing, and evaluating community participatory development projects based on the results of the survey through guidance and training, as well as organizing experiences in implementing development. At the same time, JICA intends to contribute to poverty reduction in local areas through dissemination of this development model.



Construction site of a primary school, which is assisted by the project with the participation of the community

The survey that was conducted to understand the situations from the second half of 2006 to the first half of 2007 gained the participation and cooperation of 272 leaders from the target municipalities. Also, women's participation and cooperation were promoted to incorporate the gender perspective, and as a result, one-third of the participating leaders were women (teachers and nurses, etc.). This survey allowed residents to objectively understand their own development conditions and to nurture trusting relationships by working with municipal stakeholders. While developing the capacity of administrative organizations and local human resources, development projects are proceeding smoothly, boosting the expectations from others. While decentralization is progressing at a sluggish rate, the progress of this project is drawing much interest from other donor countries and agencies that are planning to input a considerable amount of funds to support the central government, municipal association, and decentralization of Honduras.

(JICA Honduras Office)

Indonesia and strengthening the legal aid system through supporting the Law Society in Mongolia.

### **Improving Administrative Functions**

Support for improving administrative functions focuses on strengthening the administrative foundation to appropriately allocate and manage national budget and personnel; enhancement of local administrative functions to effectively provide public goods and services; improving transparency and the promotion of citizens' participation.

As for the support related to strengthening administrative foundation, support for improving statistics capacity of the government is being implemented in Cambodia, and support for improving the public servant personnel system associated with administrative reform is being undertaken in Viet Nam.

With respect to enhancement of local administration, support is provided to local administration bodies in Honduras and Tanzania for developing human resources, organizations, and systems to deliver public goods and services in line with the needs of local communities. Also, in support for improving transparen-

cy and promotion of citizens' participation, JICA assists with the promotion of collaboration between administration and communities in Indonesia and strengthening anti-corruption measures in Thailand.

### **Building Democratic Systems**

JICA's support for building democratic systems focuses not on reforming the political system itself, but on assisting in building a system that allows for the involvement of the general public in the policy process and can win their trust.

Specifically, support is provided in two areas: (1) support for ensuring safety of the people (public safety); and (2) support for building a system and institution in which the people can participate in the policy process as a government open to the public (support for democratization). In the area of public safety, support is provided to the police department in Indonesia to develop a model of civilian police fully trusted by the public. An example of support for democratization is the media support for a constituent assembly in Nepal.

## **Gender Support**

From the viewpoint of reviewing social and economic structures, systems, and policies as the source of gender disparity, JICA provides gender support. In Afghanistan where many years of conflict have ended, JICA is implementing support for the economic empowerment of women through community development with the counterpart, the Ministry of Women's Affairs. This is an effort to achieve independence and improve the livelihoods of women whose opportunities for education and employment were lost under the Taliban regime. In Cambodia, JICA is assisting staff

members of the Ministry of Women with various skills from data collection and analysis in gender statistics to policy making, implementation, and evaluation. This aims to strengthen the functions of the Ministry of Women for making policy recommendations to and coordinating with other ministries and agencies and encourage the government to incorporate a gender perspective into policies, development plans, and projects, and give due consideration to the perspective.

## **Urban and Regional Development**

### **Overview**

The world's population is estimated to have exceeded 6.5 billion in 2006, of which more than 50%, or 3.3 billion people, reside in urban areas. Population growth and urbanization are notable particularly in developing countries. Nearly 40% of urban populations were concentrated in the developing world in 1950, but the percentage is estimated to jump to 80% in 2030, indicating future progress of rapid urbanization in developing countries.

The advancement of urbanization brings about economic development through scale merit or synergic effect on the one hand, but on the other hand, it causes deterioration in the living environment, heavy traffic, the deterioration of public security, and the emergence of slums (a settlement of homes where people with low incomes live in a poor environment). The concern is that these problems may slow down economic and industrial development at the regional and national level.

Ensuring sustainability of projects is important in order to push forward the development of urban or specific local areas. Though community participation in development, appropriate local administrative systems, and improvement in administrative capacity of local governments are all necessary, appropriate development doesn't take place in developing countries due to a lack

of sustainability in many cases.

The problems that occur in urban and regional development are an inter-affected complex of various phenomena and solving these problems one by one has limitations. It is necessary to take a comprehensive approach incorporating capacity development of local administration bodies in addressing development issues from a medium- and long-term perspective.

### **JICA's Efforts**

JICA contributes to economic growth and improvement in living standards of a developing country through the development of urban and specific areas of the country.

In the sector of urban and regional development, in order to proceed with economic and social development focused on those who live in urban and specific areas, JICA implements technical cooperation related to the formulation of urban development master plans and a comprehensive regional development plan, development of local administrative systems, and human resources development, by designating the following five priority issues.

- a. Comprehensive and exhaustive approach to various issues in urban and specific areas
- b. Emphasis on capacity development of the entire society toward

- urban and regional development, including administrative agencies, regional social organizations, and communities
- c. Development of local administrative systems appropriate to national conditions
- d. Balanced regional growth and correction of disparities among areas, reflecting the perspective of local residents
- e. Balanced development with a minimum negative impact from urban development

More specifically, urban development master plans and comprehensive regional development plans include analysis of issues and tasks of urban and regional areas, creating medium- and long-term visions, formulation of development policies, sector-specific plans, and recommendations for concrete action plans to realize them. Through the process of formulating a master plan, development of human resources and capacity development of organizations in charge of formulation of urban development and regional development plans take place. Furthermore, JICA is

working to disseminate planning skills involving collaboration between the government and communities, in order to incorporate the perspective of communities into the development plans that traditionally have been formulated mainly by the administration.

In addition, JICA is involved in developing a framework for local and central governments and local financial systems suitable for national situations, as well as capacity development for local administrative bodies including nurturing administrators. Capacity development of administration is sought to carry out efficient and effective projects from the stages of planning to implementation.

JICA also implements cooperation for capacity development of organizations that conduct research and development of new technologies related to housing development and for developing highly accurate geographic data (topographic map) which is the basis for development planning, in order to improve living environment of urban residents, including the poverty group in urban areas.

## Peacebuilding and Reconstruction Assistance

### Overview

Japan's ODA Charter adopted in 2003 identifies peacebuilding as a new priority issue. The Medium-term Policy on ODA announced thereby in 2005 defines the objective of peacebuilding

as to prevent occurrence and recurrence of conflicts, alleviate various difficulties that people face during and immediately after conflicts, and subsequently achieve long-term stable development. Peacebuilding requires assistance in accordance with the stage;

## Front Line Nepal Support for Constituent Assembly Election

### Realizing Democratic Elections

#### Multiple support constituting human resources development and provision of materials and equipment

On November 21, 2006, a comprehensive peace accord, including permanent cease-fire arrangements, was signed between the government and Maoist rebels, ending an 11-year civil war in Nepal. The comprehensive peace accord guaranteed an election of members to the Constituent Assembly. Since no democratic elections had been held in Nepal for more than 10 years and a combination of proportional representation and prefectural constituencies was being attempted for the first time in the country, the government of Nepal requested support from other countries and development organizations.

A free and fair election for the Constituent Assembly is important in the process of democratization in Nepal. In response to a request from the Nepali government, JICA is multi-laterally supporting the election board with human resources development and provision of materials and equipment.

#### Training and study tours in Japan

JICA provided computers and pro-

jectors used for training in registration work for officers of the election board, and invited the operation officer of the election board to Japan for training. The training participants received lectures on elections and the role of the government, as well as election systems, and had an opportunity to see the actual setting up of voting stations and vote-counting work during the Aichi Governor's Election. After returning to Nepal, they compiled reports on the training and made recommendations to the election board about the method of election and election management.

Some of the factors that caused insurgency in Nepal include regional disparities and social expulsion of caste groups, ethnic groups, and women. To incorporate the opinions of these people into the decision-making process is an issue for Nepal in the process of nation-building. JICA, therefore, invited specialists from both Japan and Nepal as lecturers and co-hosted seminars on elections and democracy with the election board. Various people from the media and civil organizations, as well as academic scholars, participated in the seminar and

actively exchanged opinions.

Japanese experts, dispatched to the western region as members of the UN election support team, are working as advisors on voter education, too. In addition, JICA has provided equipment such as recorders and assisted the national radio station in producing programs related to voter education.

Although there are many problems to be resolved before the Constituent Assembly election takes place, the Nepali government highly appreciates the package support that is being implemented jointly by the Japanese government (Ministry of Foreign Affairs) and JICA in the combinations of provision of equipment and human resources development.

(JICA Nepal Office)



Discussions were held about the significance of elections in new nation-building at the seminar hosted by JICA.

prevention of occurrence and recurrence of conflicts, reconstruction immediately after conflicts, and medium- and long-term reconstruction and development. In particular, immediately after conflicts, when central and local governments often have difficulties in functioning properly, the peace and stability of a society can be realized by achieving outcomes that allow the people to feel peace (dividend of peace) with speed and flexibility while dealing with changes in situations.

Besides conflicts, support for reconstruction from damage caused by large-scale disasters such as earthquakes is also identified as a priority issue in the ODA Charter in an effort to address global issues.

