Inclusive and Dynamic Development

Striving for dynamic development that benefits all

Contributing to growth in Japan and the world

As is clearly seen in the recently volatile circumstances of the Middle East, feelings of inequity that arise when the fruits of economic growth are poorly distributed are a factor behind social unrest. What becomes apparent here is the importance of "inclusive development," an approach that pays attention to widening disparities that can occur with economic growth but which then ensures that all people are beneficiaries. JICA intends to contribute to growth in not only developing countries but also Japan by pursuing support that is both inclusive and dynamic.

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Inclusive development

The Middle East has seen growing instability since an uprising in Tunisia in December 2010, and this situation has provided significant pointers on how development should be pursued. Specifically, developments here shed light on how employment problems combined with freedom of speech issues brought social unrest to countries having abundant resources, relatively strong economic indicators, and fairly high education levels.

Feelings of inequity are caused when growth accelerates but the fruits of such growth are improperly distributed—such as when people cannot find work or gain sufficient income despite being highly educated, and when their dissatisfaction at being placed in such circumstances never dissipates—have greatly changed the complexion of the international community.

Here, JICA presents a vision for "inclusive and dynamic development"; in other words, vibrant development that delivers benefit to all people. Through inclusive development, JICA seeks to have more people enjoy benefits from broad and equal participation in the "growth process" as a step toward achieving poverty reduction from sustainable economic growth. The vision also stresses the importance of considering the circumstances in which people are placed from various angles concerning "inclusiveness" so as to "prevent disparity." Inclusive development is based on the philosophy of "human security" that is a basic policy in Japan's ODA Charter, and it is a concept whose importance has received renewed recognition in the wake of recent developments in the Middle East.

1. Helping resolve issues faced by the international community

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Accelerating growth and benefits

Growth in developing countries and Japan —"Mutual prosperity" sought by the New Growth Strategy

Even among developing countries needs are particularly acute in those nations faced with severe poverty. Moreover, even in countries that enjoy a certain level of economic growth, deep-rooted problems in daily life will not be resolved if development fails to pay attention to disparities between the rich and poor and the fruits of growth are not shared with ordinary citizens. This was made clear in the string of political upheavals and spreading democracy demonstrations that began in the Middle East in early 2011. There are still many countries in the world that fit this description, and it is here that Japan's ODA has an important role to play.

The circumstances surrounding ODA, however, have also been undergoing significant change in recent years, particularly with regard to Japan's domestic situation. With its economy stagnant for more than a decade, Japan relinquished its position as the world's second largest economy to China in 2010. And as its economy remains shackled by a shrinking labor force caused by an aging society and low birth rate, there is now a growing consensus that Japan should contribute to its own economic growth through ODA. In terms of resources, energy, food, and other areas, Japan's economy is inescapably linked to the global economy. After the March, 2011 earthquake disaster, Japan believes that by fulfilling its commitments to the international community, helping resolve such global issues as poverty and infectious diseases, and contributing to world peace and prosperity, it is also serving its own national interests.

At the same time, countries around the world—including developing nations—extended their support to Japan in the days following the Great East Japan Earthquake. Such support was undoubtedly a reflection of the trust and gratitude such countries have felt for Japan's ODA program in previous years*1. Moreover, as was made very clear by the disaster, there are areas where the problems faced by developing countries and Japan are similar, including the environment, resources, and energy.

While it is true that JICA's mission is to assist developing countries, events following the Japanese earthquake underlined that JICA's experience in implementing projects overseas can be applied within Japan itself. This was demonstrated by activities to support disaster victims by former JICA volunteers (JOCV) and international cooperation-oriented NGOs and NPOs in the days immediately following the disaster. Thus,

Former JICA trainees holding candles and praying for the souls of victims of the Great East Japan Earthquake (Gaza Strip, Palestine)

A former JOCV to Mongolia heading a team lending out supplies at a disaster volunteer center in Sendai (left). She had been independently continuing her activities in Mongolia after the end of her JOCV service, but hurried to Sendai after hearing of the disaster.

