JICA’s Approach to the Millennium Development Goals
For inclusive and dynamic development
Foreword

The efforts made by the international community for the Millennium Development Goals (MDGs) have resulted in significant achievements thus far, including the reduction of the percentage of people living in poverty and the improvement of access to safe drinking water. However, even now approximately 1.3 billion people throughout the world are still impoverished. One in every four persons globally is living on less than 1.25 dollars a day. We need to renew our focus to meet our common challenges. And in a society where global interdependency is growing, we must work harder together to provide collective solutions.

To achieve the MDGs, it is not adequate to take individual or discrete measures to tackle issues such as public health, education, safe water and so on. In 2011, the Great East Japan Earthquake struck Japan, causing unprecedented damage. Across the world, natural disasters have caused damage equivalent to approximately 2 trillion dollars and have affected 4.4 billion people over the past 20 years. Moreover, global issues such as infectious disease, conflicts, climate change, food, energy and financial/economic crises are becoming more serious, increasingly inter-related, and affecting more people. Therefore it is critical to foresee and understand potential risks that affect people’s lives and to take comprehensive and integrated approaches to address them.

Furthermore, we should remind ourselves that the result of the achieved MDGs must be sustainable. To maintain and build upon them, it is essential that governments and people in developing countries develop their own capacities to address challenges, to sustain growth, and to ensure that all segments of their societies enjoy the fruits of development.

Driven by these objectives, JICA has been providing its cooperation with an emphasis on country ownership to achieve the MDGs. We promote human security to ensure that people can live in safety and dignity, and we pursue “Inclusive and Dynamic Development” that revitalizes the world’s developing nations as well as Japan. Ultimately, our aim is to narrow disparities and inequity, alleviate poverty with peacebuilding and economic growth, create knowledge to address global issues, and generate a sense of solidarity among Japanese and people around the world.

As the comprehensive development agency that assumes a vital role in Japan’s international contributions, JICA is committed to tackle poverty reduction in developing nations and to achieve this goal in partnership with other development partners, NGOs, universities, local governments, enterprises and citizens. Through this report, I shall be delighted if you gain a better understanding of JICA’s diversified approach to achieve the MDGs and our vision beyond 2015. I hope that you will join us in our efforts to realize a peaceful and better world.

Akihiko TANAKA, President
Japan International Cooperation Agency (JICA)
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Contents
### Overview and Progress of the MDGs

#### 1-1 What are the MDGs?

The United Nations Millennium Declaration was adopted during the Millennium Summit held in September 2000, in which 189 countries participated. The Declaration set goals to be achieved by the international community in the 21st century. It reflected the consensus of the international community to work in global partnerships and coordination to address seven issues: (1) peace, security, and disarmament; (2) development and poverty eradication; (3) protecting our common environment; (4) human rights, democracy, and good governance; (5) protecting the vulnerable; (6) meeting the special needs of Africa; and (7) strengthening the United Nations. The Millennium Development Goals (MDGs) were then established as a common framework by integrating the Millennium Declaration and the International Development Goals adopted by major UN international conferences and summits in the 1990s.

The MDGs consist of eight goals to be achieved by 2015. In September 2005, five years after the Millennium Declaration, the United Nations hosted the Millennium+5 Summit, attended by over 170 Heads of State, to undertake a comprehensive review of the progress made on efforts proposed in the Declaration, including the MDGs. The Summit’s outcome statement declared the international community’s strong commitment to achieve the development goals based on country ownership and partnerships. In September 2010, with five years remaining before the target year, a UN Summit was held to review progress with the MDGs, and discuss measures to promote achieving them. As a result of this Summit, the following message was shared: "Although there are some disparities among the regions, the MDGs will be achieved by 2015, provided that international society cooperates and makes further efforts in a concerted manner." The MDGs Follow-up Meeting was held in Japan in June 2011, in order to put this message into a practical form.

#### 1-2 Progress of the MDGs

Every country and many organizations have been working towards achieving the MDGs. Nevertheless, given the progress made by 2012, it will be difficult to achieve all the MDGs by 2015. Further improvements are necessary in all sectors, particularly in gender equality, access to sanitation facilities, and improving maternal health, which lag the farthest behind in progress.

The progress of each MDG largely depends upon various issues and factors affecting the state of the world as well as the outcomes of the measures taken by each nation. For instance, the global financial and economic crisis that took place in 2008 has raised the unemployment rate worldwide and has increased the number of people who have no choice but to engage in temporary employment, including work without wages. At the same time, in addition to decreases in incomes and employment opportunities, high food prices, which had already begun to rise before the financial and economic crisis, have led to a situation in which people in poverty have difficulty securing food. This is one of the factors that are obstructing progress in achieving the first goal: to eradicate extreme poverty and hunger.

In addition to the instability of the world economy, the progress of the MDGs is greatly affected by conflicts and natural disasters, such as the floods in Thailand in 2011. Furthermore, it is a matter of growing concern that climate change may pose a serious threat to achieving the MDGs and sustaining and expanding the outcomes of development efforts.

The progress of achieving the MDGs varies among the eight objectives and also among geographical regions. For instance, in all likelihood, the first goal of poverty reduction will be achieved worldwide by 2015. Poverty has improved to a great degree in Eastern Asia and the Pacific region, whereas it is predicted that it will be difficult to achieve this goal in Sub-Saharan Africa. Similarly, within the same nation there are disparities in progress between urban and rural areas. Furthermore, the progress of achieving the respective MDGs even varies depending on social affiliation and income, such as more affluent people and males rather than females enjoying greater achievements.

Thus, when assessing the progress of the MDGs, it is necessary to consider differences in progress within the same region and within the same nation, in addition to variations among regions.

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**MDGs Goals and Targets**

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**Rural poverty remains high and pervasive in Africa**

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Progress of each MDG

Source: UN, Millennium Development Goals Report 2012

**Goal 1: Eradicate extreme poverty and hunger**
- The number of people in extreme poverty fell from 2.0 billion in 1990 to 1.3 billion in 2008. The poverty rate dropped from 47% to 24%. The target seems likely to be achieved by 2015.
- Although the poverty rate is decreasing in all areas, it still remains high in Sub-Saharan Africa, which had a poverty rate over 47% in 2008.
- The proportion of the “working poor”—employed workers who live in households where individual members subsist on less than $1.25 a day—had been on a downward trend. However, due to economic and financial crises, the rate of improvement has slowed down since 2008.
- The number of people who are undernourished reached 925 million in 2010.

**Goal 2: Achieve universal primary education**
- In Sub-Saharan Africa, the school enrollment rate in primary education increased to 76% in 2010 from 58% in 1999. It also rose to 93% from 77% in Southern Asia.
- Even as the number of school-age children continues to rise, the total number of children out of school is decreasing—from 106 million in 1999 to 61 million in 2010.
- High dropout rates have been impeding the achievement of universal primary education. However, the ratio of children who reach the final year of primary education in developing regions improved to 90% in 2010 from 81% in 1999.
- Over 70% of out-of-school children in the world in 2010 are in Sub-Saharan Africa and Southern Asia (33 million in the former region and 13 million in the latter).

**Goal 3: Promote gender equality and empower women**
- In the developing regions, 97 girls were enrolled in primary school for every 100 boys in 2010, up from 91 girls in 1999. In secondary school, the ratio of girls to boys was 96:100 in 2008, compared to 88:100 in 1999.
- The goal to eliminate gender disparity in primary and secondary education by 2005 was almost achieved in 2010 for primary education.
- The proportion of women in paid employment in non-agricultural sectors as of 2010 is especially low in Southern Asia, Western Asia and Northern Africa. In these regions, it is around 20%, whereas it is 40% worldwide.
- The rate of seats held by women in national parliaments has been on the rise. However, there are only 26 countries on track to achieve the target of 30% set in the Beijing Action Plan. As of 2012, the rate is 19.7% overall, 18% in developing regions and 23% in developed regions.

**Goal 4: Reduce child mortality**
- The number of deaths of children under five years of age declined from 12 million in 1990 to 7.6 million in 2010.
- The under-five mortality rate dropped from 97 per 1,000 live births in 1990 to 63 per 1,000 live births in 2010 in developing countries. The goal was achieved in North Africa, and is approaching in East Asia.
- In 2010, about 6.2 million children under the age of five died in Sub-Saharan Africa and Southern Asia (accounting for approximately 82% of under-five mortality worldwide).
- In Sub-Saharan Africa, one out of every seven children (and one out of every six in Western and Central Africa) dies under the age of five.

**Goal 5: Improve maternal health**
- The proportion of deliveries attended by skilled health personnel in developing regions increased from 55% in 1990 to 65% in 2010.
- The maternal mortality rate per 100,000 births in developing regions dropped from 440 deaths in 1990 to 240 deaths in 2010, but it is still substantially higher than the goal.
- The percentage of women who received an antenatal care visit at least once during pregnancy rose from 63% in 1990 to 80% in 2010. However, only 55% of pregnant women in developing regions in 2010 received these visits more than four times, as recommended internationally.
- Even though the total amount of official development assistance for health has increased since 2000, aid for reproductive health services remains low at 6.2% (2010). Although aid for family planning as a proportion of total aid for health is even lower, it slightly improved from 2.5% in 2009 to 3.2% in 2010.

**Goal 6: Combat HIV/AIDS, malaria and other diseases**
- Worldwide, the number of newly HIV-infected individuals fell from 3.5 million in 1997, when it hit its peak, to 2.5 million in 2011.
- About 650,000 people died from malaria in 2010, and Sub-Saharan Africa accounted for 91% of these deaths. The number of children using bed nets in the region had jumped to 39% in 2010 from 2% in 2000.
- The number of HIV-infected individuals who receive antiretroviral therapy had reached about 6.5 million in 2010. However, this is still far from the goal set by the United Nations High-Level Meeting on HIV/AIDS, which is to provide treatment for 15 million people by 2015.
- The rate of new tuberculosis patients has slightly dropped worldwide since 2004. However, it increased in Sub-Saharan Africa, where HIV-infection is widely prevalent. The number of new TB cases fell in many nations, whereas it increased over 1990 levels in Sub-Saharan Africa and CIS countries.

**Goal 7: Ensure environmental sustainability**
- The 196 nations that ratified the Montreal Protocol reduced the consumption of ozone-depleting substances by 98% from 1986 to 2008.
- The net loss of forest area over the last decade was reduced to 5.2 million hectares per year, down from 8.3 million hectares per year in the 1990s.
- In 2010, the proportion of the world population using an improved water source was 89%, and the MDG was achieved.
- In developing countries, the proportion of the urban population living in slums has declined from 39% in 2000 to 32.7% in 2010. The living conditions of 200 million slum dwellers were improved.
- The goal to reduce the rate of biodiversity loss by 2010 has not been achieved. Approximately 19,000 species of plants and animals are known to be threatened with extinction.
- About 2.5 billion people still did not have access to improved sanitation facilities in 2010, and it is apparent that this goal will be difficult to achieve.

**Goal 8: Develop a global partnership for development**
- The rate of products without tariffs greatly increased in exports from developing countries to developed countries from 54% in 1998 to 80% in 2010.
- External debt repayment in 2000 accounted for roughly 13% of export revenues among developing countries, but dropped to 3% in 2010.
- Worldwide, the number of cellular phone subscribers exceeded 6 billion people in 2011, which equates to 79% coverage in developing regions.
- In 2011, a net amount of ODA expenditures totaled 133.5 billion dollars. While constituting an increase in absolute dollars, this was a 2.7% drop in real terms over 2010.
- The ODA/GNI ratio was 0.31% and only five countries achieved 0.7% (the target ratio) in 2011.
- The number of people using the Internet reached a worldwide total of around 2.4 billion in 2011. The proportion of Internet users in developing countries is merely 26%, whereas it is 74% in developed countries.
2. JICA’s Approach to the MDGs

JICA incorporates the perspective of "human security" in each of its projects. With its efforts to protect people from the threats of natural disasters, conflict and poverty, JICA strives to ensure that the outcomes of cooperation reach every individual and develop people’s capacities to become self-reliant in the long run. JICA provides dynamic assistance for capacity building and the development of infrastructure to support the sustainable achievement of the MDGs.

2-1 Human security and the MDGs

“Security” was once an idea indicating that the state would protect its people and national boundaries. However, in conjunction with advancing globalization and a growing number of cross-border problems, such as economic crises and infectious diseases, it has become increasingly difficult to protect the safety of individuals under the conventional concept of national security.