### JICA's Efforts

Peacebuilding efforts take place in a series of processes from emergency of tension, outbreak of conflict, cease fire, and reconstruction based on peace accords to subsequent development, in three areas: military framework (such as cease-fire monitoring groups), political framework (such as preventive diplomacy and settlement), and socioeconomic framework (such as humanitarian relief and development assistance). JICA, based on the Medium-term Plan on ODA mentioned earlier, conducts peacebuilding assistance, mainly focusing on development assistance following peace accords (see p.15-17). Particular importance is placed on the following four points.

#### 1) Support for reconstruction of social capital

By rehabilitating and reconstructing war-torn basic infrastructures (roads, bridges, water supply, health and medical care, and educational facilities), JICA secures the basic conditions of reconstruction projects and encourages people to feel the dividend of peace as soon as possible in implementing a project.

#### 2) Support for restoration of economic activities

Support for improving agricultural productivity and vocational training is provided.

#### 3) Support for recovery of governing function of the government

Support for conducting elections and the development of

democratic administrative systems is provided.

#### 4) Support contributing to increased public security

Skills training for social reintegration of demobilized soldiers and support for democratic police are provided.

In conducting these projects, JICA takes an approach with the following five points in mind, in order to incorporate particularly the perspective of human security.

- a. Contributing to rapid and seamless implementation of human-centered assistance that will definitely reach people in need
- b. Focusing on the socially vulnerable, thus contributing to their own efforts for capacity development
- c. Providing support for the community and people, as well as for the government
- d. Providing support not only for a conflict-ridden country, but also for neighboring countries and regions where necessary, in view of the conditions of the people in those countries and regions
- e. Taking note of support which helps prevent occurrence or recurrence of conflicts, instead of promoting the occurrence or recurrence of conflicts

In particular, when considering the prevention of occurrence or recurrence of conflicts, the peacebuilding needs and impact assessment (PNA) is performed to analyze the factors of the conflicts before full-fledged implementation of a project, in an effort to understand specific points for consideration.

At the same time, in response to large-scale disasters caused by earthquakes or tsunami, emergency reconstruction plans for affected cities and regions are formulated and support is given in close cooperation with Japan's financial cooperation. In the area of disaster prevention, Japan has the world's leading technologies, experience, and human resources, and projects are being implemented utilizing these resources, which has been widely recognized by the parties concerned.

## Transportation

### Overview

To support sustainable development and growth in developing countries, it is essential to develop transportation infrastructure that serves to transport goods and people (roads, railways, ports, airports, etc.). The demand for improved transportation infrastructure remains substantial in developing countries. The need for maintenance, management, repair and modernization of aging facilities is expected to increase rapidly.

However, development of a transportation infrastructure has the potential to cause environmental problems and it is therefore necessary to consider the impact on natural environment and social development and countermeasures to deal with problems.

In addition, transportation infrastructure development requires a substantial amount of funds and securing financial resources for that is a big issue. It is difficult to develop all the necessary infrastructure with limited public funds. It is becoming important, therefore, to consider securing various financial resources, for example, introducing private funds, in providing transportation services

expected by users sustainably and efficiently.

### JICA's Efforts

JICA's cooperation in the sector of transportation aims mainly to vitalize economic and social activities, which leads to improvements in income and living environments of the people by transporting people and goods swiftly, smoothly, and safely.

Through the development of a transportation infrastructure and related human resources in developing countries, credibility of infrastructure and safety of people's living situations are improved and smooth transportation and development of the living environment are promoted, contributing to economic growth and improvement in the standard of the living environment at the same time. In providing cooperation, infrastructure focusing on users and people in the vicinity is developed, and community participation and cooperation with NGOs are actively promoted.

Considering transportation infrastructure as the infrastructure that contributes to the happiness and convenience of the people,



## Feasibility Study on the Development of High-Axle Load Multimodal Dedicated Freight Corridors with Computerized Control for Delhi-Mumbai and Delhi-Howrah Rail Routes in India — CASE STUDY

The Feasibility Study on the Development of High-Axle Load Multimodal Dedicated Freight Corridors with Computerized Control for Delhi-Mumbai and Delhi-Howrah Rail Routes is an 18-month project launched in May 2006 based on the Eight-fold Initiative for Strengthening Japan-India Global Partnership signed between the Prime Ministers of two countries in April 2005 (see p.46).

India faces the issue of a delay in its manufacturing industry and agriculture, while experiencing remarkable economic growth. In 2005, the government of India, which works hard on infrastructure development, announced a plan to develop high-speed railways connecting four major cities in the country, in order to correct the distortion in growth. Among the railways, JICA is implementing cooperation, including feasibility studies and training, for the East-West corridor (Mumbai-Delhi-Kolkata), which stretches for more than 2800km. While reviewing the high-speed freight railways that are being designed by the Ministry of Rail Transportation of India, JICA is making recommendations for improving not only the railway systems but also ports and distribution systems by introducing Japan's technologies with an emphasis on environmental and social considerations and is conducting studies aimed for distribu-

tion reform in India.

When this plan is substantiated, distribution issues within the country will be resolved, and at the same time, smooth distribution of goods beyond national borders including neighboring countries will be promoted in the future. It is expected to play a significant role not only in the growth of a regional economic zone, but also for peace and security.



Unloading containers onto trucks: Discussions will be undertaken about the optimal freight handling system at cargo terminals.

JICA carries out the following technical cooperation covering a wide range of activities, in addition to traditional cooperation for hardware such as roads.

- a. Support for improving capacity of the transport administration (capacity development in transportation)
- b. Support contributing to globalization and regionalization with the aim of promoting the globalized transport of goods and people and development of regional economic zone (international transportation)
- c. Support for ensuring fair mobility of people and harmonious land development (national transportation)
- d. Support for sustainable growth of urban areas and improvements in the living standard environment (urban transportation)
- e. Support for developing the basic transportation infrastructure with the aim of improving living standards in local areas (local transportation)

In order to solve today's increasingly diversified and complicated issues related to transportation, it is considered effective to pay attention to the characteristics of transportation and take appropriate measures by categorizing them into the five groups as mentioned above, instead of just examining transportation means.

### Cross-border Transportation Infrastructure

Though cross-border transportation infrastructure can be

simply interpreted as trans-national transportation system, JICA instead interprets it in a broader meaning, as a transportation system that spreads across national borders and facilitates regionalization. In the context of cross-border transportation infrastructure, not only infrastructure development along national borders, but also development of software, such as formation of regional network, safe transportation systems, and the development of legal framework for fair economic activities are considered.

Advancement of cross-border transportation is expected to contribute to economic vitalization of less-developed countries and regions, correction of regional disparities, regionally coordinated development, and poverty reduction.

As cross-border transport advances, the possibility of investment from the region with a strong economy to that with a small economy increases. On the other hand, there emerges a risk of increased economic disparity among regions, with benefits disproportionately vested to the region with the strong economy. An increase in the volume of traffic across national borders may have a negative impact, such as the spread of crime and infectious diseases like HIV/AIDS. Therefore, when providing support for cross-border transportation infrastructure, it is considered necessary to pay full consideration to the negative impacts entailed by the expansion.

## ICT (Information and Communication Technology)

### ICT and Socioeconomic Development

Information and communication technology (ICT) is applied in various fields such as administration, education, and medical care, contributing to the improvement of socioeconomic development. However these benefits are not available to many people in developing countries, generating a digital divide.

IT Strategy Headquarters was installed in the Cabinet Office in response to the Okinawa Charter on Global Information Society adopted at the Kyushu-Okinawa Summit in July 2000. Cooperation for bridge digital divide is promoted in developing countries mainly in Asia as an international policy.

Feature

Part 1

Part 2

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Chapter 1 Approach to Development Issues  
2 Social Development

## JICA's Development Strategies

JICA identified five development strategy goals according to Japan's policies for bridging digital divide.

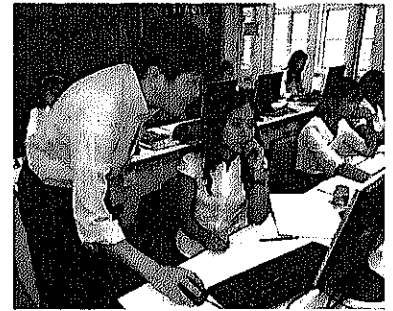
The first goal is capacity building in the area of ICT policy formulation. JICA dispatches advisors for making national ICT strategies, telecommunication policy, ICT industry development policy, etc.

The second is human resources development in the ICT sector. To spread ICT to all the citizens, JICA cooperates in training technicians, policymakers, etc. The human development project for the purpose of improving capacity of ministries and agencies, training centers and universities is at the heart of cooperation. Human resource development has gained importance in technical cooperation in the ICT sector.

The third is development of a communications infrastructure. In order to develop the backbone communication network and the rural communication infrastructure, JICA assists in the formulation of a master plan of the communication network and supports strengthening the maintenance and operation system.

The fourth is improvement of efficiency and benefits through

ICT use in various sectors. JICA supports the introduction of ICT in administration and utilizes ICT in cooperation in the sectors such as education, medical care, commerce, thus leading to improved efficiency and effectiveness of projects.