1 A counterpart and Japanese expert in the new air traffic control tower simulator at Ho Chi Minh City Airport (Viet Nam)
2 At a school helping to promote women's education (Yemen)
3 Mindanao Container Terminal developed with ODA Loans. Constructed inside an industrial park in Northern Mindanao, the terminal has contributed to the improvement of the business environment for local Japanese companies (Philippines)
4 NERICA rice pilot farms in the Mwea irrigation area, which has long been supported by JICA (Kenya)
5 Counterparts and a Japanese professor engaged in serologic testing to identify the effectiveness of type B hepatitis vaccines (Fiji)

*1 Following the Great East Japan Earthquake, JICA's overseas and domestic offices received more than 3,000 messages of sympathy from more than 100 countries. Some of the messages expressing warm support and encouraging speedy recovery can be viewed on the JICA website. http://www.jica.go.jp/information/disaster_msg/index.html

it is clear that, in addition to supporting developing countries with Japanese technologies and know-how, JICA will also need to address various issues in Japan by utilizing the knowledge and networks it has gained through overseas activities and linking international and domestic aspects.

In June 2010, the Japanese government's "New Growth Strategy" was approved by the Cabinet. This strategy aims to encourage Japanese companies to do business overseas, including in developing countries and to support sustainable growth there. Japanese companies possess superior technologies in such fields as infrastructure development, energy conservation, and the environment. Thus, more than ever, opportunities are growing for Japanese companies to utilize these technologies to help solve problems in developing countries.

Realizing economic growth together with developing countries and seeking "mutual prosperity" form the foundation of the New Growth Strategy. JICA intends to contribute to the New Growth Strategy through project implementation [➡ See the Case Studies on pages10 and 11].

Case Study **Project for the Capacity Development for Transition to the New CNS/ATM Systems in Cambodia, Lao PDR and Vietnam**

Bringing Safer and More Efficient Aircraft Operation to the East Mekong Region

JICA launched this Technical Cooperation project in January 2011 with focus on Cambodia, Laos, and Viet Nam. The project seeks to develop capacities needed to introduce new technologies for aircraft operation and air traffic control utilizing satellite technology (i.e., new Communications, Navigation and Surveillance/Air Traffic Management [CNS/ATM] systems).

A JICA expert (right edge in the picture) is guiding counterparts in air-traffic control skills in the control tower of Vientiane Airport, Laos. This control tower was set up with Grant Aid from Japan.

Shift to a New Regional System

Global introduction of new CNS/ATM systems is being promoted by the International Civil Aviation Organization (ICAO). These systems significantly raise air transport safety and efficiency by making it possible to improve flight precision and shorten routes. They are important technologies in the effort to meet continually growing air travel demand.

This project provides technical support through on-the-job training and training in Japan with the following objectives: 1) capacity development concerning establishment of Performance-Based Navigation (PBN) flight, 2) development of training programs concerning the new systems for air-traffic controllers and air-traffic control technicians, and 3) introduction of Safety Management Systems (SMS).

PBN, which forms the core of the new systems, is a new navigation technology utilizing location information from satellites. It makes it possible to set safer and more efficient flight routes. Introduction of SMS is required by ICAO. Under SMS, aviation operators manage risks concerning aviation safety and systematically implement measures to prevent accidents and hazardous events.

The cooperation period is five years, and JICA experts based in Viet Nam travel to Cambodia and Laos to fulfill their duties. JICA also has been implementing similar projects in Philippines and Indonesia. Through this cooperation, JICA contributes to the harmonization of Southeast Asia in the field of air-traffic control by introducing new aviation systems and technical support to manage the systems.

"Hard infrastructure" and "soft infrastructure" —Promoting package-type cooperation

In general, "infrastructure" refers to public structures such as roads, schools, hospitals, power and water treatment plants. If people's lives are to be improved, hygienic environments must be established by developing waterworks and sewerage systems, and education and appropriate health and medical services must be made available. Before these steps can be taken, however, it is first necessary to build facilities and to secure means of transport to them, which include roads and bridges, buses, and railroads. It is also necessary to supply the electric power that these facilities require.

However, people cannot live by so-called "hard infrastructure" alone which in itself must be appropriately maintained and managed through related laws and regulations and the development of human resources.

Various rights must be secured for people and communities. Civil codes, commercial laws and other statutes must be enacted. Proper investment environments must be established. Such institutions and human resources have become known as "soft infrastructure."

The Great East Japan Earthquake included a massive 9.0 magnitude tremor and an ensuing tsunami of

A subway in the Indian capital of Delhi whose construction was supported with ODA Loans. JICA is also implementing Technical Cooperation and providing know-how for safe and smooth operation [Photo by Shinichi Kuno]

unanticipated height that struck coastal areas. Material damage was overwhelming, but the catastrophe also underlined the importance of this 'soft infrastructure' whereby previous disaster management education helped save countless lives.