“Human security” focuses on comprehensive endeavors in two areas: freedom from “want,” including a lack of social services such as education and health; medical care and underdeveloped basic infrastructure; and freedom from “fear,” such as the fear of conflict, terrorism, natural disasters and the prevalence of infectious diseases. Therefore, human security, which is enhanced by “protecting” people from a wide range of threats and “developing their capacity” to tackle these threats, is an important concept to build upon to achieve the MDGs.

2-2 Capacity development and the MDGs

In its process of modernization, Japan enthusiastically gained knowledge and studied systems from developed countries and distinctively modified and applied them to its own society and institutions. Thus, Japan has extended its development cooperation with an emphasis on ownership of developing countries, and it is reflected by one of the core principles in Japan's ODA Charter, defining ODA as “assistance for self-help efforts by developing countries.”

JICA supports “capacity development” among developing countries as one of its important approaches to achieve “human security.” In this approach, capacity is defined as “the abilities of people in developing countries to address their development issues.” The approach takes into consideration “an aggregate of diverse factors including institutions and policy/social systems” and attaches importance to self-motivated (or home-grown) efforts of developing countries.

Amidst advancing globalization, developing countries have been undergoing drastic and rapid change. To steadily achieve the MDGs and sustain and expand their outcomes, it is essential for developing countries to build their capacities to solve their own problems of their own accord.

2-3 Infrastructure to support achieving the MDGs

JICA understands the role of infrastructure as “an essential foundation to achieve development goals such as poverty reduction, the MDGs, and economic growth and to eventually help realize the various potentials and possibilities of people.” With this understanding, JICA has provided assistance for the development of infrastructure in developing countries.

Infrastructure is most likely to contribute to achieving the MDGs in two ways. First, the delivery of basic infrastructure services ensures the right of people to survive and live a secure and healthy life. In order for people to live, they need to have a sanitary environment with sufficiently developed water supply and sewerage systems and to have access to health and medical care service facilities. Infrastructure also plays a significant role to protect life and property from natural disasters, such as earthquakes and floods.

Secondly, infrastructure services foster efforts for economic growth in the country and region, thereby improving income levels and quality of life. In addition to developing physical infrastructure, facilitating good governance and institution building, which is also broadly defined as infrastructure, enhances investments, creates employment opportunities, increases productivity, and eventually leads to economic growth.

However, during the process in which infrastructure is developed and contributes to growth, special attention should be given to potential adverse effects, including the widening of income gaps and environmental deterioration. Likewise, once facilities are completed, it is necessary to take appropriate measures to avoid such problems as inadequate management and maintenance or poor service delivery.

In order for the development of infrastructure to benefit the poor, JICA makes sure whether they will have access geographically and financially. In other words, JICA considers its accessibility (the physical availability of the infrastructure), its affordability (whether the poor will be able to use it at a reasonable cost), and its acceptability (whether the poor will understand its necessity). Together with infrastructure development, JICA strives to amplify its effects by assisting relevant personnel in developing countries to develop their capacity in planning, operating, and maintaining the infrastructure.

Sustainable Development Goals (SDGs)

The United Nations Conference on Sustainable Development (Rio+20) was held in Rio de Janeiro, Brazil, in June 2012. The Conference marked 20 years since the UN Conference on Environment and Development (Earth Summit) in 1992, and 10 years from the World Summit for Sustainable Development (WSSD) in 2002. Rio+20 focused on two themes: the Green Economy, and the Institutional Framework for Sustainable Development. As one of the measures for shaping these issues, setting Sustainable Development Goals (SDGs) was also discussed. The Rio+20 outcome document, “The Future We Want”, reaffirmed the commitment to continuous world efforts towards achieving the MDGs. The participants also agreed on certain aspects of the SDGs: the goals should address economic, social and environmental aspects in a balanced way and incorporate their inter-linkages; they should be coherent with and integrated in the UN development agenda beyond 2015; and they should be universally applicable to all countries. It was also agreed that the SDGs should be focused on 26 priority areas such as poverty eradication, energy, health and population, disaster risk reduction, climate change, and so on. Regarding the SDGs process, a working group will be established at UN, and it will need to be coordinated and coherent with the process considering the post-2015 agenda.

JICA will utilize its experience and knowledge to make continuous efforts toward achieving the MDGs, and will contribute to the discussions on the development agenda beyond 2015.

Roles of infrastructure and process of its emerging effects

Direct impact

Delivery of basic infrastructure services

Economic growth

Ensuring sustainability

Complementary measures

Negative impact

Environmental destruction

Widening income gaps and regional gaps

Considerations for regional gaps

Social considerations (poverty and gender)

Environmental considerations

Provision of infrastructure services

Indirect impact

Diversification and expansion of opportunities for socioeconomic activities

Poverty reduction/MDGs

Fulfilment of people’s potentials and human security

Fulfillment of people’s potentials and human security
Eradicate Extreme Poverty and Hunger

JICA’s Approach to Poverty Reduction and Hunger Eradication

People living in poverty in developing countries are exposed to the risk of even worse living conditions due to the impacts of economic crises, conflict and disasters. Furthermore, the disparity between the rich and the poor is a factor that can destabilize society. For poverty reduction, it is necessary to expand employment opportunities and strengthen public services through equitable economic growth that takes into consideration the needs of the poor.

JICA has been working for the goal of poverty reduction by providing comprehensive assistance in terms of human resource development and capacity development, improvements in policies and institutions, and the development of social and economic infrastructure. At the same time, JICA has strengthened its efforts to increase and stabilize the supply of food and promote effective and food distribution in developing countries, supporting the goal of eradicating hunger. This is particularly important in Sub-Saharan Africa where the prevalence of malnourishment in the population poses a serious problem.

Assistance to narrow developmental gaps through comprehensive regional development

Indonesia has succeeded in improving the quality of its people’s lives and welfare. However, there are striking developmental disparities between its western and eastern regions. The government has acknowledged that this problem needs to be addressed urgently. Under such circumstances, instead of having various plans by sector, it has become increasingly important for Indonesia to formulate and implement a comprehensive development plan for each respective region to strengthen the role and functions of decentralized local governments. Against this backdrop, JICA has been implementing projects with the aim of reducing poverty through regional development in the eastern region of Indonesia, which has a high poverty rate.

The province of South Sulawesi, which has the largest population in eastern Indonesia, is the key transportation and distribution point located in the center of the region. From 2006 to 2012, JICA conducted the Regional Development Program in South Sulawesi. In this program, in order to help strengthen local government organizations through a multilayered, integrated approach to local administration and the local community, JICA combined urban development with rural development and comprehensively addressed such tasks as urban development, economic growth and social development (e.g., education, local health care and rural development).

In addition, the surrounding areas also have similar problems to the province of South Sulawesi: that is, underdeveloped economic infrastructure and a low value-added regional economic structure. In response, from 2007 to 2012, JICA implemented the Northeastern Indonesia Regional Development Project in six provinces in Sulawesi and two provinces in Maluku, in order to disseminate the outcomes of the projects implemented in South Sulawesi, where human (social) connections as well as distribution (economic) connections are geographically and historically strong. The Sulawesi Capacity Development Project, which constituted part of the program, was intended to enhance the capacity to proactively plan and implement a project by utilizing regional resources, and to encourage cooperation between the community and local government.

Based on the needs of the local community as people participating in development, the Regional Infrastructure for Social and Economic Development Project, which was initiated with ODA loans in 2007, targeted communities with high poverty rates and sought to develop basic infrastructure in six sectors: (1) transport, (2) water supply and sanitation, (3) production, (4) the market, (5) health, and (6) education. The goals of the project were to increase economic opportunities for people living in poverty and improve access to social services, thereby helping to reduce poverty and ensure the sustainable development of local economies. The project also aimed to strengthen capacity development for local government, as well as the welfare of people in local communities through support in formulating development plans.

Double the rice production of Sub-Saharan Africa within a decade

According to the FAO, the level of the undernourished population reached 925 million people in 2010, partly due to rising food prices. In Sub-Saharan Africa (which has the world’s highest percentage of malnourished people), both the production and consumption of main grain crops have been rising. However, looking at the entire region, supply and demand are nearly in equilibrium in terms of corn, millet and sorghum, but production of rice and wheat is unable to keep up with consumption, which has drastically increased in recent years. The self-supply rate is 60% and 30% in rice and wheat, respectively. As a result, imports from Asia and North America have been growing year by year. Among other major grains in Africa, rice is thus thought to have significant potential for greater production within the region. Given this background, international assistance for the expansion of rice production is expected to help sustain medium-term food security and improve the self-supply rate. Also, the increased production of rice as a cash crop could contribute to rural development and poverty reduction.

JICA announced the Coalition for African Rice Development (CARD) at TICAD IV (see Column 5 on page 26) in May 2008, in partnership with the Alliance for a Green Revolution in Africa (AGRA). CARD is a strategy to assist self-help efforts towards the expansion of rice production in Africa. It also serves as a consultative group of donors aiming to strengthen efforts to increase rice production in African countries. The ultimate objective is to double rice production in Sub-Saharan Africa in the next decade (that is, from 14 million tons to 28 million tons per year).

As a region, Sub-Saharan Africa is estimated to have an area of approximately 20 million hectares of unused lowlands suitable for paddy fields. The proper cultivation of such land is expected to enable the region to continually increase rice production. In addition to expanding areas of production, it is also necessary to increase yields per unit area in the future.

CARD seeks to improve rice production overall in terms of both productivity and capacity, by selectively applying rice varieties suited to three cultivation systems: irrigated fields, rainfed lowlands and rainfed uplands. It also provides support to improve cultivation techniques and increase necessary inputs (e.g., water, good seeds and fertilizers). In particular, there seems to be great potential for disseminating NERICA (New Rice for Africa; see Column 2), a variety suitable for a field environment in rainfed lowland cultivation, for which improved techniques have yet to be introduced. Rainfed lowland cultivation also has great potential for expanding farmland. Proper cultivation techniques must therefore be established and disseminated to expand this type of rice production. For sustainable rice production, it is important to increase value-added production in each phase from post-harvest to sales and distribution.

While expanding its cooperation efforts in promoting rice cultivation, JICA supports enhancing food security by working together with developing countries in Africa to formulate and implement the National Rice Development Strategies (NRDS). These strategies are the basis for promoting CARD’s expansion of rice production. JICA’s approach emphasizes capacity development for people who engage in rice cultivation, and fully utilizes the Asian experience and knowledge that made the Green Revolution possible.

Column 2

NERICA (New Rice for Africa)

NERICA was developed at the West Africa Rice Development Association (currently the African Rice Center) by crossbreeding rice from Asia and Africa. It is high-yielding, matures early and is disease-resistant, which are traits that create high expectations for increased rice productivity through upland cultivation in Africa. Japan has made substantial contributions to the development of NERICA through financial assistance and support to university-based research. At present JICA is engaged in distributing NERICA, specifically by providing assistance to distribute it to farmers in Uganda, Tanzania and Cameroon.

An expert explaining rice growth at an experimental farm

Notes: The countries in parentheses belong to the second group.

Sources:

African Rice, ARD, AGRA, IFAD, NERICA, JICA, IBRD, FAO, JICA, USAID, etc.

Columns

Partners/Donor organization:

IFAD, WFP, UNDP, USAID, etc.

Core Organization:

African Rice, ARD, AGRA, IFAD, NERICA, JICA, IBRD, FAO, JICA, USAID, etc.

Implementing Framework

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Eradicate Extreme Poverty and Hunger

JICA’s Approach to Poverty Reduction and Hunger Eradication

People living in poverty in developing countries are exposed to the risk of even worse living conditions due to the impacts of economic crises, conflict and disasters. Furthermore, the disparity between the rich and the poor is a factor that can destabilize society. For poverty reduction, it is necessary to expand employment opportunities and strengthen public services through equitable economic growth that takes into consideration the needs of the poor.

JICA has been working for the goal of poverty reduction by providing comprehensive assistance in terms of human resource development and capacity development, improvements in policies and institutions, and the development of social and economic infrastructure. At the same time, JICA has strengthened its efforts to increase and stabilize the supply of food and promote effective and food distribution in developing countries, supporting the goal of eradicating hunger. This is particularly important in Sub-Saharan Africa where the prevalence of malnourishment in the population poses a serious problem.
Achieve Universal Primary Education

JICA’s Approach to Education

Education is the essential foundation of development. By acquiring knowledge and skills through education, people will be able to explore and fulfill their own potential throughout their lives and enjoy their future. As a whole, education helps to facilitate economic growth, poverty reduction and the development of scientific technologies. At the same time, for the world’s stability and peace, education plays an important role in promoting mutual understanding beyond religions and ethnicities.