Japanese expert giving practical guidance (The Project on ICT Human Resource Development at ICT Training Institute in Myanmar)

The fifth is the use of ICT to improve aid efficiency and effectiveness. The JICA-Net (distance technical cooperation) Program corresponds to this.

JICA continues to implement various cooperation to connect ICT to effective socioeconomic development by selecting appropriate ICT in line with the actual situation of a country and region while considering the initiative of the partner country.

## Japan Center

Japan Center was envisaged as a base to support human development responding to the transition to market economies in East and Central Asia and the Indochina area. It also serves as a place for exchange and mutual understanding between people of the partner country and Japan. The Japan Center is wide open to the general public by introducing each country's society and culture, as well as providing Japanese language courses.

JICA commenced Japan Center projects in September 2000. At the moment nine centers in eight countries are in place and operating (Hanoi and Ho Chi Minh in Viet Nam, Laos, Cambodia, Mongolia, Kazakhstan, Uzbekistan, Kyrgyzstan, and Ukraine). Business program, Japanese language courses, and mutual understanding promotion program form the core of the basic activities at all the centers.

In these countries, it is an urgent matter to foster human resources who support the real economy and the business program is expected to offer necessary knowledge and know-how for such human development in the private sector. Lectures regarding the Japanese style of management, and practical contents including corporate diagnosis, have been praised greatly by local small and medium-sized enterprises and economic organizations and as a result, there has been a case where former students formed "Kaizen Association" to spread the Japanese style of management

by themselves to a wide area. The Japanese language course leads to broad opportunities for jobs and studying in Japan. Through support for local Japanese language teachers, the center also plays a role as a base for Japanese language education in each country. In the mutual understanding promotion program, provision of information on current situations and study programs in Japan, etc., an exchange of opinions from students of both countries are conducted by hosting study tours in the country and using the JICA-Net.

JICA is working to generate synergy effects by combining these activities in different areas (Business Japanese Course, Japanese course for prospective students who are coming to study in Japan, and preliminary orientation before coming to Japan, etc.).

Some centers have been operating as long as seven years, and it is fair to say that their function as a contact point for Japan in the country has been consolidated. In order to further strengthen this function, it is increasingly necessary to proceed with projects in concerted cooperation and partnership among all levels of Japanese society, including administrative agencies, local governments, educational institutions such as universities, and private corporations in Japan.

## JICA-Net Program

In the JICA-Net Program launched following the G8 Kyushu-Okinawa Summit 2000, distance technical cooperation using TV conference systems is implemented and promoted, and multimedia contents for improving the quality of JICA's projects are developed. This new type of technical cooperation utilizes ICT to complement JICA's projects by overcoming constraints in terms of time and distance and to improve aid effectiveness and efficiency. In fiscal 2006, 577 distance lectures and seminars, which

constitute a central part of cooperation for remote technical cooperation, were conducted and cumulatively 129 multimedia contents had been developed by the end of fiscal 2006, indicating the consolidation of JICA-Net Program as part of JICA's projects. The number of network centers for TV conferences expanded to 90 from the initial number of six. The JICA-Net Program is required to strategically support country- and region-specific programs in pursuit of higher effectiveness for the future.

# Human Development

Basic Education/Higher Education, Technical and Vocational Education and Training/Health/Social Security



Project staff and a Japanese expert explaining maternal and child health handbook at the event site of Free Diagnosis Day (Palestine)

## Overview of the Human Development Field

In the human development field, JICA provides technical cooperation in three sectors: (1) education (basic education, higher education, technical and vocational education and training), (2) social security (social insurance and welfare, support for persons with disabilities, labor and employment), and (3) health (infectious disease control, maternal and child health, reproductive health, health systems, human resource development for health). These are all fundamental and important issues in human life closely related to the concept of human security. They are also related to five\* of the eight Millennium Development Goals (MDGs) that were adopted by the UN as being important for the future prosperity of humankind.

In the basic education area, JICA works to increase the enrollment rate of students by encouraging community participation and increase the quality of education by improving teaching methods, textbooks, teaching materials, etc., as well as cooperating in educational administration. In non-formal education (educational activities organized outside of school education systems), literacy education, which is important from the perspective of human security, is also supported.

Higher education, technical and vocational education and training are essential for economic development, and JICA supports human development at universities and research centers to respond to the needs of the industrial world. In particular, the importance of science and technology such as information technology (IT) in developing countries has been reaffirmed recently. Under such circumstances, these countries also have expectations for Japan to support higher education organizations that are key players in development and extension of science and technology.

In the social security sector, support for medical security and pension policy, assistance related to social welfare policy targeting elderly people and children, assistance enabling persons with disabilities to participate in social activities, and assistance related to labor and employment problems are provided in line with needs of each country based on Japan's experience and knowledge.

In the health sector, JICA carries out activities aimed at strengthening the capacity of people as well as that of governments, municipalities, citizen organizations, and residents that are engaged in health and medical activities in developing countries, for the purpose of expanding and upgrading fair health and medical services. JICA also implements projects related to infectious disease control, such as avian influenza, SARS, HIV/AIDS, and malaria, which are especially serious in Africa, promotion of maternal and child health to protect the health of women and children, improvement in vulnerable health administration systems in developing countries, and developing human resources engaged in health and medicine.

Through these activities, JICA aims to secure the existence, livelihood, and dignity of humankind within the meaning of human security in developing countries in the human development field.

\*The MDGs related to human development are (1) achieve universal primary education, (2) promote gender equality and empowerment of women (elimination of gender disparity in education), (3) reduce child mortality, (4) improve maternal health, and (5) combat HIV/AIDS, malaria and other diseases. (The other three goals are to eradicate extreme poverty and hunger, ensure environmental sustainability, and develop a global partnership for development.)

## Basic Education

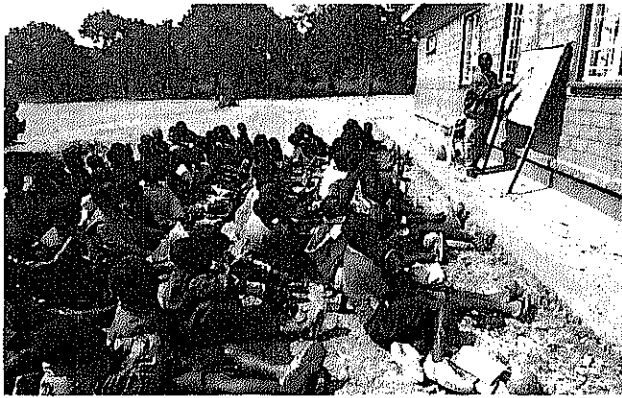
### Overview

Today, the international community is working for free and high quality primary education, improved adults literacy rate, and gender equality in education based on "Education for All-Dakar Framework for Action," which sets a target year of 2015. Though the enrollment rate in primary education is increasing, there are still about 77 million children worldwide who do not attend school. While the enrollment rate in the first grade is on the rise, many children cannot reach the final grade.

There are more children who do not attend school in the lower classes among those who are under the poverty line group than

Learning about the function of their taste organs (tongues) through experiments (Strengthening of Mathematics and Science in Secondary Education Project Phase 2 in Kenya)





Children in higher grades take their class outdoors due to the shortage of classrooms at a primary school in Mwanza, Malawi; there is a shortage of desks, chairs, and textbooks, too. (Photo by Katsumi Yoshida)

there are in the wealthy classes, more in rural areas than in urban areas, and 57% of them are girls.

There are also about 781 million adults in the world who do not have the minimum level of literacy. This is equal to one-fifth of the world's population and two-thirds of this portion are women.

### JICA's Efforts

In order to respond to these issues, JICA has expanded cooperation in the basic education sector. The actual amount and share of JICA's entire cooperation for education at the beginning of the 1990s was about ¥15 billion annually (about 12% of JICA's operation); however, it has now increased to about ¥25 billion annually, which accounts for about 20% (Figure 3-5).

Under the basic policy of providing cooperation in line with the needs of developing countries, JICA has identified the following five points as priority areas for cooperation in basic education.

- 1) Increase of enrollment in primary and secondary education
- 2) Improvement of the quality of primary and secondary education
- 3) Reducing gender disparities
- 4) Promotion of non-formal education
- 5) Improvement of education management

In order for all children to go to school, it is not enough to carry out efforts only at school; cooperation with the community and families is also vital. In an area where there is no school near homes or there are not enough classrooms for the increasing number of pupils, school buildings must be constructed, but even that is not enough. There are many children who cannot go to school because they have to work or they do not have money to buy textbooks and uniforms. JICA provides cooperation to increase the enrollment in primary and secondary education by deepening the understanding of parents and communities and improving school operations and education man-

agement in line with the different needs of individual communities and schools, in addition to school building construction.