Effective cooperation can be achieved by combining hard and soft infrastructure in a well balanced manner. In October 2008, a reorganized and 'expanded' JICA for the first time was able to use a combination of ODA Loans, Grant Aid and Technical Cooperation to implement projects with greater flexibility and effectiveness. This combination gives JICA the ability to implement package-type cooperation that extends from formulation of development plans to establishment of hard and soft infrastructure by combining, for example, infrastructure development projects using ODA Loans and Technical Cooperation and then presenting them as integrated packages to partner countries [➡ See the Case Studies on pages 60, 61, 83, and 85].

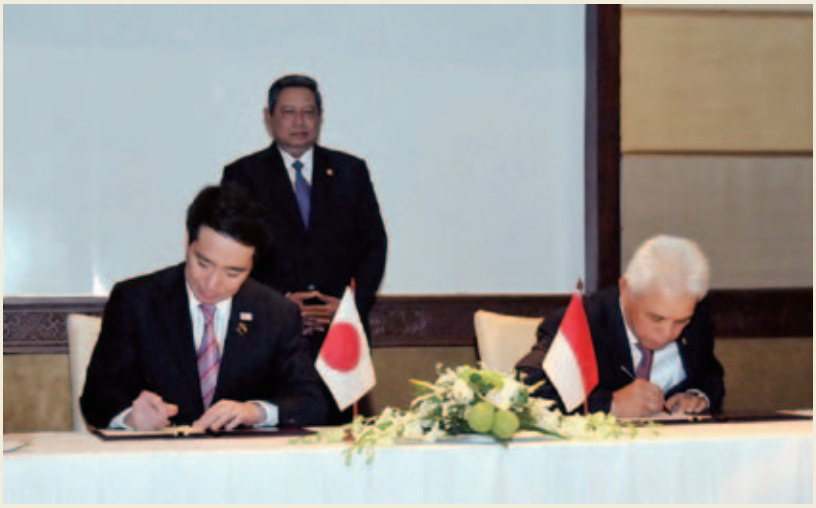
Public Private Partnership —Building a "win-win-win" relationship

As global competition intensifies and barriers to trade and investment fall, private enterprises are actively expanding their trade and investment to developing countries. At the same time, Japan's domestic labor population has been shrinking in recent years due to the country's declining birthrate, and domestic consumption is expected to drop as a result. Thus, there is a growing need for Japan to break away from its traditional internal consumption-driven economy. Against this backdrop, Japan's "New Growth Strategy" advocates the "package of infrastructure-related system export"; in other words, a strategy to expand Japan's overseas involvement in the infrastructure field that is based on public-private sector collaboration. The Japan Business Federation (Keidanren) and other economic organizations have issued recommendations urging promotion of joint public-private initiatives. Here, an approach known as Public Private Partnership (PPP) is receiving attention as a means of promoting economic growth in developing countries. PPP pursues higher efficiency and better quality by dividing the responsibilities of the public and private sectors while applying private-sector technologies, know-how, and

Case Study **Master Plan for Establishing Metropolitan Priority Area (MPA) for Investment and Industry in Jabodetabek Area**

Promoting Overseas Deployment of Integrated Infrastructure Systems

The governments of Japan and Indonesia signed the Memorandum of Cooperation for Establishing Metropolitan Priority Areas (MPA) on December 10, 2010 in Indonesia. This MPA initiative aims to develop the investment environment for both soft and hard infrastructure in the Jakarta metropolitan area. JICA is contributing to the initiative by conducting a MPA Master Plan, as the guiding principle of the MPA, and by supporting formulation and acceleration of the development projects that are highly prioritized in the Master Plan.



Signing of the Memorandum of Cooperation by the then Foreign Minister Maehara and Coordinating Minister for the Economy Hatta.

A High-Level Bilateral Agreement

The MPA Master Plan will present a long-term vision for infrastructure development in order to improve the investment environment in the Jakarta metropolitan area, mainly for nine sectors such as sea ports, roads, and airports. The key principles of the vision are "safety and security" and "environment-friendly technologies." Japanese companies are expected to contribute to the infrastructure investment with their technologies and expertise in these areas.