In recognition of these benefits, Japan has been promoting cooperation in education with a focus on improving access, quality, and management. To help expand access to education, by fiscal 2010, Japan had built or renovated more than 8,800 primary and secondary schools in 47 developing countries, where approximately 2.1 million students are learning every year. In recent years, Japan has placed particular emphasis on Africa, where it has built or renovated over 2,700 primary schools in 22 countries and 950,000 students enjoy learning in an improved educational environment.

In order to quantitatively improve education, JICA has been providing its cooperation with a focus on teacher training and development instruction guides for teachers, particularly in science and mathematics. A total of approximately 200,000 sets of instruction guides have been distributed so far. JICA has also supported the development of a learning system for enhancing teaching skills, where teachers are able to learn from one another within the same school. Teachers who acquire new teaching methods and knowledge gain more self-confidence, and they tend to offer attractive classes in which students are given opportunities to think individually, which yields positive effects.

In the area of management, JICA has committed to improving school management and strengthening the administrative functions of local governments in education. JICA has facilitated establishing school management committees and parents’ associations for the local community and parents to become main actors in understanding and solving problems embedded in schools and the community. JICA has also provided training courses to develop the capacity of education administrators to manage these organizations. This area of cooperation has covered approximately 16,000 schools and more than 2 million people, primarily in Africa and Asia. The effects of such cooperation have included a large increase observed in the number of school-enrolled children and graduates and a dramatic decline in the dropout rate.

Japan has a long history of recognizing the importance of education as the foundation of national development, and has succeeded in developing scientific technologies and industries by building human capital through education. In the process, the right to education has been assured for all individuals, thereby building a fairer and stable society. Based on Japan’s experience, JICA maintains a firm commitment to education and provides its development assistance to institution building and networking in developing countries.

Universal education: Schools of the community, by the community, for the community

Schools in Niger, which is one of the world’s poorest countries, are faced with a wide range of problems including inadequate classroom facilities and teaching materials, insufficient school hours and a lack of opportunities for in-service teacher training. As a result, in 2004, school enrollment in primary education remained 50%. Many children dropped out of school after enrollment due to problems with school or family, and the school completion rate hovered as low as 32%.

In order to change such conditions, in 2004 the local community took a new step to improve school management by using their funds and labor. This action was set in motion by JICA’s project support to the Improvement of School Management through Community Participation in Niger, in which parents, teachers, the community and administrators came together to work for school improvement. More specifically, the members of school management committees organized at schools were democratically elected, and, with the support of public administration, these committees took the lead in formulating and implementing an action plan for improving school affairs.

School management committees have already been established at schools all over the country, and efforts on behalf of the school have been ongoing at approximately 10,000 schools, attended by about 1.55 million children. The learning environment in many schools has been improved by renovations to school buildings performed by the local labor force, and by additional textbooks and teaching-learning materials purchased with donations from the community. At the same time, the study environment at home has been transformed because the community’s consciousness of education has been raised. Moreover, teachers are also highly motivated by the support from the community.

In 2004, when the project started, the school enrollment in primary education was 50%, and it had increased to 68% by 2009. The number of children enrolled increased from 980,000 to 1.55 million within this period. The school completion rate also rose from 32% to 50% with an increase in the graduation examinations pass rate. Furthermore, the number of girls enrolled in school has also greatly improved in recent years.

In addition, this JICA project has also supported the establishment of community kindergarten in collaboration with UNICEF, which has a rich store of experience in training kindergarten teachers. The management of these community kindergartens is carried out by local people with input from the school management committees. By the end of 2009, 165 kindergartens had been built where some 10,000 children have been given an opportunity to receive preschool education. The majority of the children who finished kindergarten went on to primary schools, thereby contributing to raising the school enrollment rate in primary education.

Following this success in Niger, JICA launched similar projects in neighboring West African countries such as Senegal, Mali and Burkina Faso, which have common problems with school management. These projects are being implemented to improve learning environments by establishing school management committees at 800 schools (for 90,000 students) in Senegal, 1,600 schools (for 300,000 students) in Mali and 1,400 schools (for 230,000 students) in Burkina Faso.

Approach to cooperation for education

In response to the diverse educational development needs of different countries, JICA has been expanding its assistance to education by drawing on the richness of its cooperation experience.

Connect schools with policies

Practical experience gained in the field of education is accumulated, shared and connected to organizational and institutional improvements.

The channel between policy and the field is strengthened.

Use strategic assistance schemes

Technical cooperation, grant aid and ODA loans are strategically combined to produce maximum effects.

Respect ownership by the developing country

Cooperation is provided in cooperation with development partners according to the education development plan of the recipient country.

Share experiences and outcomes

JICA has been promoting networking type measurers where the experiences and past outcomes of different countries are shared and utilized by other countries or regions that are faced with similar problems.

Attach importance to outcomes

The ultimate objective is to enhance the capacities of children/learners by providing high-quality education.

JICA will design and implement programs/projects with stronger emphasis on outcomes.

World “Terakoya” Movement

Japan’s modern school system began in 1871. After stages in which four years of education was made compulsory (1886) and free primary education was provided (1900), the present modern education system was nearly in place by approximately 1920. However, during the Edo period (1602 to 1867), before the institutionalization of school education, there were various learning institutes around Japan such as clan schools and private schools for the warrior class, and community schools called Terakoya. Among these schools, the Terakoya played an important role in the dissemination of education in Japan, in places where anyone could attend to learn reading, writing, counting on the abacus and other practical life skills regardless of their class or age. The National Federation of UNESCO Associations in Japan (NFUAJ) has been advancing the UNESCO World Terakoya Movement to offer places of learning like Terakoya in today’s world, to benefit children who are deprived of the opportunity for schooling and adults who are not literate.

In order to promote this movement, NFUAJ implemented a grassroots grant aid project together with JICA, the Project to Extend the Community Learning Center in the Northern Hill Area in Vietnam (2003-2005), thereby supporting literacy education provided by NGOs and local administration organizations in developing countries. 

Election of the members of the school management committee

Smiling children gather together with their handcrafts made in the class
Promote Gender Equality and Empowerment Women

JICA’s Approach to Promoting Gender Equality

Gender equality and women’s empowerment are important development issues for the international community as well as being cross-cutting issues that are deeply involved with other agendas. The Government of Japan stated in its ODA Charter that “the perspective of gender equality is important,” and that “Japan will make further efforts to improve the status of women, giving full consideration to the active participation of women in development.” It has therefore undertaken a range of development assistance activities to achieve these aims.

JICA promotes “gender mainstreaming,” which is a comprehensive approach to incorporating the perspective of gender in all stages of planning, formulation, implementation, monitoring and evaluation in all policies, programs and projects to clarify gender-based development issues, needs and impacts.

Promotion of school attendance by girls in Yemen

Yemen is among the nations with the world’s largest disparity in access to basic education between men and women. The genuine school enrollment rate for primary education (first through sixth grades of elementary school) is 85% for boys but 65% for girls. The male adult literacy rate is 76% while that for women remains as low as 39%. In this situation, JICA implemented the technical cooperation project Broadening Regional Initiative for Developing Girl’s Education (BRIDGE) together with the Ministry of Education and the Regional Initiative for Developing Girl’s Education Project answered affirmatively to the statement “Both boys and girls equally have rights to education.” However, at the end of the project, this dramatically increased to 96.6%. Four points can be considered to be the main reasons why the outcomes of the BRIDGE model were so highly appreciated. The first is the involvement of religious leaders and the utilization of religious (Islamic) messages. People without basic literacy had a chance to understand such messages through talks by religious leaders and radio broadcasts. The second reason is the creation of a mechanism to take up suggestions from mothers by establishing Mothers’ Associations to reflect women’s opinions on school management.

Spreading a network among trainees

In developing countries where more than half of the population lives in rural farming areas, women are responsible not only for housework and child care but also for farm labor. The low productivity of most farm work results in a severe form of subsistence. Furthermore, extreme manual labor can ruin health and result in malnutrition, which are some of the many problems that women face in farming villages. In order to improve this situation, JICA has implemented group training called Empowerment of Rural Women every year since 1980. For instance, trainees have exchanged opinions with members of the Life Improvement Group, which takes an active part in vitalizing Japanese communities.

Women in the training course, learning food-processing techniques that utilize local foods. Ms. Munafga, former trainee from Zimbabwe, teaches these techniques in her country.
Maternal and Child Health Handbook goes to Indonesia, Palestine and the world

The Maternal and Child Health Handbook (referred to as the “Mother-Child Handbook”) is produced for the purpose of recording personal health information regarding antenatal care, vaccinations, childbirth and the growth of children. It is useful as a reference tool for maternal and child care from the fetal stage. In Japan, the system of distributing handbooks for pregnant women and nursing mothers was established in 1942. The Handbook is distributed in Indonesia, as a doctor from Central Java Province who had participated in JICA training in 1993 had been inspired by the Japanese Mother-Child Handbook. Subsequently, with the cooperation of JICA, an Indonesian Mother-Child Handbook was brought to the city of Salatiga in Central Java Province (population 150,000) on a trial basis. The Ministry of Public Health of Indonesia recognized the value of the Mother-Child Handbook and decided to introduce the Handbook into the country as a national program and gradually increased its introduction to other areas. In 2004, the Ministry of Public Health issued an order by the Minister of Public Health to institutionalize the use of the Mother-Child Handbook and to formally position the Handbook as a part of national health policy.

To continue to support such an initiative of the Indonesian Government, JICA implemented the technical cooperation project Ensuring Maternal and Child Health Service with the Mother-Child Health Handbook (from October 2006 to September 2009). It was expected that the Mother-Child Handbook would function as a method for consolidating various existing kinds of maternal and child health services (such as antenatal care, vaccinations, nutrition and family planning), and that it would enable a continuum of care at any health facility.

Mother-Child Handbook activities have been joined not only by the Government of Indonesia, but also by international organizations and other donors, and the Handbook is currently in widespread use in Indonesia. According to a national household survey conducted in 2010, the Mother-Child Handbook has been introduced to 68.5% of pregnant women.

Furthermore, with support from JICA, in 2007 Indonesia began to share its own experience with the Mother-Child Handbook with eight other countries, including Palestine and Afghanistan. It can thus be said that the Mother-Child Handbook is spreading worldwide.

In Palestine, where the first Arabic version of the Mother-Child Handbook was provided, JICA has been providing cooperation regarding the introduction of the Handbook since 2005. The technical cooperation project Improving Maternal and Child Health / Reproductive Health in Palestine (Phase 2) (from November 2008 to November 2012) is now underway. JICA supports the dissemination of the Mother-Child Handbook, as well as the qualitative and quantitative expansion of maternal and child health services. In Palestine, a cooperative system has been established involving the Government, the UN agencies and NGOs. As of 2010, it had been confirmed that 90% of the women living in the West Bank and 60% in the Gaza Strip (where activities by Japanese experts had been limited for security reasons) had received the handbook and utilized the Mother-Child Handbook during pregnancy and childbirth. As the Health Agency then began full-scale dissemination of the Mother-Child Handbook in the Gaza Strip, nearly all mothers in the politically divided autonomous region of Palestine are considered to have received the handbooks.

Japan’s Insight 3

Improvement of Hospitals with SS (Sort, Set, Shine, Standardize and Sustain) and Kaizen

“SS” (sort, set, shine, standardize and sustain) and kaizen (a problem-solving method with employee participation), which are Total Quality Management (TQM) methods developed in Japan, provide a framework and method for improving the quality of services and safety. JICA adopts a “5S-kaizen TQM approach,” in which these two methods are introduced in a step-by-step manner, in order to implement its Program for Better Hospital Services among medical facilities in 15 African countries.

In this program, hospital management staff and health administration officers are invited to a training course in Japan and Sri Lanka, which has had a successful experience implementing SS and kaizen. Participants acquire SS and kaizen theory and methods through lectures and visits to factories and hospitals where the 5S-kaizen TQM approach is actually functioning. This training is expected to help the participants to become leaders in their own countries, and practice and spread the SS method for improving hospital management.

Many hospitals in Africa operate facing a number of difficult problems, such as a lack of personnel, including doctors and nurses, and insufficient facilities, medical equipment, and budgets for facility operation expenses and personnel costs. In Tanzania for instance, as a result of the step-by-step introduction of SS-kaizen, each department has been perfectly cleaned up, with management of the stock of equipment and supplies being conducted efficiently. Hospital staff members have become more aware of efficient operations and patient-oriented medical services; they are able to analyze problems using various kinds of data, and adopt measures by themselves. At present, all hospitals in Tanzania intend to introduce the 5S-kaizen TQM approach. National guidelines have already been established. As mentioned above, the 5S-kaizen TQM approach improves the workplace environment, raises the awareness of workers and enhances the quality of hospital services, even if the severity of the circumstances means that the improvement is only marginal. This approach is expected to advance sustainable development of healthcare in Africa.
HIV/AIDS

JICA has provided technical cooperation in 14 countries since 2000 to strengthen national HIV/AIDS programs, promote prevention activities, strengthen HIV testing and counseling services, improve drug supply systems, and establish monitoring and evaluation systems. Moreover, JICA has contributed to reducing new HIV infections, to improving access to care and treatment, and to improving the quality of life of people living with HIV.

