

3. Addressing Global Issues

(1) Environment and Climate Change Issues

The environment emerged as a major topic of discussion in international fora in the 1970s. The importance of meeting environmental challenges has been increasingly recognized through discussions at the United Nations Conference on Environment and Development (UNCED, also called the Earth Summit) in 1992, the World Summit on Sustainable Development (WSSD) in 2002 and the United Nations Conference on Sustainable Development (Rio+20) in June 2012. Rio+20 was followed by a series of discussions on Sustainable Development Goals

(SDGs)*. Additionally, environment and climate change issues have been repeatedly taken up as one of the main themes at the G8 and the G20 Summits, where the leaders conducted candid and constructive discussions on these topics. Environmental issues are challenges that the entire international community must address in order to ensure the prosperity of humankind in the future. In order to address global issues and build a sustainable society, UNESCO, as the leading agency, promotes “Education for Sustainable Development (ESD)*.”

<Japan’s Efforts>

● Employment

Japan has accumulated an abundance of knowledge, experience and technology concerning environmental pollution control, and has been utilizing them to resolve pollution issues as well as other issues that developing countries face. In particular, Japan implements initiatives to provide support for pollution control measures and for improving the living environment in urban areas, mainly in Asian countries, which are undergoing rapid economic growth. On October 9 to 11, 2013, the Diplomatic Conference for the adoption and signing of the “Minamata Convention on Mercury” was held in Kumamoto City and Minamata City, Kumamoto Prefecture. This convention sets out comprehensive regulations on the whole life cycle of mercury, from production to disposal, in order to reduce the risks of mercury on human health and the environment. Having learned hard lessons from the experience of the Minamata Disease, and being firmly determined that similar health hazards and environmental pollution should never be repeated, Japan proactively participated in the negotiations on the convention and took the role of host country for the Diplomatic Conference. In addition, Japan pledged \$2 billion



Children and young people in a village in Lombok Island, Indonesia, conducting training of the “Takakura Composting Method” to facilitate environmental conservation. (Photo: Motoko Tatsumi / JICA)

of ODA over three years to support developing countries to address the issues of air pollution, water contamination, and waste management, and also announced the launch of the “MOYAI Initiative” to disseminate information on mercury technologies and environmental restoration from Minamata to the rest of the world.¹¹

● Climate Change

Climate change is an urgent issue that requires a cross-border approach. According to the latest Fifth Assessment Report published by the Intergovernmental Panel on Climate Change (IPCC) in October 2014, the global average air temperature increased by 0.85°C from 1880 to 2012. Against this backdrop, the international community, including both developed and developing countries, must strengthen its united efforts to address climate change.

During the 19th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP19) held in Warsaw, Poland in November

2013, all of the Parties were called on to commence the domestic process to prepare their respective Intended Nationally Determined Contributions (INDC) towards the post-2020 framework, and were requested to present the INDC well in advance of COP21 or by the first quarter of 2015 if they were ready to do so. In addition, it was decided to request the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) to identify which information should be provided by Parties when presenting their INDC, and report the result to the COP20. COP19 has contributed to the progress of related discussions, and to the

Note 11: Financial and technical assistance implemented by the Ministry of the Environment. “Moyai” refers to the “Moyai-Rope,” which is used to tie ships together, and also the “Moyai” collaboration practice in farming communities. “Moyai-naoshi” refers to an initiative to revitalize the Minamata community through dialogue and collaboration.

achievement of the goal of completing the preparations for an agreement at COP 21 on a future framework to which all countries present at the conference will become Parties.

Japan also formulated the “Proactive Diplomatic Strategy for Countering Global Warming: Actions for Cool Earth (ACE)”¹² in November 2013, intending to make a contribution to the world through technology, and is actively implementing countermeasures against global warming. Under this strategy, Japan set the target of halving global greenhouse gas emissions (GHG) by 2050 and cutting the emissions from developed countries by 80% in the same period, and will proactively engage in diplomatic activities to countering global warming by making technological contribution to the world, based on the three pillars of actions, namely “Innovation,” “Application,” and “Partnership.” As a part of this initiative, Japan has been promoting the Joint Crediting Mechanism (JCM)^{*} through which the leading low-carbon technologies of Japan^{*} will be globally used and developed. Complementing the Clean Development Mechanism^{*}, the JCM, as a system, contributes to the reduction of the GHG emissions of partner countries by providing low-carbon technologies and is used to achieve Japan’s emission reduction targets. As of the end of FY2013, Japan had signed bilateral documents related to JCM with ten countries (Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Laos, Indonesia, Costa Rica, and Palau) and held Joint Committee meetings with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, and Indonesia. By the end of FY2013, Japan had conducted a total of 244 feasibility studies and 6 demonstration projects. As part of ACE,

Japan mobilized ODA, OOF (Other Official Flows), and private flows for mitigation and adaptation measures¹² in developing countries. In the three years from 2013 to 2015, Japan pledged ¥1.3 trillion (equivalent to \$13.0 billion) in official flows and ¥1.6 trillion (equivalent to \$16.0 billion) combining public and private flows.

In addition, Japan has been engaged in various kinds of regional cooperation to achieve low-carbon growth at the global level. In May 2013, Japan held the Second East Asia Low Carbon Growth Partnership Dialogue with the representatives of the governments of participating countries and international organizations. The dialogue aimed to promote the establishment of a models for low-carbon growth in the countries and regions represented in the East Asia Summit, which together are the largest GHG emissions area in the world. Active discussions were conducted during the dialogue. These discussions at the dialogue focused on technologies that contribute to low-carbon growth, and the participating countries shared the recognition of the importance of: (i) strengthening cooperation among the governments, local governments and the private sector; (ii) dissemination of appropriate technologies for achieving low-carbon growth; and (iii) importance of full utilization of all available policy tools, including market mechanism. In addition, as for relations with African countries, the “Yokohama Declaration 2013” of TICAD refers to the strategy towards low-carbon growth and climate resilient development, while the Yokohama Action Plan 2013–2017 has set out the provision of assistance as well as the dissemination and promotion of JCM based on this Action Plan.

● Promotion of the Education for Sustainable Development (ESD)

Education for sustainable development is an important policy area for Japan. In relation to this, Japan hosted the UNESCO World Conference on Education for Sustainable Development (ESD)^{*} in Okayama City, Okayama Prefecture and Nagoya City, Aichi Prefecture in November 2014. 2014 was the last year of the UN Decade of Education for Sustainable Development (DESD), which was originally proposed by Japan. In addition, Japan has been donating funds for the Japanese Funds-In-Trust since 2005, which was the first year of the DESD, and actively promoting ESD through the implementation of projects concerning education about climate change, disaster risk reduction, and biodiversity around the world.



A scene from a ministerial meeting of the UNESCO World Conference on Education for Sustainable Development (ESD) held in Nagoya. (Photo: Ministry of Education, Culture, Sports, Science and Technology)

Note 12: Mitigation and adaptation measures refer to measures for controlling (mitigating) greenhouse gas emissions, which cause global warming, as well as measures for adjusting (adapting) natural or human systems in response to actual or expected impacts.

Sustainable Development Goals (SDGs)

SDGs are development goals, which were discussed at the Rio+20 Conference. The launch of the intergovernmental negotiation process to formulate SDGs was agreed on by the conference participants. SDGs apply to all countries, while taking into account the capabilities of each country. This set of development goals is to be incorporated into the post-2015 development agenda of the United Nations. In July 2014, the Open Working Group on SDGs submitted a report.

Low-carbon technologies

Low-carbon technologies are environmentally-friendly technologies with low emission of GHG containing carbon dioxide. Since Japan has superior technologies in this field, it has been working to reduce GHG emissions by making use of these technologies through assistance for high-efficient power plants, sustainable forest management, promotion and development of systems for energy-conservation and renewable energy, and assistance for solid waste management.

Proactive Diplomatic Strategy for Countering Global Warming (ACE)

Following instructions by Prime Minister Abe at the meeting of the Headquarters for Japan's Economic Revitalization in January 2013, Minister for Foreign Affairs Kishida announced the formulation of the "Proactive Diplomatic Strategy for Countering Global Warming - Actions for Cool Earth (ACE)" at a meeting of the Global Warming Prevention Headquarters in November 2013. This strategy consists of three pillars: 1. Development of innovative technologies that will accelerate the efforts to tackle climate change; 2. Overseas application of Japan's technologies; and 3. Financial commitment to provide a total of ¥1.6 trillion (approximately \$16.0 billion) of public and private combined flows to developing countries over three years, starting in 2013.