MPA has been promoted as a high-level ministerial approach since its preparatory stage. The initiative mainly focuses on formulating and realizing development projects. The MPA Master Plan will identify urgent and prioritized projects with possible financing schemes and possibility of private sector participation in development of the infrastructure. The MPA Steering Committee, which consists of relevant ministers of both governments, has already been established. It supervises and supports the implementation of the recommended projects and measures in the MPA Master Plan.

The JICA Master Plan Study Team mobilizes not only development consultants but also the expertise of trading companies, infrastructure service companies and other private companies. This allows the Study Team to make strong recommendations with realistic perspectives of infrastructure investment and operation in addition to urban planning.

The Egypt-Japan University for Science and Technology is supporting the future of science-oriented higher education in Egypt. It opened in March 2009 with support from universities in Japan.

capital. Typically, it should involve the development of basic infrastructure with public funds (ODA, etc.) while the private sector investments in areas expected to be profitable as well as operations, maintenance, and management.

Another approach is "Base of the Pyramid (BOP) business" in which private enterprises use business principles to resolve problems that aid organizations have difficulty in tackling on their own.

Such approaches that seek to form meaningful ODA-private-sector partnerships to expand development and growth are desirable for both developing countries and Japan. Given this, JICA is reinforcing its initiatives to promote PPP infrastructure projects and BOP business. In fiscal 2010, JICA began implementing "preparatory surveys for PPP infrastructure projects" based on proposals submitted by the private sector. JICA also launched "preparatory surveys for BOP business promotion" that support surveys to gather information and formulate business plans at the business plan development stage. Moreover, a plan to restart Private Sector Investment Finance that provides financial support when private enterprises do business in developing countries was announced at a "Ministerial Meeting on the Overseas Deployment of Integrated Infrastructure Systems" held in December 2010.

In order to continue its support for economic growth in developing countries, JICA will promote more effective and efficient aid by strengthening Public Private Partnerships that generate "win-win-win" situations for developing countries, the private sector, and ODA, while also utilizing the capital and vitality of the private sector **[➡ See the Case Study on page 11]**.

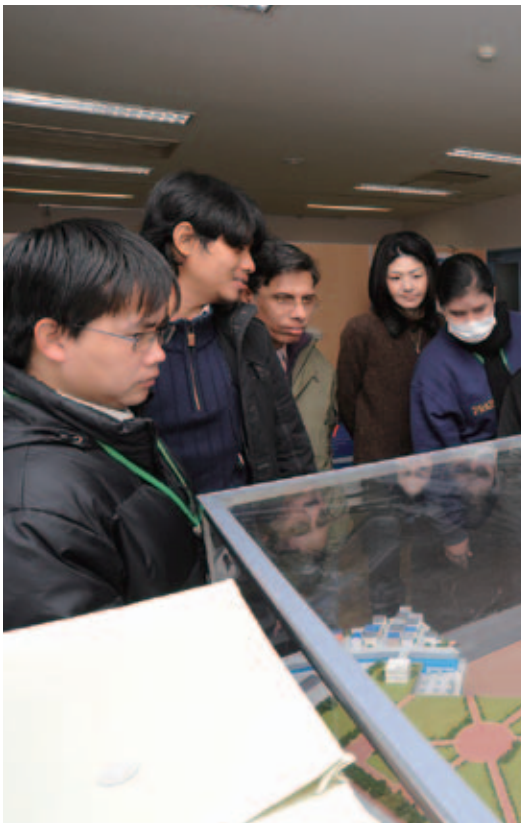
Science and technology —Human resources development and networking of institutions of higher education

Science and technology play major roles in tackling such issues as environmental degradation, disaster management, and infectious diseases. Advancements in S&T are vital elements in efforts to realize economic growth, and the development of human resource in this field is a particularly important means of promoting development.

In this connection, key Diet members of the government's Council for Science and Technology Policy issued a May 2008 statement on "the need to implement joint research and develop the capacities of universities and research institutes based on the requirements and requests of developing countries."

With an eye to realizing sustainable development in developing countries, JICA has been promoting S&T-related human resources development and networking of higher education institutions as part of Technical Cooperation that takes advantage of Japan's long-developed expertise in S&T. It launched a "science and technology cooperation on global issues"*2 scheme in fiscal 2008. It is also promoting activities centered on such projects as the Egypt-Japan University of Science and Technology (E-JUST) and the ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net) to promote capacity development of universities and research institutes **[➡ See the Case Study on page 100]**.