Tuberculosis

Since 2000, JICA has provided technical cooperation in 14 countries since 2000 to strengthen national TB control programs, to improve the case detection rate and cure rate by enhancing systems for examination, diagnosis, treatment, and tracking of patients, as well as by providing medicines and testing equipment. Cambodia has achieved the global target level a 70% case detection rate and 85% cure rate.

Malaria

JICA has provided support to control malaria in 26 countries since 2000 to strengthen national malaria control programs, to improve the case detection rate and cure rate.

Chagas disease

JICA has provided technical cooperation in 14 countries since 2000 to strengthen national Chagas disease programs, to improve the case detection rate and cure rate.

Efforts in Zambia, where adult HIV prevalence is as high as 14.3%

Worldwide, 34.2 million people are living with HIV, and about 23.5 million of these people reside in sub-Saharan Africa (UNAIDS, 2011). The HIV prevalence in adults in Zambia is 14.3% (UNAIDS, 2011). The national population of approximately 13.2 million people, 0.9 million are living with HIV, and it is estimated that about 50,000 to 60,000 people die from AIDS-related causes every year. The Government of Zambia has stated that HIV/AIDS is one of the most pressing issues facing its national development. In response to this situation, JICA has implemented its Support Program for Measures against HIV/AIDS and Tuberculosis. This program aims to reduce the number of deaths from AIDS by increasing access to treatment for AIDS and tuberculosis, and also by improving the quality of this treatment. JICA has conducted comprehensive support activities in this program for measures against HIV, focusing on each stage of prevention, diagnosis, treatment and care. At the same time, the organizational abilities of the central and local governments to implement measures against HIV and tuberculosis have also been cultivated.

JICA implemented the Project for Strengthening HIV/AIDS Laboratory Network Services (from June 2007 to May 2010) to establish a system for Laboratory Network Services (from June 2007 to May 2010) to establish a system for Laboratory Network Services.

Infectious diseases such as HIV/AIDS, tuberculosis, polio, malaria, Chagas disease and influenza A (H1N1), have been cultivated.

The Afghanistan National Development Strategy (ANDS), announced in April 2008, prioritizes the provision of healthcare and organizational capacity development. To support health administration agencies in Afghanistan to formulate effective policies and manage policy implementation in support of the ANDS, JICA has undertaken the Strengthening the Health System Program (from 2008 to 2014). It also has the aim of improving overall efficiency in the health system, including the parts that are managed by the private sector.

The leading cause of death in Afghanistan is infectious diseases, and tuberculosis in particular accounts for a large percentage of fatalities. As a part of the above program, JICA implemented the technical cooperation project Afghanistan Tuberculosis Control Project which began in October 2009. JICA provided support to Afghanistan’s NTP (National TB Control Program) for the preparation of guidelines necessary for national tuberculosis control. In the second area, JICA supported the development of human resources for accurate examinations and diagnoses, by providing training for administration officers in charge of tuberculosis control at the national, provincial and district levels and for laboratory technicians at hospitals. In the third area, JICA adopted an approach to provide tuberculosis treatment based on the DOTS method to all people in Afghanistan by providing training to health service workers and by raising the awareness of the local population.

In 2002, the Government of Afghanistan launched its Basic Package of Health Services for Afghanistan (BPHS) to promote health and medical services in 11 categories, including maternal and child health, emergency obstetrical care, child malnutrition and tuberculosis. Since then, it has tried to make an effort to provide the BPHS to primary and secondary health facilities all over the country and to implement international medical standards (such as DOTS) in each of its 11 categories. The Afghanistan National Development Strategy (ANDS), announced in April 2008, prioritizes the provision of healthcare and organizational capacity development. To support health administration agencies in Afghanistan to formulate effective policies and manage policy implementation in support of the ANDS, JICA has undertaken the Strengthening the Health System Program (from 2008 to 2014). It also has the aim of improving overall efficiency in the health system, including the parts that are managed by the private sector.

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As a result, the treatment success rate, which was 84% as of 2001, reached and remained at 89.5% after 2005, exceeding the original goal of 85%. In addition, the case detection rate, which was 66% as of 2006, increased to 73% in 2008, exceeding the original goal of 70%.

Additionally, in order to secure funds for Afghanistan from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), JICA provided technical support for the NTP with its application in 2009. In this way, the NTP was able to secure funding of approximately 30 million dollars from GFATM between 2009 and 2013 for the purpose of tuberculosis control.

JICA is currently in the midst of implementing the second phase of the five-year Afghanistan Tuberculosis Control Project, which began in October 2009. JICA is also functioning as the Principal Recipient of the GFATM funding, and continuously supporting tuberculosis control in Afghanistan.

JICA’s Approach to Infectious Disease Control

Infectious diseases are common problems that threaten human beings all over the world. To combat infectious diseases such as HIV/AIDS, tuberculosis, polio, malaria, Chagas disease and influenza A (H1N1), JICA is providing support for enhancing health systems, human resource development, and research at each stage of prevention, diagnosis and treatment. At the same time, JICA has been promoting the development of systems under which developing countries take the initiative in implementing such measures. JICA has also worked in close cooperation with international organizations such as the WHO to pursue the goal of preventing the spread of infectious diseases.

Contribution of a Japanese Private Company to Protect People from Malaria

Malaria is a mosquito-borne infectious disease that is widespread in the tropical zone. According to the WHO’s World Malaria Report 2011, there were 655,000 deaths caused by malaria worldwide in 2010, and 91% of these deaths occurred in Africa. Although the use of mosquito nets, especially those treated with insecticide, is effective in preventing malaria, it takes time and money to maintain them by periodically soaking them in insecticide liquid, as they become less effective after repeated washing. A new mosquito net called the Olyset Net—which has been newly developed by Sumitomo Chemical, a Japanese company founded in 1913—has thus gained attention for the long-term effectiveness of its insecticide-treated chemical fibers, which can endure for more than five years. The structure of the nets has better durability and enables more airflow: The WHO recommends the use of the Olyset Net, and many developing countries hope that it will become widely available. Thus far, JICA has provided mosquito nets including Olyset Nets to 24 countries in Africa in order to prevent malaria.

Protect people from tuberculosis

2 Directly Observed Treatment Short-course: Name of the primary health services method for detecting and treating tuberculosis patients, which is a comprehensive strategy to combat tuberculosis worked out by the WHO.

3 Patients with tuberculosis continue to increase at a rate of 60,000 people per year, and it is estimated that there are 12,000 deaths from tuberculosis annually (WHO, 2010). Afghanistan is designated by the WHO as one of the 21 "high burden" countries regarding tuberculosis.
Ensure Environmental Sustainability

JICA’s Approach to a Safe Water Supply

Roughly 780 million people worldwide do not have access to safe drinking water, and 1.8 million children lose their lives every year due to diseases attributable to infected water. In addition, women and children often spend a long time collecting water and lose opportunities for work and education.

Since the 1970s, Japan has been cooperating in the study, design and construction of water supply facilities such as boreholes and water treatment plants. In the past five years, it has provided safe water supplies to 22 million people in 53 countries. However, even if water supply facilities have been provided, their operation and maintenance is often problematic in developing countries due to insufficient collection of water fees, a lack of technical capacities in operators, unfavorable environments that impede prompt repairs, and so on. Moreover, without improving hygiene practices, a safe water supply alone cannot prevent water-related diseases such as diarrhoea.

To address these issues, Japan is offering comprehensive support that covers not only constructing water supply facilities but also their operation and maintenance (O&M), as well as providing toilets and improving hygiene behavior. In the past five years, it has trained more than 14,700 water professionals working on O&M of wells and water treatments plants.

Dramatic improvement of the water supply coverage rate in Phnom Penh

Water supply utilities in Cambodia were in a critical situation, with deteriorating facilities and insufficient human resources. Faced with such a situation, the government set up a target of increasing the rate of access to water supplies in the urban population to 80% by 2015. In 1993, just after the civil war, Japan formulated a water supply master plan for Phnom Penh, the capital of the country, and has subsequently supported the construction of extensive water supply facilities and the development of the technical and managerial capacity of the local water utility (PPWSA). In the 15 years between 1992 and 2006, the water supply coverage rate for the city improved from 25% to 90% and the non-revenue water ratio dramatically decreased from 70% to 8%. Moreover, the operators of the PPWSA who acquired technical skills are now providing training as instructors for the water supply utilities of eight provincial capitals, generating significant results. In 2009, Japan decided to provide an ODA loan for expanding water supply networks in the Phnom Penh suburbs. This will enable the PPWSA to supply safe drinking water to about 470,000 people in areas where no public water supply service had been available, thus further contributing to achieving the MDGs.

Empowering rural communities in Senegal

In rural communities in Senegal, about 40% of the local people have no access to safe drinking water. They face severe suffering from water-related diseases and exhausting workloads associated with fetching water from distant sources. Japan has assisted in constructing and rehabilitating borehole-based water supply facilities through grant aid in combination with enhancing community-led operation and maintenance through technical cooperation. The Technical Cooperation Project on Safe Water and Support on Community Activities (first phase, February 2003 to January 2006; second phase, November 2006 to March 2010) significantly contributed to improving the health and welfare of local people. It did so by encouraging the establishment of water management associations to ensure proper operation and maintenance of water facilities by members of the community themselves; by promoting construction of toilets and good hygiene behavior; and also by generating incomes through vegetable cultivation and other production activities utilizing water saved by the community.

Through these initiatives, the number of people who have access to safe drinking water has increased by about 750,000 since 1990. This figure amounts to some 60% of the numbers required to achieve the MDG target, which is to halve the number of people with no water supply before 2015. The government and people of Senegal have favorably evaluated Japan’s cooperation.

Japanese satellite technology saving Amazon rainforests

The conventional approach to forest protection was planting to increase the number of trees. Recently, the global trend has been to assign more importance to preventing deforestation, because cutting down trees occurs much faster than planting. In Brazil, monitoring activity has been ongoing to prevent the destruction of rainforests due to widespread illegal logging. However, in the Amazon region, where thick clouds cover the sky for the half the year, the existing logging monitoring system could not offer satisfactory results because the field of view was often blocked by clouds. To address this issue, in 2009 JICA started a project called Utilization of ALOS’ Images to Support Protection of the Brazilian Amazon Forest and Combat Illegal Deforestation. This project introduced a monitoring system based on a Japanese artificial satellite named DAICHI (ALOS), which was able to monitor the earth’s surface though the clouds, and shared the latest remote sensing technologies with Brazil. This project has made a significant impact on monitoring illegal logging in the Amazon.

Spread the Spirit of “MOTTAINAI” in All Over the World

Many cities in developing countries are facing poor sanitary and environmental conditions resulting from rapid urbanization, such as scattered garbage and informal dumping. The three Rs—Reduce (the amount of waste generated), Reuse (items or parts of items which can be still used) and Recycle (waste itself as resources)—are important actions to tackle these issues. The Japanese Government has taken the initiative with the 3Rs worldwide: since it proposed the 3R Initiative at the G8 summit in 2004, the late Watarai Masahito, a former Vice Minister of the Environment in Japan, also promoted the spirit of “mottainai” around the world. JICA is conducting cooperative projects with developing countries to establish a 3R model with the spirit of “mottainai.” In the Republic of the Fiji Islands, the Waste Minimization and Recycling Promotion Project (3R) was implemented from October 2008 to March 2012.
JICA’s Approach to Trade and Investment

Recent years have seen the emergence of a highly-globalized world economy, and many developing countries are trying to expand their economic activities by participating in international production networks and marketing their products to international consumers. Remarkable economic growth in East Asia, which has greatly benefited from the globalization process, has contributed to a significant degree of poverty reduction. Trade represents an opportunity where the international community can support the economic growth of developing countries, which will in turn reduce poverty. Given this background, “Aid for Trade” in international cooperation is increasingly considered to be an important strategy in the international donor community.

Support for development and integration in the Mekong region

The Mekong region, comprising Cambodia, Thailand, Vietnam, Myanmar and Laos, is currently experiencing record economic growth largely due to trade and active private sector investment.