Joint Crediting Mechanism (JCM)

JCM is a mechanism by which Japan's contributions to emission reduction and removal of GHG in developing countries, through the provision of technologies, products, systems, services, infrastructure, etc., leading to the reduction of GHG emissions, are quantitatively evaluated, and the quantitative data are used for achieving Japan's emission reduction target.

Clean Development Mechanism

Clean Development Mechanism is a means for each country to reach its GHG emission reduction targets introduced by the Kyoto Protocol. It is also a system that allows countries to make use of the amount of GHG emission reductions in developing countries to achieve their own emission reduction targets.

Education for Sustainable Development (ESD)

ESD refers to education to nurture leaders of a sustainable society. In this context, "Sustainable development" means the development of a society that meets the needs of the present generation without compromising the ability of the future generation to meet their own needs. This requires each of us to be aware of this concept in our daily lives and economic activities, and to make changes in our respective behavior. Educational activities to achieve such purposes are called "Education for Sustainable Development."

Viet Nam

Project for Capacity Building for National Greenhouse Gas Inventory Technical Cooperation Project (September 2010 – Ongoing)

The geographical landscape of Viet Nam is characterized by a long coastline that stretches about 3,400 km and vast delta areas¹, which make the country one of the most vulnerable countries against climate change in the world.

On the other hand, due to rapid economic growth, energy consumption and greenhouse gas (GHG) emissions in Viet Nam have been increasing. With its GHG emissions increasing at a rate of 11.5% per year, the highest rate among major Asian countries, Viet Nam has been under pressure to implement effective emission reduction measures. Under such circumstances, the Government of Viet Nam announced its initiatives in the reduction of GHG emissions, with the aim to pursue both economic development and environmental conservation, and to develop a low-carbon society².

In order to formulate a climate change policy, it is necessary to create a "National Greenhouse Gas (GHG) Inventory"³ that provides basic data of the amount of GHG emissions produced during a certain period of time and at a specific location. However, the problem was that no consistent data that could be used for comparison was available in Viet Nam. In order to meet this challenge, this project, conducted by Japan in Viet Nam, aims to provide assistance in building capacity to collect relevant data accurately and continuously as well as manage the collected data adequately. Under this program, Japan has been sending its own experts to Viet Nam to train Vietnamese experts, while also accepting trainees from the country and organizing training programs in Japan. It is expected that these activities will contribute to the formulation of climate change policy in Viet Nam.

It is worth noting that it was the Ministry of Natural Resources and Environment of Viet Nam that took the lead in producing the National GHG Inventory of Viet Nam in 2010, albeit with the support of the Japanese experts. The document will be included in the first Biannual Updated Report to be submitted to the United Nations Framework Convention on Climate Change (UNFCCC) as early as the end of 2014. (As of August 2014)

*1 A delta is a geographical feature often seen near the mouth of a river. It is usually a triangular shaped land surrounded by two or more rivers and the sea.

*2 A society that makes efforts to reduce emissions of greenhouse gas such as CO₂.

*3 An emissions inventory is a list of the amount of specific substances (such as air pollutants and harmful chemicals) produced during a certain period of time and at a specific location. A GHG inventory is a type of emissions inventory that lists the amount of emissions and absorption of gas, which is considered to be a cause of global warming (greenhouse gas) such as carbon dioxide (CO₂), by the emission and absorption source (Reference: Website of the Greenhouse Gas Inventory Office of Japan, <http://www-gio.nies.go.jp/faq/ans/outfaq1a-j.html>)



A person in charge on Vietnamese side reporting the progress at a joint coordinating meeting of the project. (Photo: JICA)

● Biodiversity

In recent years, the loss of biodiversity, which was caused by the expansion of ranges, scales and types of human activities, has emerged as a serious challenge. Japan, which places importance on biodiversity, hosted the 10th Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10) in Nagoya City, Aichi Prefecture in October 2010. For example, according to the statistics of OECD-DAC, Japan's international aid in support of biodiversity was over \$1.080 billion in 2010 and over \$1.476 billion in 2011. These figures make Japan the top donor in the world in biodiversity for two consecutive years. In October 2014, the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP12) was held in Pyeongchang, the Republic of Korea. A mid-term assessment of the Aichi Biodiversity Targets adopted at COP10 was conducted, and Japan proactively contributed to the discussions in order to maintain the momentum for achieving the Aichi Biodiversity Targets*.

At COP12, it was decided that by 2015, the total

international financial flows related to biodiversity for developing countries would be doubled from the average level of 2006-2010, and that this level would be maintained until 2020.



Iriomote Ishigaki National Park (Photo: Ministry of the Environment)

Biodiversity



"Biodiversity" refers to the abundance of life, including the many lives in the earth, the ecosystems that balance the life chain, and the genetic traits transmitted from the past to the future.

Biodiversity

Diversity of ecosystems



A variation of environments such as forests, wetlands, rivers, coral reefs, etc.

Diversity between species



A variation of species such as the existence of animals, plants, and microbes such as bacteria (Estimated number of species of organism on the earth: 5 million to 30 million)

Diversity within a species



A variation of differences within a species such as the existence of individuals that are resistant to dry or hot environment and resistant to disease

(Photo: All three by Ministry of the Environment. A green turtle and bigeye trevally (Palau): Yasuaki Kagii, Clams: Shin Fuwa)

Since living organisms are borderless, the entire world should tackle biodiversity issues; therefore the "Convention on Biological Diversity" was created.

Objectives: Parties to the Convention should work to achieve (i) the conservation of biological diversity, (ii) sustainable use of its components, and (iii) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Developed countries are providing economic and technical supports to developing countries for these objectives.

Glossary

The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

The Targets have set the mid- to long-term goal to achieve "living in harmony with nature" by 2050, with a short-term target of implementing actions to halt the loss of biological diversity by 2020. In addition, 20 individual targets were adopted, including a target of managed conservation areas covering at least 17% of terrestrial areas and 10% of marine areas.

Nicaragua Costa Rica

National Program of Sustainable Electrification and Renewable Energy (PNESER Project) (2013 – Ongoing) Guanacaste Geothermal Development Sector Loan (2013 – Ongoing) Loan aid

In March 2012, the framework agreement for “Cofinancing for Renewable Energy and Energy Efficiency in Central America and the Caribbean (CORE scheme)” was signed at the annual meeting of the Inter-American Development Bank (IDB) held in Montevideo, Uruguay. This framework is designed to provide ODA loans equivalent of \$300 million over five years for eight countries in Central America and the Caribbean, through the cofinancing with IDB.

As the first project of this framework, the Japanese government has launched the “National Program of Sustainable Electrification and Renewable Energy (PNESER Project)” in Nicaragua (an amount up to ¥1.496 billion) co-financed by IDB. Nicaragua is highly dependent on thermal power generation as its power source (approximately 77%), and the electrification rate in rural areas is extremely low, only about 30%. Thus, the diversification of the electric power sources by development of renewable energy, such as the construction of small hydraulic power plants¹, and the electrification in the rural areas are the priorities of the power sector. This project is expected to contribute to the solutions for such issues.

“Guanacaste Geothermal Development Sector Loan” for Costa Rica is the second project under the framework of the CORE scheme. In November 2013, the Governments of Japan and Costa Rica signed the Exchange of Notes for ODA loan of up to ¥56.086 billion. Based on this, several geothermal power plants will be constructed in Guanacaste Province in northwest of Costa Rica to increase the amount of electricity supplied by renewable energy. This project aims to mitigate the impacts of climate change, as well as contribute to the sustainable development of Costa Rica.

In order to provide further assistance in addition to the aforementioned projects in Nicaragua and Costa Rica, in March 2014, Japan and IDB signed a memorandum and an implementation agreement of the amendment of CORE scheme at the annual meeting of IDB held in Costa Do Sauipe in Brazil. The new agreement expanded the framework of cofinancing with IDB, increasing the target amount of ODA loans to \$1 billion, and the number of recipient countries to 19. With the expended framework, Japan will continue to provide support to increase environment-friendly electric power supply in Central America and the Caribbean.

