

3 Promoting Efforts to Address Global Issues and Human Security

(1) Health and Medical Care

It is said that roughly at least half of the world's population has no access to basic medical care and more than 5.2 million children ³⁹ under the age of five die annually due to preventable diseases. Over 295,000 women ⁴⁰ die during and following pregnancy and childbirth per year, primarily due to the lack of emergency obstetric care provided by obstetricians, gynecologists, and/or midwives.

Sustainable Development Goal (SDG) 3 aims to “Ensure healthy lives and promote well-being for all at all ages.” In addition, in order to respond to various health issues, which differ across countries and regions, achieving

“universal health coverage (UHC)” ⁴¹ is positioned as an important international goal.

Japan's Efforts

■ Promotion of UHC (Japan's Initiatives at International Conferences)

Japan has attached importance to initiatives to improve healthcare that are directly linked to human security for a long time. Japan has been actively leading the promotion of UHC and strengthening of health systems under the “Japan brand” at international forums including the G7, G20, TICAD, the UN General Assembly, and more (see Part I for Japan's Support in Response to COVID-19 including the COVAX AMC Summit, see “ODA Topics” on page 56 for details on the Tokyo Nutrition for Growth Summit 2021).

Human Security

The Sustainable Development Goals (SDGs) present a vision of a prosperous and vibrant society where “no one is left behind.” This is in concurrence with the concept of “human security” that Japan has been promoting for many years, which seeks to build states and communities by protecting and empowering individuals so that they can live in dignity, free from fear and want. In the Development Cooperation Charter, human security is also positioned as the guiding principle that lies at the foundation of Japan's development cooperation, and in order to promote human security, the Government of Japan undertakes various efforts both to (i) spread the concept and to (ii) put it into practice on the ground.

(i) Spreading the concept

After the unanimous adoption by the UN General Assembly of the resolution concerning common understanding of human security led by Japan in 2012, Japan continues its efforts to promote the concept. In his address to the General Debate of the UN General Assembly in September 2020, then Prime Minister Suga proposed deepening discussions on a new concept of human security in light of COVID-19, and a High-Level Advisory Panel was established under the UN. Based on the panel's discussions, the Special Report on Human Security - New Threats to Human Security in the Anthropocene was released in February 2022.^{*1} At the same time, the Group of Friends of Human Security^{*2} was relaunched at the UN Headquarters in New York. The first meeting of the Group of Friends of Human Security was held in June 2021 in the presence of UN Secretary-General Guterres, and the second meeting was held in December of the same year.

(ii) Putting the concept into practice on the ground

Japan spearheaded the launch of the “UN Trust Fund for Human Security” in 1999 and has contributed approximately ¥48.4 billion in total by the end of FY2020. The trust fund has supported 267 UN projects to ensure human security in over 100 countries and regions by the end of 2020.

*1 Overview of the special report: <https://hdr.undp.org/content/2022-special-report-human-security>

*2 The Group was created in 2006 and held a total of seven meetings until 2009, which led to a UN General Assembly Resolution on human security adopted in 2012. Recognizing that discussions on the concept of human security should be reinvigorated to aim for recovery from COVID-19, the Group of Friends of Human Security was re-launched with the UN Permanent Representatives of Japan, Costa Rica, and Senegal as co-chairs.

³⁹ According to the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), and others (as of 2019). The previous total was over 5.3 million children.

⁴⁰ According to UNICEF, WHO, and others (as of 2018). The previous total was over 295,000 women.

⁴¹ UHC aims at ensuring that all people can receive the quality health services they need at an affordable cost without financial hardship.



A JICA expert providing technical instruction on the planning of teaching guidelines based on the new curriculum for the training of medical technicians to her main counterparts, the principal of the National School of Health in La Paz and the principal of the Bolivian-Japanese Technical School of Health in Bolivia (Photo: JICA)

On September 24, 2021, then Prime Minister Suga gave an address in the form of a video message to the General Debate of the 76th session of the UN General Assembly. In his address, he mentioned contributions to the discussions on WHO review and reform, the importance of UHC, the formulation of the “Global Health Strategy” and Japan’s contribution to building a new architecture for global health security, and support for discussions on “human security” of the new generation, held under the UN toward building resilient global health systems. He also stated that Japan would hold the Tokyo Nutrition for Growth Summit 2021 in December 2021.