The Japanese Government announced the Japan and Mekong Region Partnership Program at the Japan-Mekong Foreign Ministers’ Meeting in 2007. In November 2009, a meeting between the Heads of Government of Japan and the Mekong region countries set forth an action plan consisting of 63 items known as the Tokyo Declaration. These moves demonstrate Japan’s support for the further development of the Mekong region.

JICA is supporting development and integration in the Mekong region by supporting the establishment of cross-border transportation infrastructure and human resource development. The aim of its cooperation is to realize “economic corridors” across countries as well as to correct disparities, which is a common issue for the countries in the Mekong region.

Support for one stop border posts in Africa

As a driving force for accelerating economic growth in Africa and promoting sustainable economic development, close attention is paid to infrastructure that covers wide areas, such as international road networks and power grids connecting multiple countries. In particular, many countries put their hopes on economic corridors that connect major ports and inland states to the main logistics routes.

The logistics for inland states are difficult for reasons beyond insufficient road infrastructure. For example, it takes several days just to finish the process of crossing a border because of bureaucratic customs procedures, insufficient capacities of border officials and poor border control facilities. Under such circumstances, JICA has promoted the concept of a one-stop border post (OSBP). This is a system where two adjacent countries can complete all border-related procedures in one location, including embarkation/entrance procedures and customs examinations, which have conventionally been performed individually in each country.

To ease the process of crossing national borders, JICA started to support the implementation of OSBPs in Africa at Chirunda, the national border between Zambia and Zimbabwe. The number of OSBP locations has currently risen to 14, mainly in East Africa.

Transferring knowledge and experience from Asia to Africa: Triangular cooperation between Japan, Malaysia and Zambia

In the late 1960s, Malaysia initiated governmental projects to expand the domestic market, secure employment and achieve economic growth. These included industrialization projects and developing labor-intensive export industries, as well as introducing foreign capital by establishing a free trade area. By 1980, the country had developed into the world largest semiconductor exporter. To apply Malaysia’s experience to supporting economic growth in Africa, with the cooperation of Mr. J. Jegathesan, former Deputy Director General of the Malaysian Industrial Development Authority, JICA conducted a study on how to support an environment conducive to more investment and economic growth in Zambia. Mr. Jegathesan supported Malaysia’s industrial growth under the Mahathir administration and has abundant experience as an expert in trade and investment promotion in international institutions.

Based on the results of this study, the Zambian Government is promoting a nationwide investment environment improvement policy called the Triangle of Hope (ToH).

The ToH focuses on a coherent mission and mutual collaboration among politicians, administrators and private businesses as a basic condition for promoting investment. More specifically, it requires (1) government will, (2) efficient administration, and (3) active participation by private businesses.

To activate the government’s will, the Zambian Government set up an operation committee consisting of the Special Assistant to the President for Economic Affairs, the Administrative Vice Minister of Commerce, Trade and Industry, and the director of the JICA Zambia Secretariat. This committee discusses and makes decisions on important issues and periodically reports its progress to the President. In addition, to realize efficient administration, the Government of Zambia formed 12 task forces (consisting of five representatives from government and the private sector) to handle important national issues. These task forces develop proposals for improving the legal system, which are implemented by the relevant government agencies. Finally, for the active participation of private businesses, in addition to the aforementioned task forces, which involve representatives from the private sector, the Government also set up an investment promotion mission, including representatives from private businesses, which visited Malaysia and India and held an investment promotion seminar for both the government and private sectors. Zambia then accepted investment missions from Malaysia and India. As a result of concrete business negotiations, joint ventures were set up with Malaysian businesses in three industrial fields: cellular phone assembly, pharmaceuticals and IT. Agreements were also made with India and China to support the implementation of OSBPs in Africa at Chirunda, the national border between Zambia and Zimbabwe.

JICA targets regional integration and economic growth with A Francophone Youth in Chirunda.

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3. Towards the Achievement of the MDGs - New Challenges-

The Importance of Human Security

Thanks to the efforts of countries around the world, progress has been made towards achieving the MDGs; however, the state of progress is not even. It is necessary to accelerate efforts in the regions where delays are serious. Problems such as climate change, rising energy and food prices, and disasters are high risk factors that could be detrimental to achieving the MDGs, and it is essential to take appropriate measures against them. At the same time, more efforts need to be made in peacekeeping around the world through the prevention of armed conflicts and their recurrence. Realizing the MDGs and assuring a state of peace and stability in the world are mutually indispensable to bringing people a better life. However, in countries that have achieved significant economic growth and steadily achieved the MDGs, it has emerged that vulnerable people who are “excluded” because of their income level, gender or ethnicity have seen no change in their situation. Rather, disparities within countries are actually widening in some cases. In today’s deeply interdependent world, better understanding of the security and stability of individuals, not just that of the nation state, is increasingly important. It is therefore essential to establish inclusive societies and systems in which no one will be excluded.

Making the most of Japan’s experience in development and cooperation in Asian countries, JICA continues to support economic growth that promotes poverty reduction around the world. Most importantly, JICA embraces its core value of respecting country ownership by developing countries in their development processes. Furthermore, JICA will share various lessons Japan has learned in its economic development with more people, especially those in Africa. It will also strengthen its partnerships with diverse development actors such as international organizations, private enterprises, civil society and other donor countries, including newly industrializing countries. It aims for inclusive and dynamic development that benefits all people, coping with new challenges in achieving the MDGs that have been brought about by globalization.

3-1 Cooperation Policies for the MDGs

3-1-1 Policy framework

JICA has recognized “human security” as an important concept for achieving the MDGs, which focus on people and take a holistic view of the various threats they face. In practice, JICA has established four practical policies and four approaches that are people-centered and benefit individuals in need.

By reviewing various development issues from the perspective of human security, it becomes clear that the targets of the MDGs are closely intertwined with one another. For example, ensuring access to safe drinking water is expected to contribute not only to improving health conditions, but also to improving standard of living, and to increasing the school enrollment rates. JICA will continue to support both a top-down approach to develop the capacity of central and local governments to protect people against threats and risks, and a bottom-up approach to support people and local communities in acquiring capacities for solving problems on their own, and thus to improve their standard of living.


Basic Principle  People-Centered Approach to Benefit Individuals in Need

Four Practical Policies

- Addressing comprehensively the freedom from fear and want
- Considering benefits for the socially vulnerable
- Aiming to make “protection” and “capacity development” the core of intervention
- Addressing global risks and cross-border issues

Key Approaches

- Multi-sectoral approach
- Top-down (protection) and bottom-up (empowerment)
- Strengthening partnerships with various actors
- Downside risk management (response to downside risks)

More than 68 million school-age children in the world are still unable to attend school. Among those who attend schools, one in four children drops out before graduation. Given this, it is necessary to boost both school enrollment and completion rates. JICA will continue to support education, focusing on: (1) expanding access to schools; (2) improving the quality of education; and (3) improving education management. Specifically, JICA will promote cooperation such as constructing school facilities, improving teacher training programs, and strengthening school-based management with community participation. Furthermore, JICA will support the policy planning process in partner countries by utilizing its findings and experience on the ground. By enhancing such cooperation, JICA believes that it can play a bigger role in the field of education.

Improving health care, prevent diseases and local communities to cooperate to improve health care, prevent diseases and improve education on health issues. JICA supports country-led efforts to establish such self-sustaining systems. While working closely with other donors and partners such as private organizations and NGOs, JICA intends to carry out comprehensive activities to improve health outcomes, including building roads to access medical facilities and developing water systems.

Supporting countries in the water and sanitation sector.

Photo: Atsushi Shibuya

Photo: Kazuhiro Otsuki

Photo: Kenshiro Imamura

Securing water, which is as essential to human life as food, is one of the most important issues of the twenty-first century. It is estimated that 780 million people worldwide do not have access to safe drinking water. There is concern that water is becoming more and more scarce in the context of competition for this resource under conditions of increasing demand, and the magnification of contamination and pollution due to population growth and accelerated urbanization and industrialization. In its postwar period, Japan worked to stabilize its water supply and improve sanitation, taking measures against degradation of the water environment caused by economic growth. It has accumulated knowledge and technologies for measures against non-revenue water including prevention of water leakage. JICA will fully utilize its know-how to support the self-reliant efforts of developing countries in the water and sanitation sector.
The Fifth Tokyo International Conference on African Development (TICAD V), scheduled to be held in June 2013 in Yokohama, aims to reach agreement on an action plan over the five years from 2013 to 2017. The action plan to be adopted at TICAD V is expected to include efforts toward achieving the MDGs beyond 2015.

Confronted with the huge number of issues that Africa is facing, what JICA can do by itself is limited. As the TICAD process has been co-hosted by the United Nations, the UNDP and the World Bank, it is necessary for various organizations to cooperate by utilizing each other’s comparative advantages. JICA will provide support that delivers outcomes to people working together with other organizations under the common objective of African development through achieving the MDGs.

Achieving the MDGs in Africa was considered to be among the highest priorities at TICAD IV (see Column 5) and it is one of the pillars of the Japanese Government’s assistance policy to Africa, alongside accelerated growth and efforts for environmental protection and climate change.

Column 4

Accelerated Efforts on Health and Education

At the United Nations Summit held in September 2010, Japan announced the KAN Commitment with new support policies for health and education, which have shown lagging progress among the MDGs. In terms of health, Japan’s Global Health Policy was introduced, centering on three pillars of maternal and child health, three major infectious diseases, and measures to address global threats such as new influenza viruses. EMBRACE (Ensure Mothers and Babies Regular Access to Care) plays the central role in this policy to ensure a continuum of care from pregnancy to after childbirth.

With a fund of USD 5 billion over five years, EMBRACE aims to reduce the maternal and child mortality rates (MDG 4 and 5) through a sustainable health system. Support to further reduce the three major infectious diseases (MDG 6) is also strengthened through the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). In the education field, Japan has announced Japan’s Education Cooperation Policy 2011-2015. This policy clarifies the role of Japan’s cooperation in education so as to contribute to attaining the internationally agreed goals (EFA and MDGs), to support the education sector comprehensively, and to realize human security through educational cooperation. To this end, Japan will provide USD 3.5 billion and will create a quality educational environment under the internationally agreed goals (EFA and MDGs), to support the education sector comprehensively, and to realize human security through educational cooperation. To this end, Japan will provide USD 3.5 billion and will create a quality educational environment.

In 2006, on the fifteenth anniversary of the TICAD process, the Fourth Tokyo International Conference on African Development (TICAD IV) was held in Yokohama. The Japanese Government announced that it would double assistance to Africa by 2012. It also compiled a list of assistance measures for Africa, which were pledged by the international community in the Yokohama Action Plan, and established a monitoring mechanism (system for checking progress) that includes annual ministerial-level meetings.

The Tokyo International Conference on African Development (TICAD IV) process is an international forum related to the development of Africa, which was started in 1993 on the initiative of the Japanese Government. Based on the principle of ownership and partnership, its aim is to provide open opportunities for a variety of parties to discuss African development with African countries. Its co-hosts include the United Nations Secretariat, the UNDP and the World Bank, and it has been an important platform for making international agreements that support African development.

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The international community, including African countries, has expressed their appreciation for this highly transparent system, and many African ministers attend the annual ministerial-level meeting. There are high expectations for Japanese assistance to Africa through the TICAD process. JICA wishes to contribute to African development, including the MDGs, by carrying out its support activities to reach people in need, and also to contribute to strengthening the relationship between Japan and Africa.

Column 5

The Fourth Tokyo International Conference on African Development (TICAD IV) [May 28-30, 2008, Yokohama]

Empirical Study 1

Case Study on Basic Education in Yemen

Among the MDGs, universal primary education and eliminating gender disparity in primary education are being achieved in many countries. Some countries were once far from meeting the targets but have made remarkable progress. However, there are still children who are not given educational opportunities, and certain areas that are lagging behind in providing them. It is thus necessary to further accelerate efforts for these disadvantaged children and areas. There is also a problem of higher school enrollments not resulting in basic academic skills for children. The need to make new efforts toward improving the quality of education has thus been pointed out.

This study was conducted in Yemen, which is one of the poorest Arab countries and one of the world’s lowest-ranked countries in terms of gender parity in primary-level enrollment. The study addressed the issue of how to reduce the gender gap in school enrollment. In Yemen, in tandem with the government’s Education Development Strategy (2003-2015), a participatory school-based management project named Broading Regional Initiative for Developing Girls’ Education (BRIDGE) (see page 14) was conducted in Taiz Governorate. The study analyzes the changes in gender disparity at pilot schools by using survey data from the project. The results so far indicate that in the first half of the survey period (after three years), the project greatly improved the ratio of female students to male students (i.e., the Gender Parity Index, or GPI). On the other hand, the mid-term observation (at five years) revealed that there are differences in the degree of improvement among schools. The schools that steadily maintained the effects of improvement tended to have school principals with relatively high awareness of gender equality, or had promoted the employment of female teachers in regular positions. These results suggest the need for continuous efforts involving the local community and government, and that an awareness of female education must be established among school principals.