*1 In general hydroelectric power generation, a dam is built at a location relatively far away from the power station, and electricity is produced by rotating water wheels (turbines) using water pressure and flow of water due to the difference of water levels between the power station and the dam. Although the same principle is used in small-scale hydroelectric power generation (i.e. rotating turbines by using the flow of water), it does not require a large structure like a dam (even if a structure is needed, the scale is small).
(Reference: Web site of the information of small-scale hydroelectric power generation (the Ministry of Environment) <http://www.env.go.jp/earth/ondanka/shg/page02.html>)



Testing steam discharge for the Guanacaste Geothermal Development Sector Loan - Las Pailas II. (Photo: JICA)

Côte d'Ivoire

The Project for Rehabilitation and Restoration of Forests with the Involvement of Local Communities Grant aid (June 2013 – Ongoing)

Forests once covered 60% of Côte d'Ivoire in West Africa. However, the country's forest area has decreased rapidly over the years due to forest exploitation, excessive commercial logging, and illegal felling. By 2010, the land area of Côte d'Ivoire covered by forests reached a low of 30%. Moreover, as a result of the coup d'état in 2002 and the civil war that followed many internally displaced people entered the country's forest areas and cut down many trees for fuel use, resulting in further degradation of the forests.

To address this situation, Japan has been working on a project with the aim of regenerating the decimated forests of Côte d'Ivoire in cooperation with the International Tropical Timber Organization (ITTO). The ITTO has long been active in the country. This project employs an agroforestry system, which allows trees and agricultural crops to be cultivated simultaneously. Saplings are planted with potato and other vegetable crops on lands devastated by felling. This method allows local residents to harvest agricultural crops while the trees are being grown, thereby increasing their income level. The project also aims to raise the technical skill level of the residents through the community-based cultivation of saplings and to support capacity building for sustainable forest management.

The project is aimed at restoring and regenerating ruined forests that cover approximately 2,000 ha—roughly one-third the area of Manhattan in New York city in the U.S.A. In addition, it will help support the conservation of another 140,000 ha of forests in the country by preventing further degradation. Furthermore, as the technology and experience in the restoration and regeneration of forests accumulate in the Ministry of Environment, Water and Forests and the Forest Development Corporation of Côte d'Ivoire, it is expected that forest degradation countermeasures and sustainable forest management will be implemented nationwide.
(As of August 2014)



In a degraded forest (site investigation by local residents)
(Photo: ITTO)

(2) Infectious Diseases

Infectious diseases such as HIV/AIDS, tuberculosis, and malaria are a serious problem that affects not only the health of individuals, but also the socio-economic development of developing countries. In addition, it is also a significant problem that the severity of threat from these diseases is increasing due to the emergence of such challenges as co-infection of HIV/AIDS and tuberculosis, the emergence of multidrug-resistant and extensively drug-resistant tuberculosis for which conventional drugs are not effective, and other similar conditions. Strengthening measures against new strains of influenza, tuberculosis, malaria, and other emerging and reemerging infectious diseases*, as well as ramping up for the final stage of initiatives to eradicate polio, continue to require international efforts. Furthermore, “neglected tropical diseases”* such as Chagas disease, Filariasis, and Schistosomiasis have infected approximately 1 billion people worldwide¹³, causing major socio-economic loss in developing countries. Due to the nature of infectious diseases, the impact of which could spread beyond national borders, the international community must work as one



A Japan Overseas Cooperation Volunteer, Ms. Aiko Shinomiya, giving a lecture for children on prevention of Chagas disease to promote “Chagas Disease Day” in Nicaragua. (Photo: Aiko Shinomiya)

to address these issues. Japan has also engaged in the implementation of countermeasures in close cooperation with the relevant countries and international organizations.

<Japan’s Efforts>

● The Three Major Infectious Diseases (HIV/AIDS, Tuberculosis, and Malaria)

Japan attaches great importance to supporting activities to fight the three major infectious diseases (HIV/AIDS, tuberculosis, and malaria) through the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund). The Global Fund was established as an organization to provide funding to tackle these three major infectious diseases following the discussions on measures against infectious diseases at the G8 Kyushu-Okinawa Summit in 2000 under Japan’s presidency. It was the first time that this issue was discussed at a G7/G8 summit meeting. As one of its founders, Japan has provided financial assistance to the Global Fund since its establishment in 2002, and contributed approximately \$2.16 billion to the Global Fund by the end of March 2014. It is estimated that support by the Global Fund has saved more than 8.7 million lives. Additionally, Japan provides supplemental bilateral aid through its own program to developing countries receiving aid from the Global Fund, in order to ensure that measures against these three major infectious diseases are implemented effectively in those recipient countries. Japan also strives to strengthen the linkage between the support from the Global Fund and the improvement of health care systems, community empowerment, and the policies for maternal and child health in those countries.

As bilateral assistance for HIV/AIDS countermeasures, Japan is providing assistance to spread knowledge to prevent new infections, raise awareness, widely provide testing and counseling, and enhance the distribution system of drugs to

treat HIV/AIDS. In particular, JOCV on HIV/AIDS Control are vigorously engaged in activities such as the spreading of knowledge and understanding of prevention, as well as the care and support of people living with HIV/AIDS, mainly in Africa.

With regard to tuberculosis, Japan’s assistance has been focusing on those priority countries needing action, as well as those countries where the spread of the disease is deemed to be serious, as designated and recognized by the WHO. In these countries, Japan has been promoting a series of measures to fight tuberculosis, including in terms of prevention, early detection, diagnosis and continuing treatment, as well as those measures to address co-infection of HIV/AIDS and tuberculosis. In July 2008, the Ministry of Foreign Affairs (MOFA) and the Ministry of Health, Labour and Welfare (MHLW) announced the “Stop TB Japan Action Plan,” which was developed jointly with JICA, the Japan Anti-Tuberculosis Association, and the Stop TB Partnership Japan. Making use of the experience and technology fostered through its domestic tuberculosis countermeasures, and with the public and private sectors working closely together, Japan has strived to contribute to the reduction of the annual number of deaths from tuberculosis in developing countries, particularly in Asia and Africa, setting the target at 10% reduction of the number worldwide (160,000 people, based on 2006 figures). In response to WHO’s revised counter-TB plan of 2010, “Global Plan to Stop TB 2011-2015,” Japan also revised its own “Stop TB Japan Action Plan” in 2011

Note 13: Source: “Working to overcome the global impact of neglected tropical diseases” (WHO)
http://whqlibdoc.who.int/publications/2010/9789241564090_eng.pdf?ua=1

and confirmed that it would continue to work on measures against tuberculosis on a global level under the new international health policies.

With regard to malaria, a major cause of infant mortality,

Japan provides assistance for initiatives for anti-malaria measures involving the strengthening of local communities and assistance in cooperation with the United Nations Children's Fund (UNICEF).

● Polio

With regard to polio, which is in the final stages of eradication, Japan works mainly in cooperation with UNICEF to support efforts to eradicate polio with a focus on three polio-endemic countries (countries where polio has never been eradicated and is still spreading), namely Nigeria, Afghanistan and Pakistan. In Pakistan, Japan has provided assistance exceeding a cumulative total of ¥10 billion in coordination with UNICEF since 1996. In addition, in August 2011, Japan partnered with Gates Foundation to provide nearly ¥5 billion of ODA loan. A new approach (Loan Conversion) was adopted for this ODA loan. Under this approach, the Gates Foundation

will repay the debt owed by the Pakistani Government if certain targets are achieved. In April 2014, the Gates Foundation began the repayment on behalf of the Pakistani Government, following the confirmation of project outcomes, such as the attainment of high vaccination rate. Furthermore, in FY2013, Japan provided approximately ¥1.19 billion and ¥390 million respectively to Afghanistan and Pakistan, which are recognized as polio-endemic countries. It also provided approximately ¥220 million to Zambia, a non-endemic country. As an emergency measure to counter polio in Somalia, in FY2013, Japan provided ¥110 million to the country.

● Neglected Tropical Diseases (NTDs)

In 1991, Japan took the lead by launching a full-scale effort against Chagas disease, which is also known as a "disease of poverty," in Central American countries. Japan provided assistance to establish a system for dealing with Chagas disease vectors and contributed to reducing the risk of infection. Regarding Filariasis, Japan supplies antiparasitic agents as well as educational materials to provide knowledge and understanding to a large number of people. Meanwhile, Japan also conducts preventive education through JOCV activities in order to reduce the number of new patients and maintain the non-epidemic status.

Furthermore, in April 2013, Japan launched the Global Health Innovative Technology Fund (GHIT Fund), the first public-private partnership in Japan with the purpose to facilitate the development of new drugs for treatment of infectious diseases in developing countries including NTDs. The GHIT Fund aims to defeat infectious diseases in developing countries through the research and development of low-cost and effective therapeutic medicine, vaccines, and diagnostic products, while promoting global cooperation with research and development institutions both inside and outside of Japan.