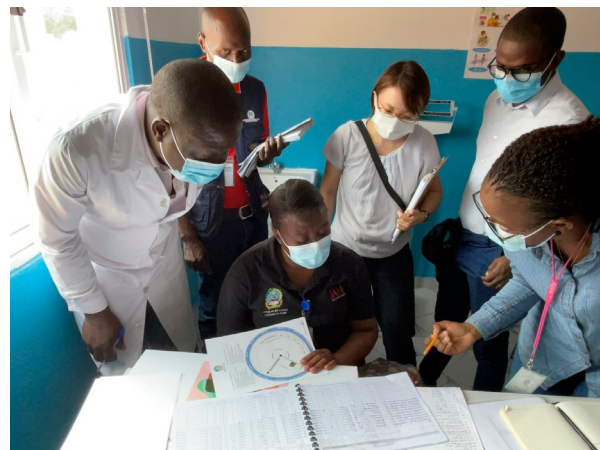
In addition, on September 30, 2021, then Foreign Minister Motegi co-hosted the High-Level Side Event on UHC on the margins of the UN General Assembly ⁴² in virtual form. In his video message, he reiterated Japan’s determination to exercise leadership toward achieving UHC based on the lessons learned from COVID-19.

At the G20 Joint Finance and Health Ministers’ Meeting held in Rome in October 2021, G20 members reaffirmed their commitment to the G20 Shared Understanding on the Importance of UHC Financing in Developing Countries, which was compiled in 2019 under Japan’s G20 Presidency. At the G20 Rome Summit in the same month, Prime Minister Kishida introduced Japan’s hosting of the Tokyo Nutrition for Growth Summit 2021 in December and stated that Japan would contribute to addressing global malnutrition from a comprehensive perspective, including health and food. The G20 Rome Leaders’ Declaration confirmed the commitment to achieve the health-related SDGs, in particular UHC.

■ Promotion of UHC (Japan’s Concrete Contributions)

Under the “Basic Design for Peace and Health (2015),” the Government of Japan provides assistance to achieve UHC that aims to “leave no one behind” (see also “Master Techniques from Japan to the World” on page 60, and “Project Introduction Columns” on page 57 and 101). In addition, in light of COVID-19 and various other changes in the global situation, the “Global Health Strategy,” which aims to realize renewed UHC for the post-COVID-19 era and strengthen response capacity, prevention, and preparedness for public health crises, is planned to be formulated as early as possible by June 2022.

Primary healthcare services under UHC comprise all services ranging from nutritional improvement, vaccination, maternal and child health, sexual and reproductive health, infectious disease control, non-communicable disease (NCD) control, and comprehensive community care and long-term care for the elderly (see “(8) Food Security and Nutrition” on page 82 regarding nutritional improvement).



A Japanese expert visiting health centers that began distribution of Maternal and Child Health (MCH) Handbooks and providing assistance such as in-facility training in Angola (Photo: JICA)

Especially with regard to maternal and child health in developing countries, there are still significant challenges, and in 2021, Japan supported many countries including Kenya, Madagascar, Bangladesh, Pakistan, Cambodia, and Laos to improve maternal and child health.

Furthermore, Japan implements activities utilizing the Maternal and Child Health (MCH) Handbook as a means of improving maternal and child health, based on its experience and expertise. The MCH Handbook can contribute to the Continuum of Care (CoC) from pregnancy, childbirth, the post-partum period, ⁴³ the neonatal period, infancy, and to early childhood. It also enables mothers to acquire knowledge about health, which in turn raises awareness and encourages behavior modification. To give an example of the

⁴² A side event aimed at discussing cooperation and collaboration in order to achieve UHC around the world with the prospect of the UN General Assembly High-Level Meeting on UHC in 2023, in which year Japan will take on the G7 presidency.

⁴³ The period after childbirth in which the woman recovers to a similar condition before pregnancy, usually around one to two months after birth.

concrete assistance, the MCH Handbook is widely used throughout the country in Indonesia as a result of Japan's cooperation. Moreover, among the countries promoting the use of the MCH Handbook, including Indonesia, Kenya, Tajikistan, Cambodia, Madagascar, Timor-Leste, Laos, and Papua New Guinea, there have been sessions to share their experiences and learn from each other.

Japanese NGOs have also worked in the area of health and medical care using the Grant Assistance for Japanese NGO Projects scheme. In 2021, for example, AMDA Multisectoral & Integrated Development Services (AMDA-MINDS), a Japanese NGO, has built healthcare facilities, provided medical equipment and supplies, provided training for medical personnel to develop capacity, and conducted activities to raise awareness of health-related knowledge among the local residents in Dang District, Nepal in order to reduce maternal and child health disparities.

Japan works with development partners, such as the United Nations Population Fund (UNFPA), the International Planned Parenthood Federation (IPPF), and the World Bank, to promote maternal and child health that includes sexual and reproductive health services, and thereby improving the health of a greater number of women and children. Japan also contributes to increasing vaccination rates in developing countries through Gavi, the Vaccine Alliance, ⁴⁴ and bilateral assistance (see also Part I for the activities of Japanese UNFPA personnel and COVID-19 vaccine support through the COVAX Facility).