In this study, a survey was conducted in rural areas in Dhamar Governorate, a part of Yemen where gender disparity is especially huge. These areas all remained distant from the goal. The survey was conducted with principals, teachers and students at 40 schools randomly selected in collaboration with the Education Research and Development Center (ERDC), a research institution of the Ministry of Education.

The survey revealed that in the three years following 2007, GPI improved at the schools in general, and that the majority of principals strongly supported promotional measures for female education, such as an exemption from tuition and training for religious leaders. The survey also suggests that the awareness of principals (male or female) was associated with improvement in the disparity between male and female students. This was measured by the question “Is it possible for women to be good political leaders like men?” More than 30% of the principals answered that they strongly agreed. It was confirmed that schools headed by these principals demonstrated better improvement in GPI than other schools. As seen in the analyses conducted for Taiz Governorate, the situations regarding schools and communities vary with regard to factors such as the awareness of the school leadership. The study suggests that more efforts should be made to eliminate inequality in educational opportunities depending on the situation.

In this study, another survey is also being conducted on the relation between the school enrollment rate and the quality of education. About 1,300 male and female students in 40 schools in Dhamar Governorate were subjected to a mathematics test. The test scores tended to be lower for students at the schools where GPI (i.e., gender disparity) improved in a very short period. The same tendency was observed in schools having higher enrollments. The result was unchanged even after controlling for all the variables that are frequently used in statistical analyses (see the Tables). Further detailed analysis is needed. Possible reasons for this result were that schools where GPI and enrollment increased tended to have accepted students with disadvantages in terms of home environment and schooling. Also, these schools could not afford a sufficient number of teachers and teaching materials.

Although narrowing the quantitative gap in education by increasing the enrollment rate and reducing gender disparity are important tasks, the results of the study strongly suggest that the quality of education must also be considered.

Table OLS Estimation in Mathematics Test Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>T-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPI change dummy, 2004-2007 (1: high, 0 other)</td>
<td>-4.081 ***</td>
<td>1.574</td>
<td>-2.588</td>
</tr>
<tr>
<td>GPI change, 2007-2010</td>
<td>-4.069 *</td>
<td>1.690</td>
<td>-2.400</td>
</tr>
<tr>
<td>Student’s gender dummy (1: female, 0 male)</td>
<td>1.614 **</td>
<td>0.760</td>
<td>2.134</td>
</tr>
<tr>
<td>Student’s grade (1: 1st grade, 2nd grade)</td>
<td>1.404 **</td>
<td>0.780</td>
<td>1.780</td>
</tr>
<tr>
<td>Variable group concerning the student’s family characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student’s mathematics homework dummy (1: every day, 0 other)</td>
<td>0.577 **</td>
<td>0.277</td>
<td>2.097</td>
</tr>
<tr>
<td>Frequency of supervisor’s visit</td>
<td>2.068 ***</td>
<td>0.643</td>
<td>3.201</td>
</tr>
<tr>
<td>Characteristics of mathematics teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of teacher’s experience</td>
<td>0.467 ***</td>
<td>0.147</td>
<td>3.149</td>
</tr>
<tr>
<td>Years of teacher’s experience &gt; received training or not</td>
<td>0.027</td>
<td>0.048</td>
<td>0.574</td>
</tr>
<tr>
<td>Teaching method (Frequency of teaching equations for word problems)</td>
<td>1.364 ***</td>
<td>0.427</td>
<td>3.196</td>
</tr>
<tr>
<td>Characteristics of school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence/absence of a workshop on the quality of education attended by parents</td>
<td>2.607 ***</td>
<td>0.742</td>
<td>3.366</td>
</tr>
<tr>
<td>Time of establishing the parent’s association (fathers’ council) (1: five years ago, 0 other)</td>
<td>7.693 ***</td>
<td>2.208</td>
<td>3.484</td>
</tr>
<tr>
<td>Education fee Shouldered by parents (sixth grade students)</td>
<td>3.210 ***</td>
<td>0.946</td>
<td>3.400</td>
</tr>
<tr>
<td>Number of students per teacher</td>
<td>-0.116 **</td>
<td>0.056</td>
<td>-2.010</td>
</tr>
<tr>
<td>Adjusted r value</td>
<td>0.376 **</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Some developing countries have problems with governance and have difficulty in functioning effectively as a central state. Security in many of these countries remains unstable and they are vulnerable to both domestic and international destabilizing factors, such as conflicts and natural disasters. The trust of the people is lacking because state legitimacy is extremely low, and these countries must also struggle with issues such as armed conflict, extreme poverty, terrorism and outbreaks of infectious diseases. An increasing number of countries, especially in Africa, are falling into such adverse situations, making it difficult to achieve the MDGs. One of the lessons learned through the efforts of the international community to achieve the MDGs since 2000 is that merely securing funds for development does not improve the lives of the people in these countries.

In conflict-affected and fragile states, JICA starts its cooperation as early as possible according to progress in the political, social and security situation in each country, ensuring an efficient transition from humanitarian assistance to reconstruction and development. In Afghanistan, for example, about 20 to 60 staff and experts are working in the field at various project sites, even under adverse security conditions, to undertake comprehensive efforts to improve education, health and agriculture. JICA is also engaged in developing urban functions as well as in constructing Kabul International Airport, which underpins economic activities, while at the same time pursuing capacity development at the state and community levels.

**Sudan**

**Improved Public Services**

Sudan has faced several domestic conflicts in its west, south and east. In order to end them and reconstruct the country, JICA is providing comprehensive support, such as capacity building for government officials to properly deliver public services.

In the Darfur region, a comprehensive peace agreement has not been signed. This region has faced fierce conflicts between the government and anti-government groups since 2003, although some of the anti-government forces have signed a peace agreement. Many causes of conflict are intertwined in this region, such as scarce rainfall, desertification, conflicts over natural resources, population pressure, ethnic conflicts and so on. Given the impact of the prolonged conflict, in addition to Darfur, the three Protocol Areas located along the border of Sudan and South Sudan (South Kordofan, Blue Nile and Abyei) are suffering from underdevelopment in basic public services and human resources. In this regard, JICA has been extending various forms of technical cooperation since 2009 in these areas (except in Abyei, for security reasons) to improve the capacity for better services including the water supply, healthcare and vocational training. JICA also supports provincial governments in formulating development plans, and in other areas including public financial management, water supply staff training, health, and vocational training.
Climate change can be a major threat to human security, because it affects ecosystems and people’s economic livelihoods and social wellbeing, and therefore it is an important issue to be addressed globally. While climate change is associated with many uncertainties, changes in the environment, stimulate socioeconomic activities and contribute to climate change mitigation by reducing the use of fossil fuels, coal and firewood. JICA also provides additional cooperation to facilitate the project being registered as a Clean Development Mechanism (CDM) project by the United Nations, thus providing additional cooperation to facilitate the project being registered as a Clean Development Mechanism (CDM) project by the United Nations. JICA also provides additional cooperation to facilitate the project being registered as a Clean Development Mechanism (CDM) project by the United Nations. JICA also provides additional cooperation to facilitate the project being registered as a Clean Development Mechanism (CDM) project by the United Nations.

3-1-5 Climate change measures

Climate change measures

In order to reduce the effects of climate change as much as possible, it is necessary for the global community to adopt measures within a framework that corresponds to diverse risks. JICA provides assistance to adaptation measures according to the needs of each target country. Its efforts have included improving policy-making abilities, producing climate change prediction and impact evaluations, supporting disaster-prevention measures such as strengthening shore protection and embankments, improving drinking water supply facilities, teaching proper water resource management, promoting ecosystem conservation, and introducing drought-tolerant crop varieties.

Meanwhile, the volume of greenhouse gas emissions from developing countries already accounts for approximately half of the world total, and these emissions are expected to increase even more as developing countries continue to engage in economic activities using conventional fossil fuels. In order to minimize the adverse effects of climate change, it is inevitable that efforts to reduce greenhouse gas emissions, namely mitigation measures, are made not only by developed countries but also by developing countries.

JICA is promoting support for mitigation measures that simultaneously enable economic growth and poverty reduction—both of which are urgent tasks for developing countries. Such measures include introducing low-carbon energy, measures for energy conservation, improving urban public transportation systems, waste management and afforestation.

Based on the policies adopted by the Government of Japan, JICA will actively support mitigation and adaptation, and mechanisms to accelerate mitigation and adaptation, by developing countries. JICA will promote such measures according to three guiding principles: (1) climate compatible sustainable development; (2) comprehensive assistance to meet the diverse needs of developing countries; and (3) collaboration with development and climate partners. It will also make use of the experience, achievements and technologies of Japan and JICA.

3-1-6 Disaster prevention

The number of people around the world who die in sudden natural disasters has been increasing. For example, more than 20,000 people were killed in the Great East Japan Earthquake in March 2011, and about 220,000 people were killed in the Haiti earthquake in January 2010. About 90% of the victims of natural disasters occurring worldwide, who were killed or went missing, are counted in countries undergoing development, since development fails to consider disaster prevention. For instance, in such countries, people live in areas with a high risk of disasters associated with rapid urbanization. Overdevelopment degrades the environment and makes an area vulnerable to disasters. Disasters claim innumerable lives and cause economic loss and severe damage to infrastructure. Disasters therefore hinder a country’s sustainable development and threaten human security. Disaster prevention is thus an essential measure for achieving the MDGs.

Japan is a disaster-prone country, which frequently experiences a wide variety of disasters. Based on the lessons learned from disasters in the past, Japan has promoted various disaster prevention measures in developing a legal system, technical guidelines and administrative system for emergency relief, improving preventive facilities, and conducting related training and education.

By utilizing its knowledge and technology related to disaster prevention nurtured by past experience, Japan will strengthen its efforts to increase the capacities of developing countries to respond to disasters.
<Food>

The percentage of undernourished people in developing countries has fallen from 20% in the early 1990s to 16% in the 2000s. However, world food prices started to rise around 2006, and reached a peak in the first half of 2008. Prices have been returning to their previous levels since then, but domestic market prices still remain high in many developing countries. Given this situation, Goal 1 of the MDGs to halve the number of people suffering from hunger by 2015 seems to be difficult to achieve. JICA supports the efforts of developing countries to maintain sustainable agricultural production, and also to establish an agricultural development strategy to ensure a stable food supply for the population (which is an essential development issue) and enhance food security. In terms of this issue, JICA places particular importance on Africa, where it is critical to achieve Goal 1 of the MDGs. JICA is committed to continuing its cooperation in this area through initiatives such as CARO (see page 11).

With an increasing demand for energy causing soaring crude oil prices, energy security has been one of the most important issues in the world in recent years. As well as the electricity, gas, and water supplies that are essential for daily life, energy is also required for infrastructure, including traffic, transportation and communication. Such energy is also vital for industrial development and improving the quality of life.

According to the IEA, while the world consumption of energy in 2007 was about 12 billion tons, it will reach 16.8 billion tons in 2030, and much of this increase will be due to consumption by developing countries. In particular, consumption in Asia is predicted to continue to increase, especially in China and India, which are maintaining steady economic growth.

Not only developed countries, including Japan, which have consumed large amounts of energy in the past to promote economic growth, but also developing countries need to make collective energy conservation efforts to use limited energy resources efficiently, stably and with consideration for the long term. In order to realize a low carbon society with lower greenhouse gas emissions, the introduction of such renewable forms of energy as geothermal power generation and hydraulic power generation, as well as more efficient, low-carbon thermal power generation, will no doubt be expanded.

In the wake of two oil shocks in 1970s, Japan promoted energy conservation measures mainly in the industrial field, and has developed and improved various energy conservation technologies and systems. As a result, Japan's energy efficiency has increased since the first oil shock in 1973, and the country has now achieved the world's highest energy conservation level. JICA will continue to share Japan's knowledge of energy conservation with other countries to contribute to the efficient use of energy and the eventual reduction of greenhouse gas emissions.

<Energy>

About 1.5 billion people around the world are said to have no access to electric power, and about 3 billion people still rely on conventional biomass fuel. “Energy poverty,” which is a situation in which a large number of people are poor and have no access to modern energy, is concentrated in Sub-Saharan Africa and Southern Asia.