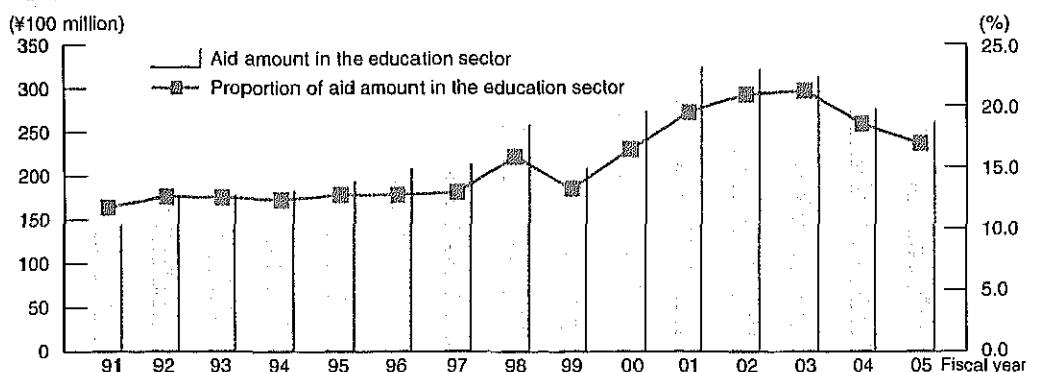
In many developing countries, education focused on rote memorization is provided in class where teachers write on the blackboard while lecturing and children just listen. However, the demand for classes that deepen children's understanding and boost their ability to think has increased. In response, JICA extends assistance aimed at improving the quality of education by increasing teachers' teaching capacity through pre- and in-service teacher training and developing teachers' manuals that are useful in improving classroom activities.

Especially in the science and mathematics education sector, cooperation utilizing Japan's abundant experience has been extended for a long time. The dispatch of JOCVs who are science and mathematics teachers started in 1966 and 2,146 JOCVs had been dispatched to 57 countries by 2006. In 1994, the Package Cooperation for the Development of Elementary and Secondary Science and Mathematics Education commenced in the Philippines. Similar projects have been implemented in 27 countries so far. Some projects such as Strengthening of Mathematics and Science in Secondary Education Project in Kenya and the Project for the Improvement of Teaching Method in Mathematics in Honduras are attracting attention from the surrounding countries and prompting regionwide cooperation, which is then extended to other countries.

In more concrete terms, in addition to teacher training and teachers' manual development, the introduction of experiments, practical work, exercises that are especially important for science and mathematics, improvement in the ability to draw up teaching plans, and improvement of class operation ability through lesson study are supported. Science and mathematics education not only helps improve children's scientific perspectives and thinking processes, but also forms the basis of various living skills such as improved health and hygiene and improves agricultural productivity. Since Japan has high-level science and mathematics education and has the experience of cultivating human resources who have supported economic growth so far, there are great expectations for Japan's cooperation.

Moreover, in order to ensure opportunity of basic education for all, school education is not enough. Non-formal education as a substitute for school education and assistance in literacy education for those who did not have opportunities to go to school during their childhood have recently been expanded and upgraded. Support for the promotion of girls' enrollment, which is below that of boys, is also provided.

**Figure 3-5** Performance of JICA's Cooperation in the Education Sector



Source: "Global Issue 2005" JICA Planning Group, Planning and Coordination Department

# Higher Education, Technical and Vocational Education and Training

## Overview

In many developing countries, opportunities to receive quality education and training tend to be limited. Consequently, human resources are not effectively utilized, thus opportunities to gain sufficient earnings are limited. The fact that human resources that lead industries are not developed has become a major bottleneck to industrial promotion and development.

At the same time, as globalization progresses and promotes knowledge intensive economies and information communication, the role of higher education that cultivates core human resources necessary for economic development and provides and spreads knowledge has recently been growing even in developing countries.

Today, as basic education is being expanded worldwide, providing a rapidly increasing number of graduates of basic education with more options is our next task. In order to ensure their social participation and lead to further economic development, response to education and training after basic education is becoming more important.

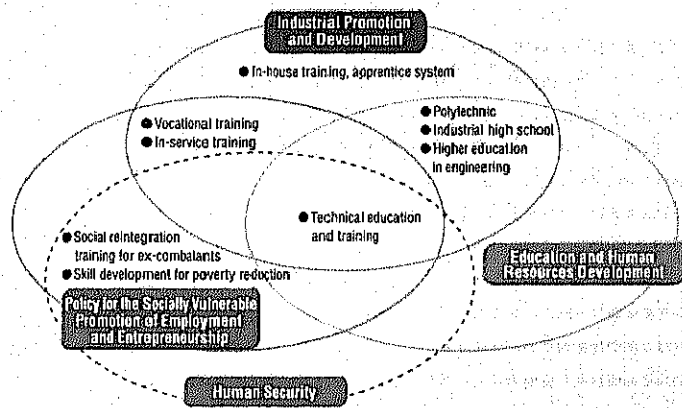
## JICA's Efforts

### Higher Education

In today's society, which is called the society of knowledge economy, higher education institutions are strongly required to create (research), diffuse (education), and use (social contribution) knowledge and information. In developing countries as well, the role that should be played by higher education institutions has become greater to cultivate human resources that will lead nation-building, improve the intellectual level of the entire society, and meet the expectations of society, such as contributing to industrial and regional development. These days, the importance of science and technology such as IT has been reaffirmed, and expectations for higher education institutions are increasing even more.

In response to these changes in roles, JICA's policy of supporting higher education is altering. JICA's cooperation has been conventionally focused on installing and expanding faculties and departments in the technical, engineering, and science fields that are considered directly beneficial to industrial promotion and technical development. However in recent years, JICA's cooperation

**Figure 3-6** Conceptual Diagram of Issues in the Higher Education, Technical and Vocational Education and Training



has been extended to support higher education administration, social science education, and management of universities. JICA is also making efforts to improve the research capabilities of graduate schools and research centers, strengthen collaboration with the industry, promote regional integration by utilizing intra-region network connecting universities, provide distance and regionwide education, and expand support for students coming from surrounding countries. From the global and long-term perspective, flexible cooperation activities meeting the situations and the needs of the partner countries are provided.

The ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net), currently implemented in Southeast Asia, aims to establish an education and research cooperation network with the participation of 19 universities from 10 ASEAN member countries and 11 Japanese universities; and improve the education and research capabilities in the engineering field of participating universities in cooperation with the Japanese universities. The network including the Japanese universities established in a common educational area is expected to be the foundation for improving the education and research capabilities even after JICA's cooperation project is completed. The regional study abroad programs and research networks not only lead to improvements in educational standards of regional universities as part of South-South cooperation but also are

## The Project on Improvement of Vocational Training in Ecuador

## CASE STUDY

Ecuador, which is located right on the equator in South America, is aiming for economic development by means of productivity improvement in its domestic industries, and human resources development in the industrial field is the most important issue. In particular, human resources with advanced technical skills that the industrial world seeks are in short supply in the country, and the Ecuadorian Occupational Training Service (SECAP), which is a national vocational training agency, is expected to implement training in line with the needs of the labor market.

In the Project on Improvement of Vocational Training, the implementation system of training courses for advanced engineers in the

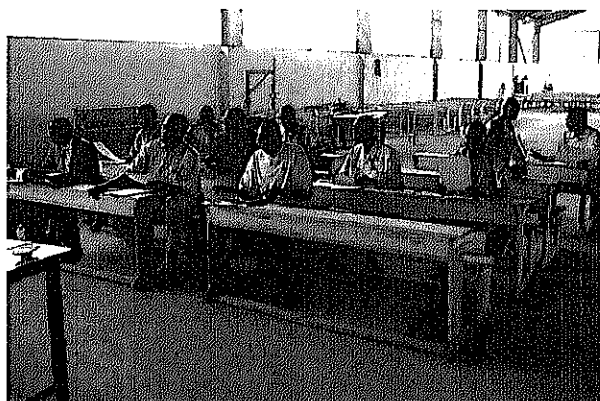
electric, electronics, machine, and metal fields are being established at the main center of SECAP, and trainers in three regional centers are being retrained. In the grant aid cooperation implemented together with this project, the training equipment at six SECAP centers was upgraded to make a base to implement high quality training at the national level. With such cooperation, SECAP has successfully implemented good quality training for over 5,000 people since the beginning of the project in 2002. It has received offers for partnership in practical training from universities inside the country, showing that the center is highly valued.

important for the integration of ASEAN.

### Technical and Vocational Education and Training

Human resources demanded by society differ depending on the state of development in each country. In middle-income countries represented by ASEAN and South American and Middle Eastern countries, with economic development by investment of foreign capital in the background, cultivating human resources to meet the needs of industry is needed. In these countries, it is necessary to provide appropriate education and training in line with the needs of the industry. To that end, JICA establishes and strengthens the system and organization of industrial technology and vocational training, plans and implements training courses working with the industrial world, and provides employment support. For example, in Jordan, a project to strengthen the operation and management capacities of a vocational training center has been implemented so that the center can understand the needs of the industry and employment in the area and reflect them on the training course.

In contrast, industries are undeveloped and employment in large enterprises is not really anticipated in the least less-developed countries and post-conflict countries. Therefore, it is necessary to cultivate human resources that can work in small businesses or start-up businesses based on the concept of acquiring practical basic skills, addressing poverty reduction and improve-



Lecture given to trainers of the Juba Multi-Service Training Center by a counterpart of a JICA project (Sudan)

ment of livelihood. Especially in post-conflict countries, it is important not only to restore the function of training centers that were destroyed in conflicts but also respond to the training needs of ex-combatants and returnees immediately. For example, in the Project on Improvement of Basic Skills and Vocational Training in Sudan, the vocational training center that was barely functioning during the civil war has been restored and basic training in response to urgent needs was entrusted to an NGO. At the same time, employment of trainees who have completed the training course has been supported. A better tomorrow for the residents is being sought with such a multi-layered approach.