● Immunization

Vaccines are a means for combating infectious diseases with proven effectiveness and low cost, and it is estimated that 2 to 3 million lives could be saved each year using vaccination.¹⁴ Since its first contribution in 2011 to Gavi, the Vaccine Alliance*, which was established in 2000 to improve immunization rate in developing countries, Japan has provided a total of

approximately \$36.17 million to this Vaccine Alliance. Gavi estimates that, in 10 years since its launch in 2000, 296 million children have been immunized with Gavi-supported vaccines and 4 million deaths have been averted. It aims to immunize a further 243 million children from 2011 to 2015, the deadline for achievement of the MDGs, to save 3.9 million lives.

● Glossary

Emerging/reemerging infectious diseases

Emerging diseases: Infectious diseases, which were not previously known but have been newly recognized in recent years, such as SARS (severe acute respiratory syndrome), avian influenza, the Ebola virus, and other infectious diseases.

Reemerging diseases: Infectious diseases that had spread throughout the world in the past, and subsequently saw a decrease in the number of patients and were believed to have been eradicated, but that have been on an increasing trend again in recent years such as cholera, tuberculosis, and other infectious diseases.

Neglected tropical diseases

Neglected tropical diseases include such diseases as the Chagas disease, dengue fever, Filariasis, and other diseases that are transmitted from parasites, bacteria, etc. Today, the number of infected individuals has reached approximately 1 billion worldwide, with some cases resulting in death, despite many of these diseases can either be prevented or eradicated. In addition, the fact that the infection of these diseases is particularly prevalent among the poorest segment of the population in affected countries tends to keep the public awareness of this issue relatively low. Therefore, in turn, the development of diagnostic methods, treatment and new drugs, and the process of making them available to those in need, is lagging.

Gavi, the Vaccine Alliance

Gavi, the Vaccine Alliance is a public-private partnership, which was established with the aim to save children's lives and protect people's health by increasing access to immunization in developing countries. In addition to the governments of donor countries and developing countries as well as relevant international organizations, the pharmaceutical industry, private foundations and the civil society are also participating in this partnership.

Note 14: Source: WHO "Health topics, Immunization" <http://www.who.int/topics/immunization/en>

Thailand

Project for Research and Development of Therapeutic Products against Infectious Diseases, especially Dengue Virus Infection Science and Technology Research Partnership for Sustainable Development (SATREPS) (July 2009 – July 2013)

Southeast Asia, which has a large population, sees frequent outbreaks of reemerging infectious diseases,¹ such as dengue fever, influenza, and botulism, and the spread of such diseases across borders poses as a great concern. In particular, dengue fever (dengue virus infection) is an infectious disease that is transmitted by mosquitoes. In tropical regions, 50 million people are infected annually, 250,000 of which develop serious cases. This disease is a serious problem in Thailand, where over 130,000 people developed serious cases in 2013. However, symptomatic treatment, such as bed rest following infection, is the only treatment available for dengue fever. Therapeutic drugs are not yet available for commercial use.

The project aims to produce human-derived antibodies against pathogens that trigger infectious diseases², which are deemed to be vital in Thailand, through epidemiological studies³. It also aims to contribute to the development of therapies for target diseases. The experts were dispatched from the Research Institute for Microbial Diseases, Osaka University, and carried out the studies with the cooperation of Thai and Japanese researchers.

They had many successes producing human-derived antibodies. By the end of the project, 17 academic papers on the results had been published. One domestic and five foreign applications for intellectual property rights have been submitted. It is essential that the results be used to develop new therapeutic drugs. A pharmaceutical company in India that has shown interest and Osaka University have already started negotiations on future research and development. The research is much anticipated, with the increasing chances of the drugs being made available for commercial use.

*1 See "Glossary" on page 81.

*2 Influenza virus and botulinum including dengue virus and bird flu.

*3 Scientific research that studies the frequency and distribution of phenomena related to disease contraction and health to find the causes.



A Japanese researcher giving instructions on research. (Photo: Project Team)



A Thai researcher conducting research on antibodies. (Photo: Project Team)

Afghanistan

Tuberculosis Control Project in Afghanistan Phase 2 Technical Cooperation Project (October 2009 – Ongoing) The Project for Construction of Hospital for Communicable Disease Grant Aid (February 2011 – October 2013)

Tuberculosis, HIV/AIDS and malaria, which have become global epidemics and have taken the lives of many people, are referred to as the "three major infectious diseases." Tuberculosis is particularly a serious problem in Afghanistan, which is one of the 22 high-burden countries that have a large number of tuberculosis cases. For this reason, the Government of Afghanistan has been promoting initiatives to combat tuberculosis.

In 2004, Japan started implementing the Tuberculosis Control Project in Afghanistan (Phase 1) and dispatching experts under the project. The project provided support for capacity building in policy making and planning of the Ministry of Public Health, which is implementing tuberculosis measures, and developed a mycobacterium tuberculosis screening system. In 2009, Japan commenced the Tuberculosis Control Project in Afghanistan (Phase 2) in order to continue providing high-quality tuberculosis measures across Afghanistan. In this project, funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria was used for trainings and research related to tuberculosis control projects (tuberculosis screening, awareness-raising activities, and medication) and the purchase of equipment and drugs. Furthermore, with support from the project, tuberculosis measures began to be offered for people who evacuated to other countries and then returned to Afghanistan, ensuring that all people living in Afghanistan can receive high-quality screening and treatment.

Proper treatment of infectious diseases, which are one of the leading causes of death in Afghanistan, in some cases require hospital treatment at an exclusive ward. However, due to inadequate treatment facilities such as hospitals in Afghanistan, the provision of outpatient treatment is often inevitable. This raises concerns over the spread of infection and the epidemic of drug-resistant tuberculosis that cannot be treated with conventional tuberculosis drugs. Accordingly, at the request of the Government of Afghanistan, Japan provided a grant aid for the construction of a hospital exclusively for the treatment of diseases such as tuberculosis, HIV/AIDS, and malaria. In August 2013, the construction of the Afghan-Japan Communicable Disease Hospital that has 80 beds was completed in the capital city, Kabul.

The Afghan-Japan Communicable Disease Hospital is used for the treatment of drug-resistant tuberculosis, which requires hospital treatment compared to other types of tuberculosis, as well as for the treatment of AIDS and malaria patients in critical condition. There are high expectations for the hospital as the first full-fledged hospital for infectious diseases in Afghanistan.



Former Parliamentary Vice-Minister for Foreign Affairs Takao Makino (second from right in the front row) cutting the tape at the opening ceremony of the Afghan-Japan Communicable Disease Hospital in January 2014.

(3) Food and Nutrition

According to “The State of Food Insecurity in the World 2014 (SOFI2014),” a report which has been jointly prepared by the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP), positive trends were found – the number of undernourished people in the world was down by more than 100 million over the last decade and by more than 200 million since 1990-92. However, about 805 million people (2012-2014 estimates) are said to remain chronically undernourished.

This report suggests that the goal to halve the proportion of undernourished people by 2015, which is one of the Millennium Development Goals is within

reach “if appropriate and immediate efforts are stepped up.” In addition, there is a need for international coordination and multifaceted measures to establish food security (guaranteeing the right of all people to sufficient food), such as establishing a social safety-net (a mechanism in which people can live safely and with peace of mind), improving nutrition, providing necessary food assistance, and implementing measures against infectious diseases of livestock.

Furthermore, initiatives to improve nutrition during the first 1,000 days from a mother's pregnancy to her child's second birthday, which is particularly effective in addressing the issue of malnutrition, are being promoted.

<Japan's Efforts>

In light of these circumstances, Japan provides food assistance based on requests from developing countries confronting food shortages. In FY2013, Japan contributed a total of ¥5.01 billion through bilateral food assistance projects in 11 countries.

Japan also provides assistance in this area through international organizations, mainly through the WFP. These include emergency food assistance, support for school feeding programs to increase access to education, and food assistance that promotes participation in the development of agricultural land and of social infrastructure by distributing food to support the self-reliance of local communities. In 2013, Japan contributed a total of \$238.43 million to WFP projects being implemented around the world.

Meanwhile, Japan provides support for research on the development of varieties conducted by the Consultative

Group on International Agricultural Research (CGIAR), which is comprised of 15 agricultural research centers, as well as promoting cooperation through exchanges among researchers.