Although the MDGs do not include any targets related to energy, international organizations and researchers share the recognition that access to energy is indispensable for socioeconomic development and essential for achieving all the MDG targets. In response to a suggestion from the Advisory Group to the UN Secretary General, the United Nations declared the year 2012 to be the International Year of Sustainable Energy for All, and set the following as goals to be achieved by 2030 and as topics for current discussions: to (1) provide universal access to modern energy services; (2) double the global rate of improvement in energy efficiency; and (3) double the share of renewable energy in the global energy mix.

### Empirical Study 2

**A Case Study on Sustainable and Inclusive Development in Cerrado Agriculture in Brazil**

The Cerrado is a tropical savanna region that lies in the mid-western part of inland Brazil. In the tropical Cerrado region, which had long been known as “baren land,” temperate crops such as soybeans and corn were introduced during the 1970s. In only a quarter of a century since cultivation began on the same scale of production and productivity as in the Corn Belt in the United States, the Cerrado has been transformed into one of the world’s greatest breadbaskets. JICA studied the process of this transformation, and clarified the details of the temperate crops introduced to the tropical Cerrado region, the technical and institutional reforms that supported it, and the role of Japan’s international cooperation that contributed to these reforms. The following is an outline of the study.

The Cerrado was once considered to be a region of vegetation unique to an arid zone, and inappropriate for agriculture. As it is located deep inland, access to the Cerrado both by land and water was extremely difficult. It was believed to be a “baren land.” However, it became clear that the Cerrado actually had the following potential: (1) relatively abundant annual rainfall of 800 to 2,000 mm; (2) soil that could be made fertile by adding appropriate amounts of lime and phosphorous fertilizer; and (3) easy logging and low land development costs due to the shrub vegetation. In 1974, Japan and Brazil announced their intention to work jointly on Cerrado development, and in 1975, the Brazilian government launched the Polo Centro to initiate Cerrado agricultural development as part of its national policy. In 1977, JICA launched a technical cooperation project to support the development of tropical seeds, soil improvement techniques, cultivation techniques for various crops and environment maintenance techniques. The Japanese-Brazilian Cooperation Program for Cerrados Development (PRODECEER) (see Figure 1) was designed over five years, and launched in 1979. When the project was finally completed 22 years later, a total area of 145,000 hectares of farmland had been developed. During those 22 years, in addition to soybeans and corn grown in the Cerrado (see Figure 2), cotton, coffee, tea (black beans) and many other crops were grown to expand production. As a result, the Cerrado now plays a leading role in increasing the volume of agricultural production, and has made Brazil the world’s leading grain exporter. PRODECEER contributed significantly to the process of achieving such success.

The technical innovations that enabled this Cerrado development mainly consisted of a survey on Cerrado soil, the development of soil improvement techniques, and techniques for developing species and seeds to adapt temperate crops such as soybeans to the tropical savanna. Japan had supported these technical reforms through technical cooperation projects even before the start of PRODECEER. During the first phase of technical cooperation alone, Japan dispatched as many as 50 specialists to help strengthen the capacities of Brazilian research organizations.

PRODECEER adapted a base development approach based on settlements led by agriculture cooperatives, which marked a breakthrough in the institutional aspect of the development process. In this base development approach, several bases were formed in the vast Cerrado region, with project operations initially concentrated at these bases, which then expanded into the surrounding areas. This approach was able to accumulate and clusterize agro-economic activities, whereby new industries and employment were generated, and agricultural development

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**Figure 1 Implementation Phase of the Japanese-Brazilian Cooperation Program for Cerrados Development (PRODECEER)**

**Figure 2 Change in production volume of soybeans and corn in the Cerrado over time (unit: tons)**

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**Sustainable Energy for All (SE4ALL)**

According to the International Energy Agency (IEA), the share of renewable energy in the global energy mix will have to be doubled by 2030 in order to achieve Goal 1 of the MDGs. JICA is committed to continuing its supply for the population (which is an essential development issue) and enhancing the quality of life.

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**Mongolian children having lunch in kindergarten**

[Photo: Kinskihiro Inamura]

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**Wind power generation (Egypt)**

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**Column 6**

About 1.5 billion people around the world are said to have no access to electric power, and about 3 billion people still rely on conventional biomass fuel. “Energy poverty,” which is a situation in which a large number of people are poor and have no access to modern energy, is concentrated in Sub-Saharan Africa and Southern Asia. Although the MDGs do not include any targets related to energy, international organizations and researchers share the recognition that access to energy is indispensable for socioeconomic development and essential for achieving all the MDG targets. In response to a suggestion from the Advisory Group to the UN Secretary General, the United Nations declared the year 2012 to be the International Year of Sustainable Energy for All, and set the following as goals to be achieved by 2030 and as topics for current discussions: to (1) provide universal access to modern energy services; (2) double the global rate of improvement in energy efficiency; and (3) double the share of renewable energy in the global energy mix.

---
was achieved. The settlement system of accepting farming families targeting middle-scale farming resulted in flexible, self-controlled and efficient agricultural production based on family farming businesses. As the terms for settlement specified that the settlers were not supposed to own the land, a financial loan system for land purchase was adopted to redistribute the vast unused Cerrado land owned by absentee landlords for small and middle-sized farming families. Agricultural cooperatives led the project so that appropriate human resources were secured among the cooperative members who had the proper capacities and experience, and where appropriate. Settlement was conducted systematically with the involvement of the agricultural cooperatives. Mutual trust, organization power, network power and other social capital gained through activities in the agricultural cooperatives nurtured mutual support among the settlers, and formed an environment where settlers could overcome risks and difficulties. These elements are considered to have significantly contributed to the success of PRODECER.

The development of Cerrado agriculture expanded the value chain, whereby agribusiness was developed. This contributed to expanding domestic employment and reducing problems related to poverty to a great extent. The production value chain that starts from the production of soybeans and other grains and continues through the processing of soybean oil and soybean meal, producing feed, and raising livestock using the feed, to the production of meat and dairy products, was expanded, thereby increasing its value and creating employment opportunities. The expanded production value chain eventually increased the population and number of workers in the Cerrado. Among other things, it was conspicuous that the flow of population into the Cerrado came from the six states in the poorest region in Brazil, called Nordeste (the northeastern region).

The production of soybeans and other grains and the production of soybean oil and soybean meal, producing feed, and raising livestock using the feed, to the production of meat and dairy products, was expanded, thereby increasing its value and creating employment opportunities. The expanded production value chain eventually increased the population and number of workers in the Cerrado. Among other things, it was conspicuous that the flow of population into the Cerrado came from the six states in the poorest region in Brazil, called Nordeste (the northeastern region).

Agricultural development was promoted from the first phase with sufficient consideration of environmental conservation, the environment and ecosystems in the Cerrado. The project is considered to be a pioneer from this perspective.

3-2 Applying the Experience of Asia to the World

3-2-1 Increasingly polarized developing world

The world economy has grown to an unprecedented scale since the turn of the century. According to the IMF, the world GDP in 2000 was about 32 trillion dollars, and it doubled in 10 years to about 60 trillion dollars in 2010. The GDP in Asia, excluding Japan, tripled from about 3 trillion dollars to 10 trillion dollars in the same decade, and poverty reduction in the Asian region has made major advances. With the globalization of the world expanding at an unprecedented scale and speed, Asia is a major market that comprises more than half of the global population of over 7 billion people. Asia is expected to take on the role of the center of global economic growth.

In contrast to Asia, where economic growth has largely contributed to poverty reduction, there are still many low-income countries in Africa, excluding parts of North Africa and Southern Africa. Although Africa’s GDP increased from 0.6 trillion dollars in 2000 to 1.6 trillion dollars in 2010, its share of the world economy accounted for only about 3%. The poverty rate in Sub-Saharan Africa dropped from 56% in 1990 to 47% in 2008, falling below half the population for the first time since the 1981 survey. Despite this, however, 390 million people are still living in extreme poverty.

In comparison with some Asian countries, where dramatic changes have been occurring such that income can increase a hundredfold in one’s lifetime, the market size of each country in Africa is small, and these countries have been largely excluded from the growth of the world economy. There is a concern that in the future the world will become increasingly polarized between regions that have achieved comparatively steady economic growth, such as Asia, and regions that remain underdeveloped, such as Africa.

3-2-2 Success factors and issues in Asia

Based on the understanding that not only social development but also economic development are essential to achieve poverty reduction in developing countries, Japan has contributed to sustained growth in developing countries, especially in Asia. It has done so by improving economic and social infrastructure, which form an important base for economic activities, as well as by cooperating on policy-making and developing systems and human resources.

In Asia, an integrated effort for developing economic and social infrastructure, human resources, and institutions has resulted in the promotion of trade and investment, industry buildup and improved productivity. The private sector has grown accordingly, enabling economic growth and creating additional employment opportunities. This economic growth has contributed to poverty reduction by strengthening the financial base of the governments of developing countries, and has thus allowed for expanded public spending in the education and health sectors.

At the same time, it is necessary to overcome vulnerabilities to economic crises in order to prevent the recurrence of shocks like the Asian Currency Crisis and the World Financial Crisis, and to achieve medium- to long-term sustainable growth. Especially in the Asian region, it is better to shift from an economic structure of dependence on exports to Europe and the United States to a domestic demand-led structure that can tap into demand within the country and the region. In addition, to mitigate the disadvantages of the poor and to enhance social policies to support the expanding middle class and elderly population, these countries in Asia must take action to improve urban functions and planning, correct disparities, and provide social safety nets.
Empirical Study 3

Infrastructure Study of Growth and Poverty Reduction in Indonesian Farms

Infrastructure development in Asia has contributed to poverty reduction primarily through three mechanisms. First, as noted in section 3-2-2 “Success factors and issues in Asia,” infrastructure has underpinned the expansion of business activities and has promoted foreign direct investment and international trade. This has contributed to creating employment opportunities, especially in urban areas, and thus developing infrastructure contributes to poverty reduction. These new employment opportunities are mainly realized in the form of migrant workers and commuters from rural to urban areas. Second, more efficient delivery of social services through infrastructure facilities has directly improved the lives of the poor. Lastly, infrastructure development has improved transport systems, which provides people with better access to markets and increased household incomes.

These three mechanisms that have supported poverty reduction had not been given much attention in international discussions, because figuring out these causal relations is difficult and thus empirical analyses were scarce. Therefore, in partnership with the International Food Policy Research Institute (IFPRI) and the Indonesian Center for Agricultural Socio Economic and Policy Studies (ICASEPS), JICA Research Institute has conducted a household survey of approximately 2,200 farm households in seven provinces in Indonesia. Our empirical analysis is ongoing to investigate the determinants of infrastructure development, growth and poverty reduction.

Infrastructure creating access to employment: Are schooling and roads complementary? Evidence from rural Indonesia

First, we examine whether improving the quality of roads in rural areas has an impact on the labor supply in the non-agricultural sector (excluding migrant workers) to discover relationships between the quality of road infrastructure and the commute from rural to urban areas. Road quality in this study is defined as an average quality of the road surface between villages at the sub-district level. The hypothesis we tested is that improving road quality at the sub-district level enhances access to arterial roads that connect to district centers or provincial capitals, which makes the commute to urban areas possible (Figure 1).

Empirical results show that the impacts of improvements in road quality in rural areas on income growth and transition to non-agricultural activities depend on the distance to economic centers and household education. When roads are improved, people tend to start working in the non-agricultural sector (Graph 1), particularly those who have completed secondary education or above. This indicates that integrated efforts to develop infrastructure and nurture opportunities in primary and secondary education are important for more people to participate in the process of economic growth.

Impact of water quality on child development: Evidence from Indonesia

While previous studies have dealt with the relationship between the quality of water and health, and public services can improve water quality by developing water supply facilities. Our empirical results in Figure 3 show that improvements in water quality by developing water supply facilities increase the likelihood of positive effects on child development. In many cases, the possibilities for embarking on water facility development may depend on the availability of resources and managerial capacities in villages as well as the natural environment, and thus efforts need to be made to overcome such potential difficulties in the future.

The empirical results suggest that it is important to ensure safe water by developing water supply facilities, not only in order to reduce infant mortality but also to encourage child growth and, in the end, to prevent them from falling into poverty.

Working paper (JICA Research Institute)

Improving the environment surrounding a child is thus increasingly seen as a development priority that contributes to the reduction of infant mortality rates and, in the long run, to reducing poverty as well. Therefore the role of infrastructure in child development may need to be re-examined. The quality of water is one of the most significant factors that affect child health, and public services can improve water quality by developing water supply facilities. While previous studies have dealt with the relationship between the quality of water and the infant mortality rate, this analysis by JICA examines the effect of water quality on child development, exploring how water quality could contribute to poverty reduction in the future.