## Health

### Overview

Recent rapid globalization has brought great benefits to developing countries, including active trading and improved economic conditions. On the other hand, the cross-border flow of goods and people has generated a new threat of global pandemics of emerging infectious diseases (such as SARS and avian influenza) and disparities between the poor and the rich have widened in the course of economic development, generating a serious situation where the poverty group and the socially vulnerable who are left behind in development cannot receive necessary health and medical services. Japan announced the Health and Development Initiative in 2005 to provide comprehensive support for such problems in the health sector. At the St. Petersburg Summit in July 2006, developed countries including Japan announced they would strengthen infectious disease control against HIV/AIDS, malaria, tuberculosis, and avian and new strains of influenza.

Under these circumstances, JICA is working to enhance and upgrade fair health and medical services based on the principle of human security. To strengthen the capacity of people as well as that of governments, municipalities, and citizen organizations that are engaged in health and medical activities in developing countries, the following projects are being implemented in cooperation with relevant government departments and institutions.

### JICA's Efforts

#### Infectious Disease Control

Infectious diseases such as HIV/AIDS, tuberculosis, and malaria are serious problems in developing countries, especially in Africa. Based on the Action Plan in Combating Infectious Diseases in Africa announced by the Japanese government in May

2006, JICA is committed to promoting infectious disease control programs, respecting each country's ownership. In the HIV/AIDS area, importance has been placed on cooperation related to improvement of strategy formulation and project management capabilities of developing countries and strengthening preventive measures centered on Voluntary Counseling and Testing (VCT).

Infectious disease control activities at the grass-roots level are also emphasized. In fiscal 2006, 105 JOCVs were dispatched to Africa, Latin America, etc., to carry out various educational activities for prevention.

#### Maternal and Child Health, Reproductive Health

In developing countries, the health problems of women and children are still serious too. In the world, more than 500,000 women die during pregnancy or childbirth every year. It is one of the primary issues related to women's health. More than 10 million children die of preventable diseases before their fifth birthdays.

Under such circumstances, with the aim of achieving MDGs, JICA is proactively committed to providing cooperation to improve the health of women and children. Based on Japan's experience in maternal and child health, maternal and child health handbook in the Middle East was introduced to Palestine to work on the health improvement of mothers and children. Additionally, cooperation to improve the medical services of pregnant and parturient women and newborn babies has commenced in Cambodia, Syria, Madagascar, etc., and cooperation to Expanded Programme for Immunization (EPI) has also commenced in China, Pakistan, etc., to protect children from diseases.

## Strengthening Health Systems

In order to strengthen maternal and child health and infectious disease control programs in a sustainable manner, it is necessary to improve the entire health system; including development of administration and institutions, improvement of service providing facilities, optimization of drug supply, as well as ensuring financial resources. In recent years, many developing countries are experiencing institutional rapid changes such as decentralization and expansion of health insurance, which potentially have a significant impact on the access and quality of health services. JICA provides assistance in line with such trends.

In fiscal 2006, the health management information system responding to decentralization was completed, as a result of cooperation called the Development Study on Improvement of Management Information System in Pakistan. In the study, a national action plan on the health information system was devised. The system enables each municipality to collect necessary information on health and provide appropriate health services based on the information collected. JICA provides support to such post-conflict countries as Afghanistan and Iraq as an emergency mea-

sure to restore health systems.

## Human Resources Development for Health

The key to functional health systems and necessary service provision is the human resources engaged in health and medicine. In many developing countries, there are problems with insufficient absolute number and imbalanced placement of health professionals and the inadequate quality of services provided. Responding to the needs of each country, JICA has been providing support to countries including Cambodia, Laos, Viet Nam, Uzbekistan, Senegal, and Saudi Arabia for basic education (pre-service education) and continuing education (in-service education) in nursing and other professions, and for strengthening government capacity in human resources development and deployment.

In addition to these ongoing undertakings, JICA is designing new projects for further human resources development in the health sector. Nursing education for Central America, basic health staff capacity development for Asia and medical education improvement for Asia are among the projects being planned.

## Front Line Kenya

### SPEAK Project (Strengthening of People Empowerment against HIV/AIDS in Kenya)

#### Endeavor to Reach People and Move Their Hearts

##### Combat infectious diseases with the local people

It is said that 25 million people are infected with HIV/AIDS in Africa, which accounts for two-thirds of infections worldwide. The spread of HIV/AIDS brings about serious social anxiety and a shortage of human resources in many African countries. In Kenya, over 1.3 million people, or 6.1 % of all adults, are reportedly infected.

The transmission of HIV/AIDS can be prevented with proper actions based on correct knowledge in many cases, since the disease is spread primarily through sexual transmission. JICA, which has supported HIV/AIDS control in Kenya for over 10 years, is now working to reach ordinary people and affect them from inside, through "SPEAK" project (Project for Strengthening of People Empowerment against HIV/AIDS in Kenya).

JOCVs are dispatched to the western part of Kenya where the infection rate is especially high. The JOCVs are helping the local people combat AIDS by conducting educational activities in villages with the local young people, renovating the HIV/AIDS testing and

counseling centers, and formulating regional HIV/AIDS control plans.

Every Sunday, BBC Swahili and its partner radio stations air programs on HIV/AIDS in the Swahili language. This popular program, which presents the problem of HIV/AIDS from various aspects through dramas, discussions, and interviews, is part of JICA's supporting activity. For the future, messages in tribal tongues other than Swahili will be broadcast from local radio stations.

##### Support the policy of the national government

Besides the cooperation to reach people directly, JICA supports the Kenyan government policy formulation. For example, efforts are being made to strengthen the government capability to constantly grasp the HIV/AIDS prevalence in the country and take appropriate measures. The development and diffusion of guidelines to improve the quality of HIV/AIDS control program is also being promoted.

Japanese experts and JOCVs who support HIV/AIDS control activities at the national and the grass-roots levels

respectively have regular meetings to report to each other their progress and challenges in the activities. More importantly, they work while always checking whether the government's actions reach the people, and whether the voices of people reach the government. JICA is committed to working hard so that all ordinary people will be able to protect themselves from the threat of HIV/AIDS.

(JICA Kenya Office)



A JOCV and the members of a local youth group appealing for HIV/AIDS test in the local language in a village

# Social Security

## Overview

The social security system is a framework to protect the lives of the citizens and guarantee the minimum standard of living for human beings. In the concept of human security, considering various factors that may threaten human existence, the risk of worsening situations should be reduced through social protection and the empowerment of people. The social security system is also designed to minimize various risks in the life cycle of each citizen in order to achieve this goal. Realization of a society where people can work free from anxiety is sought by preparing the security system in advance. The development level of the social security system greatly differs among developing countries. Some developing countries have developed a social security system that targets the majority of citizens while others have barely started to establish any systems. The diversity of the development necessitates responses according to the development level of the system. JICA provides the following cooperation based on the experience and knowledge of Japan related to the development of social security systems.

## JICA's Efforts

### Social Insurance and Social Welfare

The cooperation in this sector includes medical security and pension programs, which usually are provided in a form of social insurance, and social welfare measures for elderly persons, children, etc. It also includes protection of the socially vulnerable, such as delinquent youth and ex-combatants. Specifically, the Study on the Improvement of the Rural Pension Insurance System in China, the Project for Social Welfare Policies for the Elderly in Chile, the Project of Rehabilitation for Female Street-

children in Mexico are being implemented.

### Support for Persons with Disabilities

Although welfare for persons with disabilities is usually included in social welfare, JICA does not regard persons with disabilities only as the beneficiaries of welfare services, but rather emphasizes support that assists them in living in local communities with non-disabled persons and proactively taking part in social activities as actors in development. Specifically, this field can be divided into sectors such as development of disabled leaders, development and strengthening of disabled persons' organizations, support for independent life, promotion of barrier-free societies, medical rehabilitation, vocational rehabilitation, community-based rehabilitation (CBR), education for disabled persons and children. Cooperation is being implemented in countries such as Thailand, Malaysia, Indonesia, China, Egypt, Syria, Jordan, Rwanda, Bosnia and Herzegovina, and Chile.

### Labor and Employment

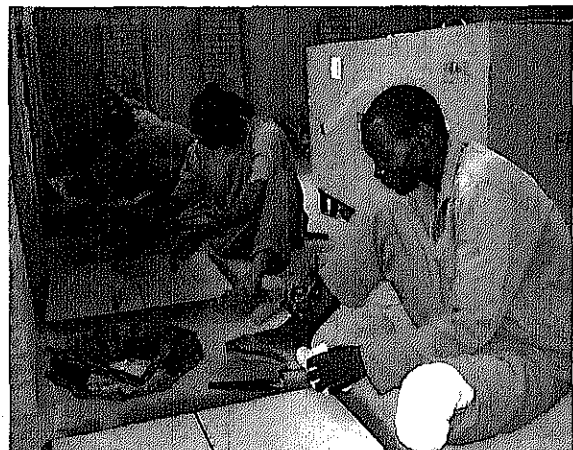
JICA implements cooperation in a wide-ranging sector covering labor policy, employment policy, employment service, labor standards, occupational safety and health, labor relations, as well as labor insurance such as unemployment insurance and worker's accident compensation insurance. In specific terms, dispatch of advisors in relation with labor policy and labor relations and support for improvement of employment service in Indonesia, strengthening of occupational safety and health administration in Malaysia, and capacity improvement of science technology for safe production in China are being implemented.