In addition, Japan also supports the efforts of developing countries to enhance their own food safety. Concerning animal infectious diseases that spread beyond national borders such as foot-and-mouth disease, Japan is reinforcing countermeasures in the Asia-Pacific region, in cooperation with the World Organisation for Animal Health (OIE) and FAO, including the Global Framework for Progressive Control of Transboundary Animal Diseases (GF-TADs). Furthermore, Japan is deeply involved in the Scaling Up Nutrition (SUN) movement, which internationally leads initiatives to improve the condition of malnutrition, and has pledged to strengthen its assistance.



A Japan Overseas Cooperation Volunteer, Ms. Mika Aradono, who is involved in community development, organized a cooking demonstration and tasting event with the cooperation of a grocery shop in Naivasha, a provincial city located about 70km from Nairobi, the capital city of Kenya. (Photo: Mika Aradono)

With fishery production around the world reaching its limit, aquaculture production accounts for over 40% of the global production of marine products. The growth of aquaculture production is supporting the consumption of marine products that continues to increase worldwide. Southeast Asia is one of the leading aquaculture production regions in the world, accounting for approximately 30% of the global aquaculture production volume. Thailand plays a central role in this context.

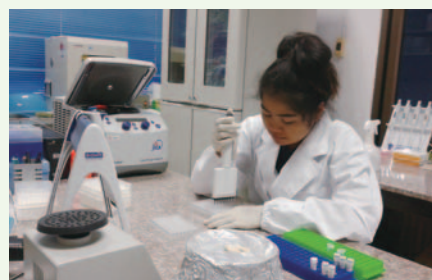
In order to ensure the sustainable growth of the aquaculture industry in Southeast Asia, it is essential to develop aquaculture technologies for popular fish varieties in the market, including grouper, sea bass, and tiger prawn. However, investment in the development of such technologies has made little progress due to the considerable burden it places on the government and the private sector, coupled with the need for advanced know-how on science and technology.

Against this background, Japan is providing technical cooperation in Thailand, the center of aquaculture production in Southeast Asia, with the aim of developing aquaculture technologies to produce sustainable and high quality fish and seafood products that have high market value. Specifically, this technical cooperation is contributing to the prevention of the infection of fish and seafood, development of new species using molecular genetic information, establishment of “surrogate” aquaculture technology that enables production of a different type of fish from its parent, development of new feed, and ensuring the safety of marine products, among other activities.

As a research outcome, this project has established a diagnostic method that can detect with 100% accuracy the infection of the bacterium that causes mass deaths of shrimps, which have led to huge losses in Southeast Asia. It is expected that the dissemination of this diagnostic technology will make a significant contribution to global shrimp aquaculture by enabling the early detection and responses to infections and recovering the declining global shrimp production volume.
(As of August 2014)



Taking egg samples from a parent of brown-marbled grouper for artificial fertilization. (Photo: Krabi Coastal Fisheries Research and Development Centre)



Conducting a diagnosis at a coastal fish farming research agency. (Photo: Satoshi Kubota, a researcher dispatched from the Japan Science and Technology Agency (JST))

(4) Resources and Energy (Including Renewable Energy)

The number of people who have no access to electricity in the world is estimated at around 1.3 billion (equivalent to 18% of the world's population). In particular, this number is estimated to reach two-thirds of the population (approximately 620 million people) in Sub-Saharan Africa. Meanwhile, in Sub-Saharan Africa, nearly four-fifths of the population (approximately 730 million people) rely on wood fuel (e.g., charcoal, firewood), which causes indoor air pollution during cooking and is a leading cause of

death among young people.¹⁵ The lack of electricity, gas and other energy services leads to the delay in industrial development, a loss of employment opportunities, a further increase in poverty, and restricted access to medical services and education. Going forward, global energy demand is expected to increase further, mainly in Asian countries as well as other emerging and developing countries. Thus, a consistent energy supply and appropriate consideration to the environment are essential.

<Japan's Efforts>

In order to realize sustainable development and secure energy in developing countries, Japan works on the provision of services, which enables modern energy supply, and the stable supply of power for industrial development. In addition, Japan provides support for the establishment of an environmentally-friendly infrastructure, such as construction of energy-saving equipment and power generation facilities that utilize renewable energy (hydropower, solar power, wind power, geothermal power, etc.).

Meanwhile, Japan provides resource-rich countries with support according to their needs, such as establishing infrastructure in the areas around mines, aiming to enable

them to acquire foreign currency through the development of their resources and to develop in a self-sustained way. Through these supports, Japan will enhance mutually beneficial relationships with developing countries with rich resources, while striving to ensure the stable supply of energy and mineral resources, by promoting the development of resources, production, and transportation by private companies. It is important to proactively use Japanese ODA in the resource and energy sectors alongside support from the Japan Bank for International Cooperation (JBIC), Nippon Export and Investment Insurance (NEXI) and Japan Oil, Gas and Metals National Corporation

Note 15: Source: “World Energy Outlook 2013” (estimates as of 2011) (International Energy Agency [IEA]), “Africa Energy Outlook (2014)” (IEA)

(JOGMEC).

Japan also proactively supports the Extractive Industries Transparency Initiative (EITI). EITI is a multinational cooperative framework created for increasing the transparency of the flow of money in development of oil, gas, mineral and other resources. Under this framework, extracting corporations report the amount of payment to the governments of resource-producing countries and

the governments report the amount of received money. Participants in EITI include 39 resource-producing countries, many supporting countries including Japan, extractive companies and NGOs. EITI participants are working together to prevent corruption and conflict, as well as to encourage responsible resource development that leads to growth and poverty reduction.

Bangladesh

New Haripur Power Plant Development Project (II) Loan aid (March 2009 – Ongoing)

In March 2014, the New Haripur Power Plant started operating in the Narayanganj District on the outskirts of Dhaka, the capital city of Bangladesh. This power station achieves both high heat efficiency and reduction of CO₂ emission.

In Bangladesh, due to the recent increase of the electrification rate and the progress of industrialization, power supply is not keeping up with the demand. In 2014, the largest amount of power supplied was 7,536 megawatt (MW), while the potential demand was 9,652 MW; thus, power supply capacity remains around 80% of the demand. In addition, it is estimated that the demand for electricity will increase approximately 10% per year for the next 10 years.

The power generation capacity of the New Haripur Power Plant is 412 MW, one of the largest for a single thermal power station in the country. It is a combined-cycle power plant that uses natural gas and steam, and Japanese technologies are fully utilized for the important equipment of the plant: for example, the gas turbine was provided by Mitsubishi Heavy Industries, Ltd., and the steam turbines by Fuji Electric Co., Ltd. This state-of-the-art power plant has the heat efficiency of approximately 56%, more than twice that of other conventional gas thermal power plants in Bangladesh. In addition, the fact that it took virtually 36 months from the construction to the start of operation drew attention, since public projects tend to be delayed in the country.

Furthermore, “Long Terms Service Agreement” will be signed with a Japanese manufacturer in terms of the maintenance and operation of the gas turbine, in order to enhance the sustainability of the project. Specifically, in addition to the stable supply of hard-to-find parts produced by gas turbine manufacturers, personnel at the power plant will be given guidance on the operation and maintenance of the plant through periodic inspections of the gas turbine that will be conducted in a cycle of five or six years. This will provide a structure in which the local personnel at the power plant can carry out the long-term, stable operation and maintenance of the state-of-the-art power plant.
(As of August 2014)



The view of the Haripur Power Plant in Bangladesh.
(Photo: JICA)

Kenya

The Project for Capacity Strengthening for Geothermal Development in Kenya Technical Cooperation Project (September 2013 – Ongoing)

In accordance with the economic growth and population increase, the peak demand of electricity in Kenya is expected to significantly increase to 12,738 – 22,985 megawatt (MW) by 2030, from 1,227 MW in 2010. However, as of 2011 the capacity of power generation facility is only 1,593 MW, and therefore, a large-scale development of power supply system will be required.

Taking notice of geothermal resources, which are said to have a potential generation capacity of 7,000 MW, the Government of Kenya split the geothermal department of Kenya Electricity Generating Company Limited (KenGen) to establish a new company, Geothermal Development Company Ltd. (GDC), in 2009. The Government of Kenya has also been planning to increase the capacity of power generation facility that uses geothermal energy to 5,300 MW.