*2 Specifically, this refers to projects implemented under Science and Technology Research Partnership for Sustainable Development (SATREPS; Technical Cooperation project) and Dispatch of Science and Technology Researchers (individual expert dispatch).



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Response to global problems

Countermeasures against climate change —From the standpoints of mitigation and adaptation

Realizing sustainable global growth requires an appropriate response to issues such as climate change.

2010 was particularly hazardous. Many countries including Colombia, Pakistan, Viet Nam, Benin, and Venezuela suffered from severe floods and JICA responded by providing emergency relief and supplies. Pakistan, in particular, experienced continuous torrential rains that began in late July and subsequent flooding affected approximately 20 million people. In Colombia, unremitting rains that began in April caused flooding as late as December and affected more than 1.6 million people. The floods damaged not only bridges, roads and other infrastructure but caused widespread social disruption by inundating farmland, destroying crops and livestock and causing outbreaks of deadly infectious diseases.

Trainees viewing a model and listening to an explanation of flood countermeasures in major urban areas (Capacity Development for Adaptation to Climate Change)

To address such natural disasters, JICA implements specific disaster related training courses in Japan in addition to related Technical Cooperation projects. In February 2011, Asian officials involved in formulating natural disaster countermeasures participated in a roughly one-month JICA training course, "Capacity Development for Adaptation to Climate Change," the third of a series.

It is widely believed in scientific circles that climate change is at least partially responsible for triggering increasingly heavy rains, destructive

Case Study **Reducing Emissions from Deforestation and Forest Degradation (REDD-plus)**

Promoting REDD-plus as an Approach to Mitigating Climate Change

REDD-plus is a concept to reduce greenhouse gases emissions or to maintain or enhance forest carbon stocks by curbing deforestation/forest degradation or through forest conservation in developing countries. JICA is conducting REDD-plus projects around the world.

Forest clearance in Laos

From Policy to Action

JICA provides cooperation to promote REDD-plus from three aspects: 1) development of policies, institutions, and capacities; 2) improvement of technologies for measuring forest area and forest carbon emissions; and 3) promotion of demonstration activities to reduce deforestation and forest degradation. Through each of these approaches, JICA encourages stronger partnership among stakeholders in developing countries.

In Laos, which is aiming to restore forest coverage ratios that have been declining rapidly in recent years, JICA has dispatched experts in the forest policy field who are providing guidance and training to forest administrators in order to develop their capabilities in policy formulation and institutional planning in the forest sector, including REDD-plus.

In Indonesia, which is faced with the problem of forest fires caused by drying peatlands and slash-and-burn cultivation, JICA is involved in a science and technology research partnership for sustainable development (SATREPS) in collaboration with related institutions in Indonesia and Hokkaido University. This cooperation involves detecting forest fires using satellite images, developing a prediction model, and establishing a system for evaluating forest carbon stock for a REDD-plus framework.

Moreover, in Brazil, JICA is providing cooperation to reinforce controls on illegal logging, which occurs frequently in the vast Amazon rain forests. JICA is working to build a monitoring system and strengthen the capabilities of counterpart personnel so that the Brazilian Federal Police and the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) can monitor illegal logging through satellite images.

JICA will provide comprehensive cooperation in this field to Cambodia and Viet Nam as well.

The Program for Community-based Flood Disaster Management to Adapt to Climate Change in the Nyando River Basin built disaster-management structures in 24 river-basin villages and improved residents' awareness of disaster management [Photo by Shinichi Kuno]

Case Study **The Project of Capacity Development for Climate Change Strategies in Indonesia**

Comprehensive Support for Climate Change Countermeasures in Indonesia

JICA is providing comprehensive support to initiatives by the Indonesian government to tackle climate change. This support ranges from policy-making and institutional reform to capacity development at implementation levels. This kind of support framework that reaches from the "upstream" side to the "downstream" side of the policy process is expected to become a model for future cooperation.

A workshop on the National Action Plan for GHG Reduction that was jointly organized by JICA, the National Development Planning Agency of Indonesia (BAPPENAS), and South Sumatra Development Agency.

Supporting the "Formulation" and "Implementation" of Climate Change Countermeasures

Thus far, JICA has provided Low Carbon and Resilient Development Program to promote climate change countermeasures in Indonesia. JICA takes this approach to encourage government initiatives from the "upstream" side by clearly delineating policy and institutional reforms vis-à-vis such countermeasures in a "policy matrix," and then providing loans in a stepwise fashion based on evaluation of progress in realizing the policy matrix.