## The Project for Skill Training Coordinator for Handicapped in Rwanda

## CASE STUDY

Following the civil wars between Hutu and Tutsi over many years and the massacre that took place in 1994, the government of Rwanda started the Rwanda Demobilization and Reintegration Program with aid from the World Bank in 1997. Though many of the ex-combatants have disabilities, the assistance based on this program is limited to medical treatment and the provision of a rehabilitation apparatus, and does not include skills required for social reintegration. JICA has been promoting social reintegration for ex-combatants with disabilities by making the facilities of skills-training institutions barrier-free, cultivating trainers for skills-training, and supporting the implementation of skills-training, and as a result, 202 ex-combatants with disabilities have finished the skills-training program (as of March 6, 2007). Out of these, 144 have joined cooperative associations, earned employment in private companies, or have started making money from their own businesses, utilizing the skills acquired through the training. This project is expected to become the starting point for enhancing opportunities of skills-training not only for ex-combatants with disabilities but also for ordinary

persons with disabilities.

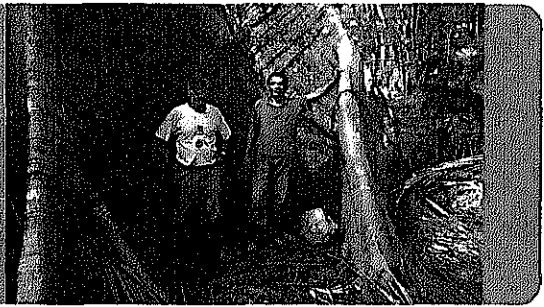


The trainees hope to acquire the means of living and return to the community.



# Global Environment

Natural Conservation/Environmental Management  
(Pollution Control)/Water, Disaster Prevention



A joint effort with local people to protect the forests of the Amazon (The Project for Sustainable Use of Forest Resources in Estuary Tidal Floodplains in Amapa, Brazil)

## Overview of the Global Environment Field

### Trends in Environmental Cooperation

At the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992, the seriousness of environmental issues was widely recognized throughout the world. The agenda 21 was adopted as guidelines for an approach to global environmental issues, and achievement of sustainable development was determined as a common global goal. The United Nations General Assembly Special Session (UNGASS) was held in June 1997, five years later, and the Millennium Development Goals (MDGs) adopted at the UN Millennium Summit, which was held subsequently in September 2000, advocated "to ensure environmental sustainability."

In the disaster risk reduction area, under the basic policy that societies resilient to disasters bring about sustainable economic growth, the Yokohama Strategy was formulated at the World Conference on Disaster Reduction held in 1994. In January 2005 the 2nd World Conference on Disaster Reduction was held in Kobe to sum up the ten-year activities, including the Yokohama Strategy, and create a new strategy.

For Japan, environmental issues in developing countries are recognized as important issues that have a serious impact not only on the developing countries concerned but also on the international community, and interventions regarding environmental issues through ODA have been emphasized. At the UNCED the Japanese government announced the increase and reinforcement of its environmental ODA from ¥900 billion to ¥1 trillion within five years starting in 1992, and subsequently announced the Kyoto Initiative (assisting developing countries in combating global warming) at the 3rd Conference of the Parties to the United Nations Framework Convention on Climate Change (COP3) in December 1997. Also the Medium-term Plan on ODA issued in August 1999 specifies environmental conservation as one of the primary issues, and refers to the proactive promotion of the Kyoto Initiative and more consideration for the environment when implementing development assistance.

In September 2002, the Japanese government announced the Environmental Conservation Initiative for Sustainable Development (EcolSD) at the World Summit on Sustainable

Development in Johannesburg, designating (1) efforts to address global warming; (2) pollution control; (3) fresh water issues; and (4) conservation of natural environment as priority areas.

At the subsequent summit, 3R (reduce, reuse and recycle) was taken up as a Japanese initiative in addition to global warming and was recognized as an important task.

As for the disaster risk reduction area, at the 2nd World Conference on Disaster Reduction in January 2005 the Japanese government announced its commitment to cooperate in disaster risk reduction suitable to stages such as preparedness, emergency relief, and subsequent rehabilitation and reconstruction assistance. Utilization of advanced disaster risk reduction techniques cultivated through Japan's past experience in disasters was expressed.

### JICA's Response

JICA has been building concrete plans in the environment sector based on these basic principles and action plans. However, its past efforts took various forms of aid and crossed over several sectors. JICA established the Global Environment Department on April, 2004, to build a system that allows consistent effective and efficient operation, from identification of issues to formulation and implementation of projects, in order to address complicated environmental problems in developing countries. In addition, "Guidelines for Environmental and Social Considerations" targeting all the projects was formulated and implemented in fiscal 2004.

Recently, biodiversity conservation, desertification control, and global warming prevention measures, acid rain control, preventive measures for earthquakes and other disasters have become major issues. To address these complicated environmental issues, JICA extensively implements cooperation for global environment problems based on a conventional approach consisting of (1) natural conservation; (2) environmental management (pollution control); and (3) water, disaster prevention. At the same time, JICA accumulates know-how in the global environmental conservation field to develop and implement more effective aid methods.

## Natural Conservation

### Overview

Human societies have developed by enjoying a wide variety of blessings from nature, including forests, lakes, marshes, and the

ocean, and by tapping into the natural environment. However, in recent years, the natural environment has rapidly deteriorated due to excessive utilization of natural resources, threatening the foun-

dations of existence for future generations. Such degradation, combined with poverty and starvation, could lead to serious social problems such as regional conflicts. Therefore, it is time for human beings to reconsider a relationship with nature to build and develop a society living in harmony with the environment.

### JICA's Efforts

Considering nature conservation as an important area of international cooperation, JICA has actively provided assistance in line with its objective to achieve harmony between nature and human activities.

As its specific goals, JICA implements cooperation for sustainable use of natural resources, biodiversity conservation, and rehabilitation of degraded land (Figure 3-7).

### Sustainable Use of Natural Resources

With regard to sustainable use of natural resources, JICA's cooperation can be divided into two types. One is support for sustainable use of natural resources by communities. In the regions where the people overuse natural resources for their living, thereby deteriorating the natural environment, JICA provides cooperation with the aim of improving the incomes and living situations of residents and conserving the natural environment. In these regions, people rely on natural resources for their livelihood. Therefore, sustainable use of natural resources, which offer livelihood sustenance, is essential to protect the life of the people, instead of using them up. JICA provides support to enhance people's capacity to manage natural resources and to establish a system to appropriately manage the natural resources so that the peo-

ple can protect and use their own resources continuously.

The other type of cooperation is support for sustainable forestry management. In order to enable developing countries to sustainably use natural resources such as forests in a planned manner, JICA supports studies on forest resources and formulating forest management plans, in an attempt to ensure compatibility between the improvement of forest management capacity and forest conservation. In recent years, in relation to afforestation and Reforestation Clean Development Mechanism (AR-CDM), JICA has been providing support for the establishment of an implementation system in developing countries, capacity development of administrators, and study and research regarding the feasibility of AR-CDM, all of which respond to climate change issues (see p.12-13).

### Biodiversity Conservation

In regions endowed with rich biodiversity and where the value of nature is left intact for posterity, collection of data on the natural environment to accurately understand the current conditions, development of management system of reserves, environmental education, measures for waste and contaminated water treatment, and support for livelihood that does not adversely affect nature (such as ecotourism) are implemented. All these activities are designed for the conservation of valuable nature and improving the income of the people living in the environment.

### Rehabilitation of Degraded Land

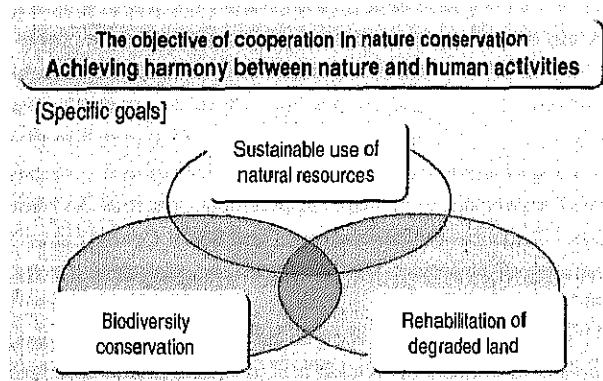
In regions where the destruction of the natural environment has been accelerated by excessive grazing, cultivation, and logging, soil erosion, desertification, and other problems emerge, imposing difficulties on people's lives. In these regions, JICA provides support for the development of appropriate restoration technologies and maintenance and management system in an effort to restore the natural environment, which is the basis of livelihood for the people.