Under this plan, GDC has been implementing operations including boring tests; however, the company faced technical challenges, such as the difficulty in identifying appropriate drilling points, in reaching the intended target, and in determined sustainable steam production amounts. Furthermore, technological improvements are required in exploration, boring, and assessment of geothermal reservoir. To address these challenges the Japanese government initiated the Project for Capacity Strengthening for Geothermal Development in Kenya, in which it dispatches experts and conducts month-long training programs in Japan to train about 22 people per year by teaching boring techniques and know-hows to assess reservoir. Japan also provides equipment to back up GDC's geothermal development initiatives, aiming to make contributions to the capacity building of around 500 personnel of GDC in a total of four years of the cooperation period.
(As of August 2014)



Instructions on drilling are provided at a geothermal development site in Kenya. (Photo: JICA)

(5) Cooperation in Disaster Risk Reduction and Emergency Assistance in the Event of Disaster

Disasters caused by earthquakes, tsunamis, typhoons, floods, debris flows, and other natural events that occur frequently around the world do not merely take human lives and property. In developing countries that are vulnerable to disasters, the poor suffer from significant damage and become displaced in many cases. In addition, secondary damage such as the deterioration of sanitary conditions and food shortages may become protracted, making the problem more severe. In this respect, disasters have a

significant impact on the overall social and economic mechanisms of developing countries.

Against this backdrop, it is necessary to build a disaster resilient society to protect human lives from disasters, as well as to promote the “mainstreaming of disaster reduction,” aiming at sustainable development, by incorporating disaster risk reduction measures into every phase of every sector of development based on assumptions of disasters of various scales.

<Japan's Efforts>

● Cooperation in disaster risk reduction

Japan utilizes its superior knowledge and technology acquired through past experiences of responding to natural disasters such as earthquakes and typhoons to provide proactive support in the fields of disaster prevention and post-disaster reconstruction, alongside emergency assistance. In 2005, at the Second UN World Conference on Disaster Reduction in Kobe, the Hyogo Framework for Action 2005-2015 was adopted as a basic guideline for disaster risk reduction activities in the international community, and the importance of effectively incorporating disaster risk reduction aspects into initiatives for sustainable development was confirmed. Japan partners with the United Nations and other organizations to promote its worldwide implementation.

At this conference, Japan also announced the “Initiative for Disaster Reduction through ODA,” which represents Japan’s basic policy on disaster risk reduction cooperation. In this policy, Japan expressed its intention to continue proactively supporting the self-help efforts by developing countries towards building a disaster-resilient society through building of systems, human resources development, development of socio-economic infrastructure, and other measures.

On July 3 and 4, 2012, Japan hosted the World Ministerial Conference on Disaster Reduction in Tohoku in three prefectures afflicted by the Great East Japan Earthquake. During the conference, the following aspects were affirmed and the necessity of “Disaster Reduction in the 21st Century” as a comprehensive way to promote these aspects was proposed to the world: the necessity of mainstreaming disaster risk reduction and building resilient societies; the importance of human security; the need to maximize combining

both structural and nonstructural disaster risk reduction capabilities; the necessity of collaboration beyond the roles of various stakeholders; the importance of responding to newly emerging disaster risks such as climate change and urbanization. Participants in the conference also confirmed the positioning of disaster risk reduction in the post-2015 development agenda, as well as the need for formulating the post-Hyogo Framework for Action that incorporates the results of this conference, in order to actually promote the “Disaster Reduction in the 21st Century.” Japan also pledged to provide \$3 billion in three years from 2013 to 2015 to support initiatives in the disaster reduction field.

In March 2015, the Third UN World Conference on Disaster Risk Reduction will be held in Sendai City, Japan. The successor framework of the Hyogo Framework for Action 2005- 2015 will be formulated during this conference, and Japan intends to contribute to the mainstreaming of disaster risk reduction through the discussions on this issue.



Conducting a Disaster Table Top Exercise in Teheran, Iran. (Photo: Katsu Kato / Oriental Consultants Global Co., Ltd.) See page 89, for more details of the project.



An educational event for disaster risk reduction was held in Sakarya City in Turkey, using an earthquake simulation vehicle of a private insurance company. Several thousands of children in the prefecture participated in the event. (Photo: Taichi Minamitani / JICA Turkey Office)

● Japan's Emergency and Humanitarian Assistance

Japan stands ready for immediate provision of emergency assistance in response to requests from the government of an affected country or an international organization when a large-scale disaster occurs overseas. Japan has four types of Japan Disaster Relief (JDR) Teams to provide humanitarian assistance: (i) Search and Rescue Team to search and

rescue victims; (ii) Medical Team to provide urgent medical assistance; (iii) Expert Team to give technical advice or guidance on emergency response measures and recovery operations; and (iv) Self-Defense Force Unit to provide emergency assistance, such as medical activities and transportation when it is deemed particularly necessary in response to a large-scale disaster, etc.

In-kind assistance includes the provision of Emergency Relief Goods. Japan stockpiles tents, blankets, and other goods at overseas warehouses in five locations at all time, which enables Japan to be prepared to swiftly provide relief goods to affected countries when a disaster occurs.

Moreover, with the aim to provide relief to displaced persons or people affected by natural disasters and/or conflicts, Japan extends Emergency Grant Aid for the governments of affected countries as well as the International Red Cross, which provides emergency assistance in areas affected by the disasters.

In FY2013, Japan provided Emergency Relief Goods on a total of 16 occasions to 15 countries, including the Philippines,



Japan Self-Defense Forces medical team providing medical treatment in Daanbantayan on Cebu Island, in response to the typhoon Haiyan (Yolanda) disaster in November 2013. (Photo: Ministry of Defense)

Myanmar, South Sudan, and Bolivia.

Regarding the Emergency Grant Aid, Japan provided approximately ¥7.9 billion in FY2013 as emergency disaster assistance to a total of eight countries, including India and the Philippines, in order to provide support for the people affected by natural disasters, as well as Syrian refugees and internally displaced persons. For example, for Syrian refugees and internally displaced persons, Japan contributed a total of \$35 million through international organizations to provide assistance in the areas of food and relief supplies, water and sanitation, and other areas.

In response to the typhoon disaster that hit the central Philippines in November 2013, Japan provided approximately ¥60 million worth of emergency relief supplies (such as plastic sheets) and \$30 million (approximately ¥3 billion) in Emergency Grant Aid. In addition, Japan deployed JDR Medical Teams, Expert Teams (experts of early recovery and oil-spill prevention), and Self-Defense Force Units. The dispatched Self-Defense Force Units consisted of approximately 1,100 personnel, the largest ever, and it conducted activities such as medical assistance, epidemic prevention, and transportation of affected people and relief goods.

For the search and rescue operations implemented in response to the disappearance of a Malaysia Airlines plane in March 2014, a search aircraft of the Japan Coast Guard and four Self-Defense Force aircraft were dispatched and participated in the international search and rescue operations.

● Collaboration with International Organizations

Japan cooperates with the “Global Facility for Disaster Reduction and Recovery” established in 2006 and managed by the World Bank. This Facility aims at supporting efforts to improve the ability for disaster risk prevention planning and post-disaster reconstruction in low- and middle-income countries that are vulnerable to natural disasters.

Against the backdrop of increased awareness of the importance of disaster risk reduction, representatives from countries all over the world and from international organizations such as the World Bank and UN bodies, which are involved in disaster risk reduction, gathered at a meeting of the UN General Assembly in 2006. At the meeting, the decision was made on the establishment of the “Global Platform for Disaster Risk Reduction” as a forum to facilitate discussions regarding disaster risk reduction. The first meeting of the Global Platform was held in June 2007. Japan proactively supports the activities of the Secretariat of the UN International Strategy for Disaster Reduction (UNISDR), which serves as the secretariat for the Global Platform. In October 2007, the Hyogo Office of the UNISDR was opened.



A girl collecting water from a communal tap in a temporary housing area in Tacloban, Leyte Province in the Philippines. (Photo: Mika Tanimoto / JICA)

In May 2013, the fourth session of the Global Platform for Disaster Risk Reduction was held in Geneva, Switzerland. More than 3,500 delegates representing 172 governments, NGOs and private organizations participated in the meeting. Japan announced that it would host the Third UN World Conference on Disaster Risk Reduction in Sendai City, Japan.

Eight years have passed since the Second World Conference on Disaster Reduction in Kobe, and Japan has been proactively engaged in the follow-up efforts on the Hyogo Framework for Action, which serves as the basic guideline for disaster risk reduction activities in the international community, while also utilizing the forums provided by meetings of the Global Platform.

In addition, Japan is also supporting the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) by providing communication equipment and dispatching personnel as well as providing emergency relief goods and support for establishing a goods management and distribution system.