JICA has also started the Project of Capacity Development for Climate Change Strategies to reinforce administrative capabilities within the government that will be needed to move policy from the "upstream" side to the "downstream" side—i.e., actual implementation.

The project contains three sub-projects. Sub-project 1 aims to formulate Nationally Appropriate Mitigation Actions (NAMA) as well as promote measurement, reporting, and verification (MRV). It also seeks to mainstream adaptation measures in development planning by strengthening capacities among policy-makers and practitioners so that they can take initiatives to implement countermeasures by themselves Sub-project 2 seeks to project and analyze various impacts of climate change by evaluating vulnerability and adaptive capacity based on wider socio-economic perspectives.

Sub-project 3, which seeks to reinforce capacities to develop greenhouse gas (GHG) inventories*, is aiming to establish a management system for upgrading GHG inventories regularly, with a view to enhancing the quality of the inventories.

* "GHG inventory" indicates amounts of CO_2 and other greenhouse gases that are causes of global warming in terms of both emissions and absorption for each source of emission/absorption in a particular country.

storms and other adverse weather patterns. Countermeasures include the greater use of so-called "clean energy" and "mitigation measures" that control emissions of greenhouse gases. An example is REDD-plus (Reducing Emissions from Deforestation and Forest Degradation in developing countries) which seeks to reduce greenhouse gas emissions by controlling deforestation and forest degradation **[➡ See the Case Study on page 13]**. However, because it takes time for such measures to take effect, other "adaptation measures" are also required in the short term.

JICA projects in developing countries lacking strong social and administrative infrastructures focus on adaptation measures covering a broad range of fields including not only disaster management but also water resources, agriculture, mangrove conservation, biodiversity conservation, infrastructure development, and health and hygiene.

The 16th Conference of the Parties of the United Nations Framework Convention on Climate Change (COP 16) met in Cancun, Mexico, in November and December 2010 to discuss an international framework for climate change countermeasures and other matters. Discussions included achieving an agreement on a new international framework for 2013 to replace the earlier Kyoto Protocol which established numerical targets for the reduction of greenhouse gases. During the conference, JICA organized side events on such themes as exchange of GHG emission reductions between developed and developing countries and reduction of GHG emissions by controlling deforestation. It also presented projects that simultaneously address development issues in developing countries and climate change countermeasures, and held discussions with various countries.

Moreover, in a move timed to correspond with COP 16, the JICA Research Institute (JICA-RI) published a book titled *Climate Change Adaptation and International Development* edited by Ryo Fujikura, JICA-RI Visiting Research Fellow, and Masato Kawanishi, JICA Senior Advisor and issued by Earthscan of the United Kingdom, which compiled the results of research on

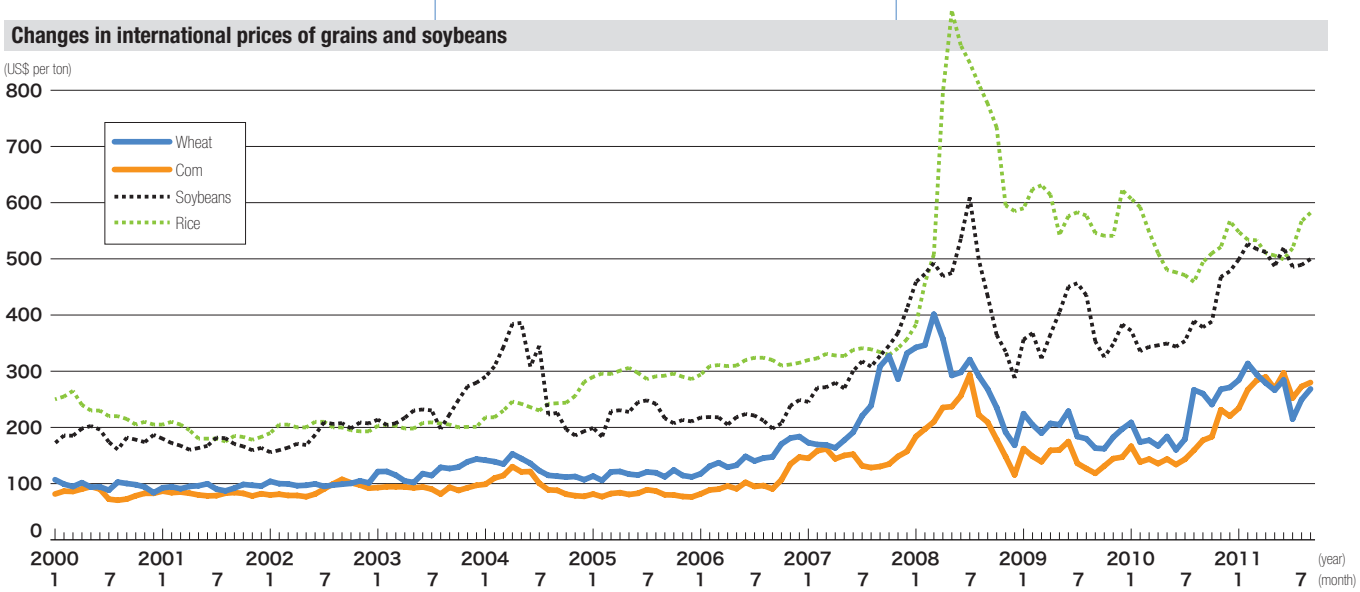
adaptation measures. The book presents weather prediction data for various countries that was prepared through the "Capacity Development for Adaptation to Climate Change" training course over the past two years. In this way, JICA is contributing to international climate change countermeasures through not only specific projects but also conference presentations and research.