### Effective Nature Conservation

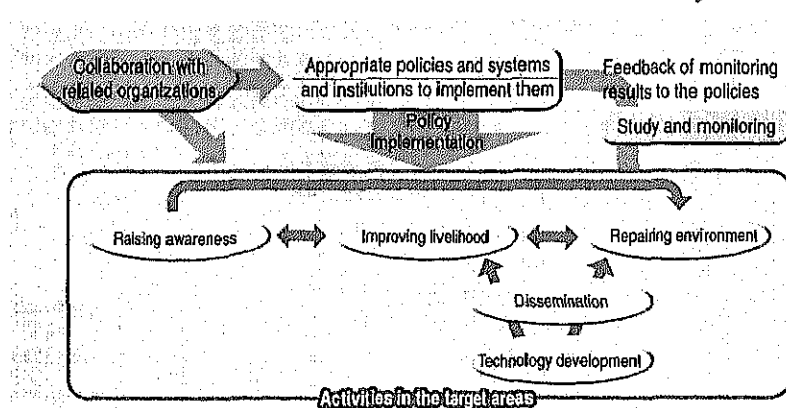
When implementing cooperation in nature conservation described above, it is important to build a system or capacity that allows developing countries to conserve the natural environment on their own (Figure 3-8). Accordingly, JICA provides comprehensive support to improve policies and institutions, enhance the implementation system, upgrade study and monitoring, repair environment, improve livelihood, raise awareness, etc.

When providing such support, JICA is looking to establish a system that promotes conservation activities in collaboration with related parties cross-cuttingly. It is because

**Figure 3-7** The Objective of Cooperation in Nature Conservation



**Figure 3-8** Structure for Promoting Nature Conservation



Study on basic data (water temperature, salinity, transparency, etc.) for conservation of marine environment (The Project on Conservation of the Galapagos Marine Reserve in Ecuador)

nature conservation requires efforts across various sectors other than environment sector in light of the lives of people living there and, and more importantly, collaboration and coordination with

a group of concerned parties related to the area to be conserved (such as local government, ministries and departments in charge of environment and agriculture, NGOs, companies, etc.).

### The Project on the Integrated Community Forestry Development Project (Extended Phase) (PRODEFI 2) in Senegal

### CASE STUDY

In Senegal, located in West Africa, the degradation of land has advanced due to deforestation and agricultural land development, and as a result the residents' livelihood has worsened. In response, JICA implemented the Integrated Community Forestry Development Project (PRODEFI) for five years starting in 2000.

Generally, training is provided only for the delegates who are selected from villages in a regular project. However, PRODEFI utilized accessible resources to provide various training in forestry management and livelihood improvement to whomever wishes to participate.

As a result, local residents who had been hesitant to plant the seedlings they received realized the possibilities of and benefits from conserving regional resources, and started to produce and plant seedlings by themselves. They also put into practice various economic activities in which local residents can take initiatives based

on the knowledge acquired during training, such as creation of vegetable gardens. Consequently, the people's livelihood has gradually improved and the whole village was invigorated.



Anyone who wishes can participate in training provided in the project.

The future goal is that the Senegalese ministry of forestry disseminates the method applied in this project as PRODEFI model on their own. JICA extended the project for three years in 2005 and expanded the target villages from 18 to 30 in order to further improve and disseminate the model.

## Front Line Argentina

### Natural Environment Conservation Project in the Iguazu Area

#### Protecting the Parana Jungle with Rich Biodiversity

##### Virgin forests that are being destroyed

The border area of Argentina, Brazil, and Paraguay, located at latitude 26 south, is known for the Iguazu Falls, one of the world's three great waterfalls. The Parana jungle is famous for its biodiversity, with indigenous plants, birds, and insects; and rare animals and plants, such as the giant anteater and Morpho butterfly, also inhabit this area.

The Argentine government designated approximately 70,000 ha of forest area surrounding Iguazu Falls as Iguazu National Park in 1934. In 1984 this area was also registered as a UNESCO World Heritage site. In Argentina, national parks are traditionally marked-off preserves patrolled by guards where only tourists and other people with special permission can enter. However, animals and insects move around regardless of the boundaries that humans draw, so they easily become targets of poachers. In addition, once outside the border line where the right of private ownership exists, forests have been freely logged and cultivated.

Though the virgin forest once covered as much as one million km<sup>2</sup>, due to dam construction and rapid development of farmland, only 5.8% of it remains. In response to such a situa-

tion, the World Wide Fund for Nature (WWF) designated the Parana jungle as Global 200 (priority nature conservation area, or 'hot spot,' where immediate conservation is necessary).

In order to protect the Parana jungle, humans who live not only in the closed preserve but also in the neighborhood (buffer zone) of the preserve need to exist in harmony with nature. Thus, the Natural Environment Conservation Project in the Iguazu Area was launched in February 2004.

##### Project consisting of three pillars

The project activities consist of three pillars: collaboration and information sharing, environmental education, and pilot program. With regard to collaboration and information sharing, collaboration among three parties who previously acted individually is being promoted. The three parties are: National Park Agency, Misiones Province in charge of land use and nature conservation of the peripheral area, and Andresito Municipality representing poor residents such as small-scale mate leaf farmers. Specifically, JICA experts provide information regarding Japan's methods of nature conservation and national park management to the three parties and create opportu-

nities for them to collaborate. In terms of environmental education, educational activities are carried out so that residents can realize the value of local natural resources and raise the value together with tourists. Finally, with regard to pilot program, an eco-lodge was built to be operated by local residents and an environmental education program is provided to lodgers, so the profits are returned locally.

The three-year activities made the collaboration among National Park Agency, Misiones Province, and Andresito Municipality solid. More local people have become proud of the Parana jungle and the operation of the eco-lodge is becoming financially stable.

(JICA Argentina Office)



Children participate in an afforestation activity, too.

Feature
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4 Global Environment

# Environmental Management (Pollution Control)

## Overview

With globalization and economic development, environmental issues that have negative impacts on our health and living conditions are becoming critical in many developing countries, not to mention in developed countries. Diverse environmental problems such as air pollution induced by industrial activities and motor-vehicle traffic, water contamination caused by inappropriate management of industrial waste water and human sewage, and waste problems arising from urbanization and changes in consumption activities, are becoming apparent in developing countries. Some of these environmental problems, such as acid rain and yellow sand, spread beyond national borders. A sense of crisis about environmental problems on a global scale, such as global warming, is rapidly growing.

These environmental issues are considered to be a serious problem affecting not only present but also future generations. In response, developing countries have promoted solutions to these problems at their own initiative by setting up environmental ministries or similar bodies and updating relevant legislation. However, environmental problems are a relatively new area and they have not been addressed satisfactorily due to lack of expertise, personnel, and financial resources. Taking actions after global ecosystems and people's health have already been damaged would be too late. Efforts in line with the international framework based on prevention principles are therefore necessary.

## JICA's Efforts

In response to the announcement of Our Common Future by the World Commission on Environment and Development in 1987 and the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992, JICA has strengthened measures for environmental management (pollution

control). Environmental issues are widespread, involving many factors and people, so these problems cannot be solved in a short period. Therefore, JICA is implementing cooperation projects that aim to improve the capacity for dealing with the environment (capacity development) so that the people in developing countries can solve the problems on their own in a sustainable way. The focus is placed on graduated cooperation suitable for the development situations of partner countries, various types of participation in development, and the development of effective environmental management capacities based on environmental science and technology. In cooperation for environmental centers that serve the base of environmental analysis and human development in each country, South-South cooperation to support neighboring countries is implemented to spread the effects of cooperation efficiently and promote cross-border support for environmental issues. JICA's specific measures are as follows.

### 1) Air environment (including global warming)

JICA implements cooperation that aims to improve the capabilities of developing countries such as environmental-monitoring capacity and countermeasures planning capacity for air pollution. Cooperation for establishing standards for air pollutants is also implemented. As for global warming, JICA supports building a foundation, including designated national authorities (DNA)\*, and other relevant bodies that will play a pivotal role in fighting global warming (see p.12-13).

### 2) Water environment

JICA provides support for measures to prevent the pollution of rivers, lakes, and seas, including improvement of water environment monitoring capacity, management planning, and policy advice capability. Cooperation for planning and capacity development to manage human sewage such as sewage systems is also implemented.

## The Study on the Solid Waste Management for the Kathmandu Valley in Nepal — CASE STUDY

The Kathmandu Valley, which embraces five major cities in Nepal (Kathmandu, Lalitpur, Bhaktapur, Thimi, and Kirtipur), accommodates a population of 1.5 million (estimated figure in 2001) in an area of approximately 899 km<sup>2</sup>. Population is rapidly increasing and people's lifestyles have been drastically changing in Kathmandu Valley recently. Accordingly, the amount of waste generated per person is rapidly increasing. On the other hand, as proper urban waste management is not thoroughly established, the lack of waste collection capability results in scattered waste in the living space and waste is dumped into rivers in the valley without a final waste disposal site, thus worsening waste problems and deteriorating the people's living conditions.

In order to improve the situation, JICA conducted a development study from March 2003 to August 2005, and formulated action plans for improving waste management in the five major cities and the Solid Waste Management and Resource Mobilization Center (SWMRMC) under the supervision of ministry of local governance by 2015.