The Philippines

The Project on Rehabilitation and Recovery from Typhoon Yolanda
Technical Cooperation for Development Planning (January 2014 – Ongoing)**The Programme for Rehabilitation and Recovery from Typhoon Yolanda**
Grant Aid (May 2014 – Ongoing)

Typhoon No. 30 (known as Typhoon Yolanda in the Philippines) directly hit the Philippines on November 8, 2013, causing enormous damage in its 36 states. The typhoon swept across the Philippines, mainly the Visayas region in the central Philippines. The typhoon was of an unprecedented force in recorded history, with a maximum wind speed of 87.5 m/s and a maximum instantaneous wind velocity of 105 m/s. It killed over 6,000 people, damaged over 1 million houses, and displaced over 4 million people. A large area was affected, including many cities and towns. In particular, the typhoon caused catastrophic damage in areas where many poor people live, such as the east coast of northern Leyte Island and the south coast of Samar Island. The Philippines' major industries including coconut farming and fisheries were hit hard, making it uncertain whether the people living there can make a living over the next several years.

In the wake of this situation, Japan conducted emergency relief operations, such as dispatching the Japan Disaster Relief (JDR) Team in the immediate aftermath of the disaster. Subsequently, in the recovery phase, Japan has been providing grant aid to help rebuild damaged primary schools and hospitals, establish measures to secure the means of livelihood of the victims, and restore public infrastructure such as airports and local government offices.

Furthermore, in order to support the Philippines' rehabilitation in the mid- to long-term and to provide seamless cooperation, the implementation of Technical Cooperation for Development Planning was decided. This project provides comprehensive support for a series of processes aimed at the early recovery and rehabilitation of the affected areas and the building of a society and communities that are more resilient to disasters, while referring to Japan's experience with disasters and lessons learned on disaster risk reduction and recovery efforts. In addition to providing support for the formulation of a rehabilitation and recovery plan, Japan will support the rehabilitation and recovery efforts of the Government of the Philippines, under the assumption that the interim results of the aforementioned project will contribute to subsequent grant aid and ODA loan programs. (As of August 2014)



A survey team personnel explaining the concept of land usage to the city officials, using a hazard map created by the Japanese survey team during a reconstruction planning workshop. (Photo: JICA)

Iran

Capacity Building for Earthquake Risk Reduction and Disaster Management in Tehran**Technical Cooperation Project (April 2012 – Ongoing)**

Tehran, the capital city of Iran, is located in an active seismic belt. Major earthquakes have occurred in around 150-year cycles, striking in 1665 and then in 1830. However, with no major earthquakes striking Tehran in the last 185 years, people have become less conscious about disaster preparedness. In addition, urbanization has proceeded at a rapid pace without implementing appropriate disaster risk reduction measures, raising concerns that if a large-scale earthquake were to hit the city, it could result in an unprecedented catastrophe.

Against this background, Japan has been providing assistance to Tehran with the aim of projecting the possible extent of damages if earthquakes were occur, formulating a master plan, and developing a plan for the initial response after an earthquake, among other activities. Through this project, Japan provides support for building up the capacities of the Tehran Disaster Mitigation & Management Organization (TDMMO) related to the road disaster risk reduction plan, the community-based disaster risk reduction plan, and the establishment and operation of an early warning system. It is expected that the project will enhance the capabilities of the city of Tehran in three areas, which are road disaster risk reduction, public outreach (disaster risk reduction education), and early warning, in order to deal with earthquake disasters.

Notably, Japan shared with the TDMMO and those involved in disaster risk reduction not only related technologies but also lessons learned and its experience with previous large-scale earthquakes, including the Great Hanshin-Awaji Earthquake (1995) and the Great East Japan Earthquake (2011). Through such initiatives, the project aims to raise disaster risk reduction awareness among the government and citizens, minimize damage from disasters as much as possible, as well as create a disaster-resilient city where the government and local government can take immediate emergency responses following a disaster. (As of August 2014)



A scene from lifesaving training to respond to disaster. (Photo: Ryoji Takahashi / Oriental Consultants Global Co., Ltd.)

How the disaster management technology of Japan, a disaster-prone nation, saved 5,000 villagers from flooding

— Japanese engineers struggle against natural dam collapsing in Indonesia



Experts, Mr. Tadanori Ishizuka (center) and Mr. Hisaya Sawano (right), in front of the PWRI's water stage gauging buoy. (Photo: Public Works Research Institute)

surrounded by sturdy-looking rocks. We therefore used the CGI video of the natural dam collapsing, which Mr. Ishizuka brought from Japan, along with erosion control pamphlets and other materials made by JICA, and continued the educational activities together with local and national NGOs, college students, and representatives of the village. The video was very effective. It helped a lot of the residents understand the danger of the natural dam collapse and the necessity of emergency evacuations,” Mr. Tokunaga commented.

At the end of February 2013 – five months prior to the natural dam collapse – PWRI, which Mr. Ishizuka belongs to, signed an agreement with the Ministry of Public Works of Indonesia, and then set up a device (PWRI's water stage gauging buoy) in order to automatically measure the water level of the natural dam. Relevant parties from Japan and Indonesia continued to monitor the natural dam, and shared information on its water level. The

experts monitoring changes in the water level found that the situation had become dangerous several days before the collapse, and urged the village residents to evacuate. The residents, with clear images of possible damage from natural dam collapse, promptly evacuated, which contributed to minimizing casualties.

“On that day, I noticed on my computer in Japan that the water level of the natural dam had reached its full capacity and realized how terrible the situation became. I was very worried because I could not reach my collaborators in Indonesia by phone. It was a great relief when I later learned that the disaster had caused minimal casualties,” said Mr. Ishizuka. It can be said that this was achieved because the Indonesian government officials and local residents listened to the scientific analysis from Japan, a disaster prone nation. While this did not attract much attention in Indonesia because of the minimal damage, it is said that among local residents, many share a strong feeling that their lives were saved by Japanese.

“The natural conditions of Indonesia are similar in many ways to those of Japan, so I believe that Japan can greatly contribute to the field of water-related disasters in Indonesia,” commented Mr. Sawano. It is expected that Indonesia will take advantage of this experience when working to reduce the risks of possible disasters in the future.

*1 An Incorporated Administrative Agency



An expert, Mr. Yoshio Tokunaga (right), receiving a letter of appreciation from the village mayor to JICA. (Photo: Public Works Research Institute)

(6) Transnational Organized Crime and Terrorism

Globalization, the advancement and proliferation of high-tech devices, and expanded mobility has turned transnational organized crime and terrorism into a threat to the entire global community. In recent years, transnational organized crime, to include illicit drug trafficking, trafficking of firearms, trafficking in persons, cybercrime, and money laundering, has become increasingly sophisticated in its methods. Not only are groups, which are affiliated with and influenced by Al-Qaeda and other international terrorist organizations, becoming increasingly active in Africa and the Middle East, but also individual acts of terrorism, influenced by violent extremism, as well as

foreign terrorist fighters pose a grave threat. In addition, piracy off the Coast of Somalia and in the Gulf of Aden in eastern Africa remains a concern.

There are limitations for any one nation in effectively dealing with transnational organized crime, acts of terrorism, and piracy. Therefore, not only must each nation strengthen its countermeasures in each respective area, but the entire international community must work together to eliminate legal loopholes in the international system through efforts in criminal justice and law enforcement capacity building assistance in developing countries.

<Japan's Efforts>

● Counter-Narcotics

Alongside Japan's active participation in the United Nation's Commission on Narcotic Drugs, Japan also contributes to the United Nation International Drug Control Programme (UNDCP) fund, which is part of the United Nations Office on Drugs and Crime (UNODC), to support the counter-narcotics efforts primarily in Southeast Asian countries and Afghanistan. \$500,000 to the UNDCP fund for projects and implemented various activities and projects, such as: monitoring of the status of illegal production of poppies (plants grown as ingredients for the drug opium) in Myanmar; analysis of trend surveys in synthetic drugs in Southeast Asia and other areas; capacity building of law enforcement authorities in the West Africa region on the bases of the situation in which an increasing amount of methamphetamine has been manufactured and smuggled into Japan in recent years. Japan contributed \$ 5 million to support counter-narcotics measures (e.g., border control, alternative development, drug abuse prevention) in Afghanistan, which is the world's largest illegal producer of poppies and poses a serious issue to the international community, and neighboring countries.

● Measures Against Trafficking in Persons

With regard to measures against trafficking in persons, Japan provides assistance to prevent trafficking, help victims, and contribute to capacity building of law enforcement agencies. Japan also provides support for the repatriation and social reintegration of foreign trafficking victims who were identified in Japan.