The quality of water in this research is assessed by coliform analysis using test paper. A survey conducted in Indonesia has examined the number of colonies on the test papers after 24 hours from water taken at sources that are used by families. The weight and height of children were recorded by visiting each family. As shown in Figure 2, the results of the coliform analysis of the water sources show that more coliform is found in wells. This indicates that integrated efforts to develop infrastructure and nurture opportunities in primary and secondary education are important for more people to participate in the process of economic growth.

Working paper (JICA Research Institute)

Figure 1 Determinants of Change in Labor Allocation in the Non-agricultural Sector (Source: JICA)

<table>
<thead>
<tr>
<th>Dependent Variables: Changes in Labor Allocation in the Non-agricultural Sector</th>
<th>Estimate(1)</th>
<th>Estimate(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education (High school or higher = 1)</td>
<td>0.2209 (2.33)***</td>
<td>0.2288 (2.82)***</td>
</tr>
<tr>
<td>Change in average road quality × Education</td>
<td>1.491 (2.01)***</td>
<td>1.594 (1.99)***</td>
</tr>
<tr>
<td>Change in average road quality × Distance to the sub-district center × Education</td>
<td>0.0985 (0.69)***</td>
<td>0.054 (0.26)***</td>
</tr>
<tr>
<td>Change in average road quality × Distance to the district center × Education</td>
<td>-0.167 (2.02)***</td>
<td>-0.140 (1.05)***</td>
</tr>
<tr>
<td>Change in average road quality × Distance to the provincial center × Education</td>
<td>0.0118 (1.23)***</td>
<td>0.012 (2.31)***</td>
</tr>
<tr>
<td>Land size</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Village dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rice required</td>
<td>0.0086</td>
<td>0.0005</td>
</tr>
<tr>
<td>Number of observations</td>
<td>565</td>
<td>565</td>
</tr>
</tbody>
</table>

***, ** indicate statistical significance at the level of 1%, 5% and 10% respectively. Numbers in parentheses are absolute t values.

Figure 2 Distribution of Water Quality Test Score (Source: JICA)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of spots</th>
<th>Number of samples by water source***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>A</td>
<td>0</td>
<td>66</td>
</tr>
<tr>
<td>B</td>
<td>1-4</td>
<td>41</td>
</tr>
<tr>
<td>C</td>
<td>5-10</td>
<td>57</td>
</tr>
<tr>
<td>D</td>
<td>&gt;10</td>
<td>155</td>
</tr>
<tr>
<td>Total</td>
<td>319</td>
<td>415</td>
</tr>
</tbody>
</table>

***The categories are based on an index of water quality for bathing places.

**Water source 1 = Tyed water, 2 = Pump well, 3 = Well, 4 = Spring water, 5 = Freshwater, 6 = River/Creek, 7 = Pond/Hyperv, 8 = Basin, 9 = Bottled water

Next, the labor supply in the non-agricultural sector is observed to increase more in places distant from provincial capitals when roads are improved. However, it is also observed that the labor supply in the sector increases more in rural areas that are closer to a district center. In other words, the district center is always important to the local economy, but the marginal benefits from road quality are larger in remote areas as the labor force participation in the non-agricultural sector is originally lower in villages distant from provincial capitals.
Empirical Study 3

The role of household and community mechanisms in introducing value-added manufacturing
domestic activities in rural areas. Our results demonstrate that households that are engaged in manufacturing self-employment activities are likely to be located in remote locations far away from district and sub-district centers, to be landless households, and to have more women in the household.

In particular, in provinces with high road density, there are many households engaging in manufacturing activities in rural areas.

Infrastructure supporting rural households to participate in economic growth:
Structures of non-agricultural activities across space: Evidence from Indonesia

The last study examines how improvement in the spatial connectivity between rural villages and urban centers promotes manufacturing activities. Our objectives are to examine how spatial connectivity to urban areas affects the choices of rural Indonesian farm households with regard to non-agricultural activities, and especially self-employed manufacturing (food processing, woodwork, handicrafting, etc.), and to explore how these choices might be influenced by individual and household characteristics, particularly agricultural conditions (e.g., land ownership, availability of irrigation).

In spatial economics there has been theoretical development to investigate what kinds of manufacturing activities can be located in remote areas. When transportation costs increase with an increase in the distance from an urban area, relatively homogeneous products can be produced in locations just outside the urban center’s suburbs, while highly differentiated products can be produced even in areas farther away from the city, as the transportation costs can be recovered. Products with an intermediate level of differentiation that are bound for local markets can be produced in locations somewhere between the suburbs and remote locations. Empirical studies based on these theories are limited, and so it has not yet been clearly revealed how road infrastructure correlates with promotion of manufacturing activities in rural areas.

Our results demonstrate that households that are engaged in manufacturing self-employment activities are likely to be located in remote locations far away from district and sub-district centers, to be landless households, and to have more women in the household.

In particular, in provinces with high road density, there are many households engaging in manufacturing activities, even in remote villages located far from urban areas (Graph 2).

This indicates the potential for well-established transportation networks to enable small businesses in rural areas to target larger urban markets. Improving road facilities in entire provinces is therefore a key to increasing the income level of landless farmers and women in rural areas. However, further analysis is necessary on the factors underlying these activities in rural areas.

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This indicates the potential for well-established transportation networks to enable small businesses in rural areas to target larger urban markets. Improving road facilities in entire provinces is therefore a key to increasing the income level of landless farmers and women in rural areas. However, further analysis is necessary on the factors underlying these activities, such as the role of the traders who connect urban and rural areas, as well as the role of household and community mechanisms in introducing value-added manufacturing products.

Table 3-3-1: Expansion of Development Partnerships

Table 3-3-2: Collaboration with multiple actors to enhance development

Figure 3: Weight for Height Ratio z Score: Village Fixed Effects (Source: JICA)

<table>
<thead>
<tr>
<th>Target Children under 60 months</th>
<th>Weight for Height z Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No IV</td>
<td>IV</td>
</tr>
<tr>
<td>Drinking water test score</td>
<td>-0.001 (0.27)</td>
</tr>
<tr>
<td>Sex (girl)</td>
<td>0.0917 (0.043)</td>
</tr>
<tr>
<td>Age (months)</td>
<td>-0.0009 (0.049)</td>
</tr>
<tr>
<td>Birth month fixed effect</td>
<td>-0.0001 (0.045)</td>
</tr>
<tr>
<td>Birth year fixed effect</td>
<td>-0.0066 (0.170)</td>
</tr>
<tr>
<td>Village fixed effect</td>
<td>-0.0066 (0.170)</td>
</tr>
<tr>
<td>Durbin-Wu-Hausman test (Hi-sig)</td>
<td>-0.1155 (0.00084)</td>
</tr>
<tr>
<td>P-value</td>
<td>0.3168 (0.00075)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.0982 (0.00075)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>600</td>
</tr>
</tbody>
</table>

**Note:** *p* < 0.01 indicates statistical significance at the level of 1%. The variables in parentheses are absolute values.

Observations with 40 or more colony forming units (CFUs) from the sample are excluded.

The various water infrastructure variables were used as instrumental variables (IV).

Graph 2: Distance to a district center and distribution of households engaged in self-employment manufacturing activities by road density (Source: JICA)

During the 2010 FIFA World Cup, the private-public initiative Public Viewing in Africa, a collaboration between Sony Corporation, UNDP and JICA aiming to stop the spread of HIV/AIDS, was launched in Ghana and Cameroon. World Cup games were broadcast on giant screens, and events were held before the games for the people who had come to watch them. These events raised awareness about AIDS prevention, including HIV antibody tests, quiz questions and plays about AIDS. (Photo: Ghana)
In the Monterrey Consensus, approved at the UN Conference on Financing for Development held in March 2002, it was agreed that ODA would be increased by 16 billion dollars a year by 2006 and that developed countries would continue to make an effort to contribute an ODA amount of 0.7% as a percentage of GNI. However, as of 2011, the average ODA amount of all developed countries remained at 0.33% as a percentage of GNI, and there is not much chance of this improving.

In order to accelerate efforts to achieve the MDGs, implementing the Monterrey Consensus and making further efforts to increase ODA are required. It is becoming increasingly difficult to secure budgets for aid, given the deteriorating financial situation in many developed countries in recent years. How do donors overcome fiscal pressure is crucial in the approach to 2015.

In the meantime, the international community has also begun exploring innovative financing mechanisms, such as International Solidarity Levies (placed on air tickets or financial transactions) and the International Finance Facility for Immunization (IFFIm), in order to supplement traditional aid financing.

## Diversified development finance and partnerships

Financial resources for development have diversified in recent years. The Leading Group on Innovative Financing for Development has generated more than 1.7 billion dollars mainly for global health through International Solidarity Levies and the International Finance Facility for Immunization (IFFIm). In addition to the increasing financial flow from emerging countries, including trade and investment, financial assistance from private foundations, NGOs and private companies are also on the rise. Remittances to developing countries will reach 325 billion dollars in 2011, and the need to reduce transaction costs and to promote diaspora bonds have also been receiving attention. Moreover, quite a number of climate-related funds have been established, and effective collaboration and alignment with existing development cooperation is thus called for.

With these new trends in mind, at the G20 held in France in 2011, Microsoft co-founder Bill Gates released a report on innovative financing for development. His report highlighted a case of triangular cooperation involving Japan and Brazil for agricultural development financing for development. His report suggested the need for innovation through effective collaborations involving traditional aid and new trends. Also, the fourth High Level Forum on Aid Effectiveness in Busan in 2011 agreed on establishing a Global Partnership that takes into account partnerships with the private sector and emerging countries. The international development community is thus showing greater interest in collaborative efforts and partnerships beyond traditional aid.

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**Column 8**

**Cooperation Targeting the Base of the Pyramid (BOP Business, Microfinance)**

There are said to be about 4 billion poor people worldwide who live on less than 3,000 dollars a year (people referred to as the Base of the Pyramid, or BOP). Private enterprises are increasing their activities to launch businesses that target such people for business opportunities. BOP business considers poor people to be potential consumers, and provides them with goods and services and creates jobs for them by involving them in the manufacturing and sales value chain. BOP business is a sector with good prospects for attracting attention because of the size of the target population and the impact that it may exert. Advances in IT technology could further increase such potential in various fields of corporate activities.

As about 2.5 billion poor people in developing countries do not have any access to formal financial services, microfinance—a form of BOP business—is receiving attention. Because people living in poverty do not have enough collateral or a creditworthy guarantor to get a loan, they are considered to lack access to formal financial services, including deposits, loans and money transfers. Microfinance develops and provides financial services for the poor through private financial institutions, by ensuring financial access for them. Microfinance is expected to be used as an effective tool to help support the poor in achieving economic independence.

BOP business, including microfinance, is expected to contribute to progress with the MDGs in the future; however, the risks are greater, as they target developing countries and the poor. In order to provide the services needed by poor people at fair prices in a sustainable manner, joint efforts by the public and private sectors are essential.

JICA will strengthen its partnerships with private enterprises that conduct such businesses and also with NGOs, while promoting the consolidation of systems, the development of human resources, and financial cooperation.

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**Column 9**

**Diversified development finance and partnerships**

Financial resources for development have diversified in recent years. The Leading Group on Innovative Financing for Development has generated more than 1.7 billion dollars mainly for global health through International Solidarity Levies and the International Finance Facility for Immunization (IFFIm). In addition to the increasing financial flow from emerging countries, including trade and investment, financial assistance from private foundations, NGOs and private companies are also on the rise. Remittances to developing countries will reach 325 billion dollars in 2011, and the need to reduce transaction costs and to promote diaspora bonds have also been receiving attention. Moreover, quite a number of climate-related funds have been established, and effective collaboration and alignment with existing development cooperation is thus called for.

With these new trends in mind, at the G20 held in France in 2011, Microsoft co-founder Bill Gates released a report on innovative financing for development. His report highlighted a case of triangular cooperation involving Japan and Brazil for agricultural development in Mozambique as a successful example of a new partnership, and suggested the need for innovation through effective collaborations involving traditional aid and new trends. Also, the fourth High Level Forum on Aid Effectiveness in Busan in 2011 agreed on establishing a Global Partnership that takes into account partnerships with the private sector and emerging countries. The international development community is thus showing greater interest in collaborative efforts and partnerships beyond traditional aid.

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**11 Diaspora bonds are issued by a home government for investments by its diaspora in infrastructure projects and the like. According to the G20 Bill Gates report, diaspora bonds have long been issued in Israel and India. Nigeria, Kenya and the Philippines are now considering issuing their own. The African diaspora alone has amassed an estimated 50 billion dollars in savings that could be invested in bonds.**