Food security —Toward achieving Goal 1 of the MDGs

The proportion of undernourished people in developing countries fell from 20% at the beginning of the 1990s to 16% in the first years of the new millennium. International grain prices began rising around 2006, peaked during the spring and summer of 2008, and then again began rising in 2010 and 2011 following a temporary decline. Such gyrations and uncertainty have a profound impact on impoverished peoples. These developments are expected to lead to an increase of more than 40 million in the worldwide number of people living in impoverished conditions during 2010 and 2011 (World Bank estimates), and are thought to be a factor in the string of political upheavals in Tunisia, Egypt, and other countries of the Middle East in early 2011.

A counterpart of the NERICA Promotion Project in Uganda and a Japanese expert. The project is promoting the dissemination of NERICA rice in Uganda [Photo by Shinoda Yuji]

Changes in international prices of grains and soybeans



[Source] Website of Ministry of Agriculture, Forestry and Fisheries (Japan)

The situation could impede efforts to achieve the first target of the Millennium Development Goals (MDGs) to halve the number of the world's undernourished population by 2015. Consequently, JICA is supporting the stable supply of food to threatened populations. Specifically, JICA supports initiatives to achieve sustainable agricultural production and improve marketing, storage and distribution systems in developing countries to reinforce overall food security [➡ See the Case Study on page 127].

In particular JICA is involved in priority actions that include doubling African rice production to 28 million tons by 2018 in collaboration with the Coalition for African Rice Development (CARD) [➡ See the Case Studies on pages 61 and 114].

The Olkaria geothermal plant of Kenya, which is situated on the foot of a dormant volcano. In March 2010, JICA signed an agreement to provide an ODA Loan toward expanding the plant. As the first project to qualify for a Climate Change ODA Loan ("Cool Earth Loan") in Sub-Saharan Africa, the plant's expansion is expected to help reduce burden on the global environment in addition to providing power [Photo by Shinichi Kuno]

Resources and energy —Utilizing Japan's energy-saving and low-carbon technologies

Against a backdrop of global environmental problems and growing demand in developing countries and emerging economies, securing stable energy supplies is becoming an important issue for the international community.

According to the International Energy Agency (IEA)*3, worldwide primary energy consumption in 2008 was 12.3 billion tons (oil equivalent). However, it is estimated that this figure will rise to 16.7 billion tons by 2035, and more than half of that demand will come from developing countries. It is also predicted that consumption in Asia—particularly in China and India—will increase even more.

In addition, the recent unrest in the Middle East, which supplies the majority of the world's fossil fuels, is having a major impact on energy prices. Energy drives industrial and social development and underpins daily life by powering transport, communications, electric, gas and waterworks infrastructure. The damage to thermal and nuclear power plants in the coastal areas of Fukushima, Miyagi, and Ibaraki Prefectures during Japan's March 11 earthquake underlined the need in both Japan and the rest of the world to review energy policies and diversify energy sources. The IEA emphasized that how the energy problem evolves over the long term will depend on how national governments respond to two issues that are closely connected: climate change and energy security.