Concerning the victims of trafficking in persons, Japan provides assistance through contribution to the International Organization for Migration (IOM) for the safe repatriation of victims of trafficking and their reintegration in their home



A drug-sniffing dog purchased with the contributions from Japan to UNODC. (The national border of Iran and Afghanistan)



Heroin seized by the Government of Iran at the national border of Iran and Afghanistan. (Photo: Both by Hiroshi Fumoto / Embassy of Japan in Iran)

countries, who are under protection in Japan. Moreover, Japan provides support for the "Bali Process," which is a framework on people smuggling, trafficking in persons, and transnational crime in the Asia-Pacific region.

Furthermore, Japan has thus far provided beneficial support to measures combating trafficking in persons through the Grant Assistance for Grass-Roots Human Security Projects (Thailand and Myanmar) as well as technical cooperation in Thailand, Myanmar, and Viet Nam.

● Measures Against Corruption

As part of its efforts combating corruption, Japan contributed \$200,000 to the Crime Prevention and Criminal Justice Fund (CPCJF) of the UNODC in FY2013. In addition, Japan continues to strengthen measures against corruption through capacity building of government officials in Southeast Asia, and extends support by promoting asset recovery* in Middle Eastern countries, which are in the process of democratization.

In addition, through the United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders (UNAFEI), Japan held an International Training Course on the Criminal Justice Response to Corruption on the theme of “Effective Prevention and Detection of Corruption Cases and Public-Private Cooperation” for criminal justice professionals in developing countries, mainly in the Asia-Pacific

● Measures Against Cybercrime

Japan promotes international coordination with the aim of dealing with increasing cases of cybercrimes. In particular, Japan works on the capacity building assistance for judicial and law enforcement agencies in the Asia-

Pacific region. For this International Training Course, themes have been selected from the key issues of the United Nations Convention against Transnational Organized Crime (UNTOC) and the United Nations Convention against Corruption (UNCAC) in order to contribute to the sound development of the criminal justice system and the strengthening of cooperative relationships in each country. Likewise, Japan has been holding an annual seminar called “Regional Seminar on Good Governance for Southeast Asian Countries” since 2007, with the objective of supporting efforts to establish “rule of law” and “good governance” in Southeast Asian countries and contributing to human resources development in the area of criminal justice and corruption response. In 2013, a seminar was held in Kuala Lumpur, Malaysia, on the theme of “Enhancing Investigative Ability in Corruption Cases.”

Pacific region. In FY2013, Japan contributed \$150,000 to CPCJF, and in collaboration with the United States, supported efforts to improve the ability of Southeast Asian countries to tackle cybercrimes.

● Counter-Terrorism

The international community must make every effort to prevent the means of terrorism from falling into the hands of terrorists, deny them safe havens, and overcome vulnerabilities to acts of terrorism. To assist the international communities’ efforts, Japan provides capacity building assistance to those developing countries, which are not equipped with sufficient capabilities. Japan has also intensified its support for counter-terrorism measures taken in developing countries since the establishment of the Grant Aid for Cooperation on Counter-Terrorism and Security Enhancement in 2006.

For Japan, preventing terrorism and ensuring security in the Southeast Asian region, with which Japan has a close relationship, as well as in North Africa and the Sahel region near Algeria, where a terrorist attack occurred against Japanese nationals residing in the country, have a particular significance. Thus, Japan has strengthened its effort into its support for these regions. Specifically, Japan implements a variety of support such as providing equipment, dispatching experts, hosting seminars and accepting trainees in various different fields including immigration control, aviation

security, port and maritime security, cooperation with customs, export control, cooperation for law enforcement, measures against terrorist financing (measures to cut off the flow of money towards terrorists and terrorist organizations) and the promotion of completing international counter-terrorism conventions and protocols.

Japan has been stepping-up its engagement in international counter-terrorism efforts following the terrorist incident in Algeria in January 2013. At TICAD V held in June 2013, Japan announced that it will support the enhancement of the counter-terrorism capabilities of those countries in North African and the Sahel region, including the development and equipping of 2,000 counter-terrorism personnel, as well as ¥100 billion in development and humanitarian assistance to contribute to the regional stability in the Sahel region. Specifically, with the cooperation of international organizations, including UNODC and the United Nations Development Programme (UNDP), Japan provides supports for countries in North Africa and the Sahel region to conduct drills and trainings for strengthening police and border control capacities, improving security

● Glossary

Money laundering

Money laundering refers to the act of disguising funds or proceeds obtained from criminal activities as legally obtained assets, or the act of hiding such funds. For example: An act where a drug dealer hides money obtained through drug transactions in a bank account opened under a false name.

Asset recovery

Asset recovery is a measure by which countries freeze and confiscate revenue from corrupt practices that have flowed out of the country through the illegal activities of a former dictator, etc. and return it to their country of origin. It is part of international cooperation in the anti-corruption field.

Note 16: See “The Project for Strengthening Criminal Justice and Law Enforcement Capacities in the Sahel Region” on Page 104.

capacity through PKO training centers, and for reinforcing the judiciary system.¹⁶ In October 2013, Japan supported the dispatch of a study mission by the African Center for Studies

● Actions Against Piracy

As a maritime nation, Japan depends largely on maritime transport for the import of energy resources and food. Counter-piracy measures for ensuring the safety of navigation of vessels are issues involving a direct link to Japan's prosperity and existence as a nation. Furthermore, maritime safety is an essential prerequisite for the economic development of the region.

In recent years, many incidents of piracy¹⁷ occurred off the coast of Somalia and in the Gulf of Aden in Eastern Africa, while the number of pirate attacks fell sharply from 237 in 2011 to 75 in 2012 and 15 in 2013 as a result of the efforts by the international community. Despite the decrease in incidents of piracy, the root causes that spawn piracy have not been addressed, including the issues of poverty and unemployment among young people in Somalia. Moreover, Somalia transitioned from the Transitional Federal Government to Federal Government recently, in August 2012, and still lacks adequate capacity to independently crack down on piracy. Considering the fact that the crime organizations that conduct acts of piracy have not been eradicated, the situation still requires caution. If the international community relaxes its efforts, the situation could easily reverse.

As part of the initiatives to deal with the issue of piracy off the coast of Somalia, Japan has been implementing counter-piracy measures, such as deploying two destroyers and two P-3C maritime patrol aircraft of the Maritime Self-Defense Force to conduct escort activities for commercial

ships and surveillance activities targeting pirates, based on the Act on Punishment and Countermeasures against Piracy enacted in June 2009. Japan Coast Guard law enforcement officers are also on destroyers to make arrests, question detainees and perform other duties of judicial law enforcement activities when acts of piracy are committed.

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Resolving the Somali piracy problem requires enhancement of the maritime law enforcement capabilities of coastal countries and multilayered efforts aiming for the stabilization of the situation in Somalia, which is of particular relevance to the expansion of piracy activities, in addition to the abovementioned activities on the sea. As part of these efforts, Japan contributed a total of \$14.6 million to the IMO Djibouti Code of Conduct Trust Fund, which was founded by the International Maritime Organization (IMO)¹⁸ to implement the Djibouti Code of Conduct (a regional framework for improving capabilities for maritime law enforcement in Somalia and its neighboring countries), which is promoted by the IMO. This Trust Fund has been used to upgrade and operate information-sharing centers for anti-piracy measures in Yemen, Kenya and Tanzania, and to establish a Djibouti Regional Training Center, which is presently under construction. Currently, the IMO is also conducting training programs to improve maritime security capabilities in countries surrounding Somalia.

In addition, Japan has contributed a total of \$3.5 million to the Trust Fund to Support Initiatives of States Countering

Piracy off the Coast of Somalia. Its purpose is to assist Somalia and its neighboring countries improve their capabilities, in order to arrest and prosecute alleged pirates. Japan has been supporting the international community striving to arrest and prosecute, and prevent the reoccurrence of piracy. In addition, in cooperation with the Japan Coast Guard, Japan has carried out training programs for the control of maritime crime, inviting maritime security officers from the countries around Somalia. Furthermore, since 2007, Japan has disbursed approximately \$323.1 million to Somalia in assistance to strengthen domestic security, provide humanitarian assistance, and develop the infrastructure within Somalia, in order to bring peace to Somalia.



A destroyer protecting a ship traveling off the coast of Somalia and in the Gulf of Aden.
(Photo: The Ministry of Defense)

Note 17: Typically, pirates off the coast of Somalia and in the Gulf of Aden attack a ship navigating in the water with automatic rifles and rocket launchers, take control of the ship, and demand ransom for the safe release of the crew.

Note 18: On January 1, 2012, former IMO Maritime Safety Division Director Koji Sekimizu assumed the position of IMO Secretary-General.