In the study, the general basic policy for the Kathmandu Valley was first established to indicate the basic direction regarding issues common to the five cities. Based on this policy, action plans for the five cities and SWMRMC were drafted. Based on the drafts,

pilot projects for improvement of collection and transport systems, waste reduction, and improvement of the final disposal site were implemented to finalize action plans reflecting the lessons learned.

This study features emphasis on the process of the study and on-the-job (OJT) training. Prior to the start of the study, there was almost no cooperation in place for proper waste management among the related parties. However, based on the general basic policy for the Kathmandu Valley, an attitude of tackling waste management collaboratively and cooperatively is gradually emerging led by members of a technical working group formed from related parties during the study and task forces in each city. In the future, action plans are expected to be implemented based on these outcomes.



Clean up campaign held in the major five cities (photo in Thimi)

### The Project for Implementation Support for 3R Initiative in Hanoi City to Contribute to the Development of a Sound Material-cycle Society

#### Community Understanding and Cooperation is the Key

##### Resources when segregated, waste when mixed

3R is an acronym consisting of the initial letters of three words: reduce, reuse, and recycle. Japan promotes international efforts by proposing the 3R Initiative, which aims to establish a sound material-cycle society through 3R. In JICA's Project for Implementation Support for 3R Initiative in Hanoi City to Contribute to the Development of a Sound Material-cycle Society, a model program for segregated collection and composting of kitchen waste is implemented to support the Vietnamese national environmental strategy of recycling 30% of household waste.

In developing countries, generally there are no definite rules regarding waste disposal. Even Hanoi, the capital, faces serious waste issues such as waste scattered on roads and illegal waste disposal in lakes due to undeveloped waste management systems and low citizen awareness. The introduction of segregated collection requires the understanding and cooperation of local communities. In order to raise and put into action the awareness that waste

becomes resources when segregated, various educational and dissemination activities are being promoted.

##### For the formulation of "Segregation Hanoi Model"

In the project, in preparation for starting the model program, community meetings are held where local residents and related parties gather to promote understanding for the model program and establish partnerships. Various efforts to promote participation and familiarize local residents with the program are made; for example, having them discuss designs of trash cans for segregation, which will be distributed to every household, and distributing "my bags" to decrease the use of plastic bags. Active dissemination and education activities are also implemented, such as raising awareness through media and 3R events. These activities have attracted the attention of the whole country.

Next steps are the provision of environment education through the development of environment education program for elementary schools, organiz-

ing waste disposal site tours for local residents, and launching the model program for segregation and composting of kitchen waste. It is expected that the collaboration cycle (local residents who segregate kitchen waste → garbage men who collect and transport waste → composting facilities → farmers who use the composts → and local residents who buy agricultural products from the farmers) will be established as the "Segregation Hanoi Model" and extended throughout Viet Nam.

(JICA Viet Nam Office)



Special bags and containers for specific types of waste were distributed throughout the community.  
(Photo by Katsumi Yoshida)

#### 3) Waste management (including the promotion of a sound material-cycle society)

JICA implements cooperation that aims to enhance planning and management capabilities related to the collection, transport, and disposal of general and industrial waste. Recently, cooperation for building a sound material-cycle society through 3R, including waste reduction, promotion of recycling, environmental education, and awareness raising activities, is actively pro-

moted, too.

#### 4) Other environmental management

Other than the above three areas, JICA implements cooperation for measures against mine pollution, soil contamination and formulation of environmental management plans.

\* Designated national authorities (DNA) are governmental bodies whose establishment was stipulated under the Marrakesh Accords, which provides detailed rules for implementing the Kyoto Protocol. A CDM project requires the approval of the DNA.

## Water, Disaster Prevention

### Overview

Water shortage, water pollution, flood disasters, and other problems associated with water resources are becoming increasingly serious and diversified due to the rapid growth of population and economic development on a global-scale. At present, one-third of the world's population is facing water shortage and 1.1 billion people have no access to safe drinking water. Every eight seconds one child dies from water-borne diseases, and 80% of the causes of diseases in developing countries reportedly are linked to contaminated water. In addition, many problems are associated with water resources, including flood damage and deterioration of the water environment caused by inappropriate water use and treatment. Various water-related problems are recognized

as urgent global issues, and the deteriorating situation of water resources has further intensified global response.

In addition, various disasters occur every day throughout the world. In developing countries where social infrastructure is not fully developed, disasters directly affect people's livelihood, aggravating poverty. In order to improve these situations, support for systematically enhancing the capacity to deal with disasters, including the development and enhancement of system, structure and capacity, is promoted as well as conventional measures centered on reinforcing physical structures. JICA is cooperating with community based disaster risk reduction, which focuses on activities by local communities and on strengthening their capacity to deal with natural disasters.

## JICA's Efforts

Following the announcement of the basic policy of subsequent cooperation in the water sector in 2004, JICA participated in the 2nd World Conference on Disaster Reduction held in 2005. In response, JICA reinforced its measures in the disaster management sector. As the water and disaster prevention sector has gained importance in recent years, measures in the water and disaster prevention sector are increasingly discussed at international conferences, including summits and Tokyo International Conference on African Development (TICAD). Although the World Water Forum is a global conference in the water sector, from the suggestion made by the late former Prime Minister Ryutaro Hashimoto, a new Asia-Pacific Water Forum to solve water problems in Asia-Pacific was established. At the 4th World Water Forum held in Mexico in 2006, JICA again presented its project achievements in various countries.

## Water

In the water sector, the following goals are set out as specific measures.

- 1) Promoting integrated water resources management:** JICA proactively supports integrated and comprehensive water resources management systems, considering the multifaceted nature of water resources that includes flood control, water use, and water environment. Specifically, JICA supports system-building for collection and analysis of water resources information and planning for building a watershed management system.
- 2) Urban water supply:** JICA supports the efficient operation of water utilities by strengthening their capacity to maintain and manage resources, measure non-revenue water, and systemize water fee collection.
- 3) Rural water supply:** JICA assists water supply soil survey for building water supply facilities, formulation of facility improvement plans, enhancement of the maintenance and management system of existing water supply facilities, and dissemination and establishment of rural hygiene plans.
- 4) Flood control:** JICA supports implementation of balanced flood control measures for the entire watershed from upstream to downstream in view of a combined approach with a focus on hardware and software aspects.

- 5) Conserving the water environment:** JICA provides support for enhancement of the framework for conserving the water environment through a range of activities, including establishment of environmental standards, monitoring, control measures for contaminated sources, and IEC (Information, Education and Communication).

## Disaster Risk Reduction

In disaster risk reduction, JICA sets out the following three goals from a comprehensive viewpoint based on the disaster management cycle (DMC) (preparation and mitigation→emergency relief immediately after the occurrence of a disaster→recovery and reconstruction →promotion of further preparation activities).

- 1) Disaster-tolerant society building:** As a step to prepare for disasters, JICA supports the understanding of communities regarding disaster risks through communication; formulation and upgrading of laws, systems, and plans regarding disaster risk mitigation prevention measures; establishment of early warning, warning, and evacuation systems; improvement of deterrence capabilities by establishing disaster prevention facilities and measures; and improvement of regional disaster risk reduction capacity.
- 2) Emergency response that reaches the victims quickly and effectively:** Immediately after the occurrence of a disaster, in order to save lives quickly and effectively, JICA provides life-saving and rescue operations, emergency medical care, and support for the victims (supply of food and drinking water, securing temporary housing, health and medical services, and mental care). These emergency relief activities are carried out by the Japan Disaster Relief Team (see p.111). In parallel with this emergency relief, JICA conducts a needs survey for recovery and reconstruction aiming at a seamless transition to recovery and reconstruction assistance.
- 3) Transition to and implementation of accurate recovery and reconstruction:** In order for victims to be able to return to their normal daily lives from post-disaster chaotic conditions as soon as possible, JICA provides continuous support from emergency relief in the wake of a disaster to the recovery and reconstruction stages, including recovery of living infrastructure, lifelines, and reconstruction of regional communities.

## The Project on Rural Water Supply Technology in the Central Dry Zone in Myanmar

The central dry zone of Myanmar belongs to a subtropical semi-arid zone and has a population of approximately 11.5 million. Annual rainfall ranges from 400mm to 880mm, most of which falls during the rainy season. During the rainy season people utilize water in reservoirs for their daily needs. During the dry season, when the reservoirs are dry, people in villages without a well either have to walk three-to-four hours to neighboring villages every couple of days for water, or they must purchase water with the small amount of cash income they earn.

This project is being implemented for three years and targets the Department of Development Affairs (DDA) in charge of village water supply services in Myanmar. The project is expected to bring approximately 52,000 people access to safe water. In addition to technical transfer to the DDA technicians tasked with the digging of a deep

well, new activities for Myanmar will be implemented, such as the establishment of a well monitoring system and repair of the water supply facility. Through the establishment of a maintenance and management system by local residents, the project aims to ensure a continuous supply of safe water.

In Myanmar, water-fetching is mainly carried out by women and children. When a well is completed through this project, time that has been spent fetching water can be used for education or work to obtain cash income. The counterparts and JICA experts are jointly implementing this project hand-in-hand to provide safe water to as many people as possible.

Project website  
<http://project.jica.go.jp/myanmar/0301099E0>

## CASE STUDY