The international community—including developing countries, Japan and other developed nations that have consumed vast amounts of energy over the course of their own economic development—must now concentrate on "energy conservation" by utilizing limited energy resources over the long term with greater efficiency and stability. Moreover, as Japan promotes energy conservation, it must also more fully exploit renewable energies.

Having experienced two oil crises in the 1970s, Japan has promoted energy-saving measures in its industrial and other sectors, and developed various technologies and institutions for energy conservation. Japan has also become expert in the field of low-carbon technologies. For its part, JICA will help share Japan's know-how with the world, work toward reducing worldwide energy consumption, and, by extension, lowering greenhouse gas emissions.

Peacebuilding and conflict prevention

Throughout the world, the number of armed conflicts is growing and vast numbers of civilians have become victims. Military and political initiatives, preventive diplomacy, disarmament and mediation are often ineffective in resolving conflicts or re-establishing peace. Therefore, it is necessary to tackle the underlying causes such as disparities between the rich and poor or unequal opportunities, and to use development assistance to address these issues.

The establishment of peace is the key precondition for resolving global poverty problems and ensuring economic growth in a secure environment. ODA is an important approach that embodies Japan's diplomatic philosophy; namely that "contributing to the peace and prosperity of the international community brings peace and prosperity home." The positive impact of ODA was recognized when many countries, including Afghanistan, Rwanda,

*3 World Energy Outlook 2010 (IEA)

Sudan, and other nations which have experienced conflict, extended support to Japan in the wake of the 2011 earthquake.

In February 2011, voters in the southern region of Sudan—a country that had been embroiled in civil war for more than 20 years—voted to become the independent state of South Sudan in July, 2011. But ever since a peace agreement between northern and southern Sudan was reached at a donor nations conference in Oslo in April 2005, JICA has been implementing reconstruction support projects in both regions [➡ See the Case Study on the right].

During the war, South Sudan had lost most of its schools, hospitals, and other social services as well as the basic infrastructure needed for daily living. Consequently, JICA has provided support to victims of the conflict through vocational training and livelihood improvement activities; support for basic human needs, such as health care, science and mathematics education, and improved water supply; and support for infrastructure reconstruction, such as road improvement and river port construction. JICA's efforts focused on the new capital city of Juba and it will continue to support nation-building. This will include regional assistance designed to foster confidence between central and local levels of government and to correct regional disparities, with the aims of developing a foundation for stable national functions and preventing a recurrence of conflict [➡ See the Case Study on page 85].

Case Study

A Health and Medical Care Program in Sudan (Frontline Mother and Child Health Empowerment Project)

Village Midwives to Support Rural Maternal and Child Health

Sudan is a country where reconstruction efforts are continuing following the end of civil war. At a time when many donors are providing assistance that focuses on war-torn southern Sudan, JICA has sought to improve health care services throughout the country. This effort includes support to reinforce management of insufficient human resources for health in the south, and support for improved maternal and child health care in the north.

Because many VMW are illiterate, the training focused on practical skills. For some participants, the training provided their first opportunity to acquire new knowledge and skills in decades.

In Sudan, more than 70% of women give birth in their own homes. This makes the role of village midwives (VMW), who are the closest assistants available to expectant and nursing mothers, very important. A system that places one VMW in each village has been established. The presence of midwives who graduate from training schools is expected to support not only childbirth but also women's reproductive health and the general health of regional residents.

Although northern Sudan was not directly impacted by the ravages of conflict, its health care system was weakened by the civil war. As a result, maternal and child health indicators (maternal mortality rate, etc.) in Sudan are at a level that could make achievement of its MDGs difficult. Since 2008, JICA has provided Technical Cooperation for the purposes of developing the capabilities of VMW, who stand at the front lines of maternal and child health, and of reinforcing networks and systems that support VMW activities.

In the state of Sinnar, which is the pilot region for the project, all VMW (a total of 556) underwent in-service training for one week and received items and equipment to support childbirth. Moreover, training was provided to health care professionals who regularly support and guide VMW activities, and a system for providing technical, material, and psychological support to VMW is being developed.

The Sudanese government is planning to spread the "VMW empowerment model" to all states of northern Sudan. It is also striving to strengthen its capacity to provide more comprehensive support to VMW through the second phase of the project, which is scheduled to start in August 2011.

* This Annual Report describes projects that took place during FY2010, and thus the country name and other information provided in this case study pertain to the time prior to the Republic of South Sudan's independence in July 2011.