In addition, the Asian Development Bank (ADB) raises the following three pillars of cooperation between the ADB and Japan to achieve UHC in the Asia-Pacific region, positioning "health" as one of the key priority sectors in its Strategy 2030: (i) building an institutional framework, (ii) accelerating human resources development, and (iii) investing in infrastructure. In April 2021, Japan began contributing to the ADB's Japan Trust Fund for the purpose of providing technical assistance and small grants to support efforts based on these three pillars.

■ Strengthening Response Capacity, Prevention Measures, and Preparation for Public Health Emergencies

Japan has provided support for the health and medical systems in countries in Southeast Asia and Africa based on the view that building a sustainable and resilient health system is crucial to controlling infectious diseases. This support includes strengthening the capacity of prevention, preparedness, and response to public health crises through the development and creation of networks of core medical facilities and support for human resources development of medical workers. Japan also

provides assistance in a wider range of areas, including development of water and sanitation infrastructure such as water supply and sewage systems and food security enhancement, to create a society that is more resilient to infectious diseases (see Part I for bilateral assistance on COVID-19 countermeasures).

Japan also provides assistance through the UN and international organizations, including contributions to the WHO Health Emergencies Programme* and the Contingency Fund for Emergencies (CFE)* during the response to the spread of the Ebola virus disease that has continued in the Democratic Republic of the Congo since 2018, and the response to the COVID-19 pandemic in 2020 and 2021. Furthermore, in 2021, Japan provides assistance for strengthening capacities in preparedness and responses against infectious diseases in developing countries, including through the additional contribution of ¥5.4 billion to funds such as the Health Emergency Preparedness and Response Multi-Donor Trust Fund (HEPRTF) launched in cooperation between Japan and the World Bank Group in 2020.



A discussion on the quality improvement of nursing education at a nursing college in Bangladesh

■ Responding to Antimicrobial Resistance (AMR)

Antimicrobial resistance (AMR) ⁴⁵ is a serious threat to public health, and in recent years, more and more countermeasures against AMR have been taken. In order to advance measures against AMR, Japan promotes the "One Health Approach" for those who are engaged in the field of health concerning humans, animals, and the environment to work together on efforts. Based on the agreement at the G20 Osaka Summit to promote the "One Health Approach," in 2019, Japan announced that it would contribute approximately ¥1 billion to the Global Antibiotic Research & Development Partnership (GARDP), which promotes research and development for new antibiotics and diagnosis development. Japan exerts leadership for AMR measures including through

⁴⁴ See the glossary on page 8.

⁴⁵ Pathogenic microorganisms, including bacteria and viruses, gaining resistance to antimicrobials such as antibiotics and antiviral drugs, which causes the drugs to lose sufficient efficacy.

Japan's Efforts for Achieving UHC

—Tokyo Nutrition for Growth Summit 2021—

● The COVID-19 Pandemic and UHC

In response to the global spread of COVID-19, it is important to achieve universal health coverage (UHC), which is based on the concept of “human security,” to “leave no one’s health behind.” This ensures that all people can receive effective and quality health services at an affordable cost.

Based on this approach, Japan has been providing approximately ¥340 billion (approximately \$3.1 billion) since immediately after the COVID-19 outbreak, both through bilateral assistance and international organizations. With an additional pledge made in June 2021 to provide \$800 million to the COVAX Facility, Japan will extend a total of ¥430 billion (approximately \$3.9 billion) of assistance (See Part I regarding Japan’s assistance against COVID-19).

Japan is also working on generating an enabling environment for health security across broader sectors, in addition to enhancing the ability to respond to COVID-19, centered around development and equitable access to vaccines, etc., as well as strengthening health systems to prepare for future health crises.

● Tokyo Nutrition for Growth Summit 2021

Nutrition is fundamental for supporting UHC. Nutrition improvement is part of Goal 2 of the Sustainable Development Goals (SDGs), and is deeply linked to other 12 goals. It is connected not only to the health sector but also to numerous other sectors, including agriculture, distribution, water and sanitation, and gender, therefore, it is essential to promote nutrition improvement in collaboration with each of these sectors for achieving the SDGs. A swift response is required as malnutrition becomes all the more serious, especially among socially vulnerable people such as children of poor families who cannot receive school meals due to school closures, while COVID-19 has led to a downturn in global socio-economic circumstances.

On December 7 and 8, the Government of Japan hosted the Tokyo Nutrition for Growth Summit*¹ 2021. At the Summit, participants discussed focusing on five thematic areas: (i) Health, (ii) Food, (iii) Resilience, (iv) Accountability, and (v) Financing, considering the worsened state of nutrition globally due to COVID-19, as well as the issue of the double burden of malnutrition, namely the co-existence of undernutrition that hinders growth and overnutrition that causes lifestyle-related diseases, which are being experienced across both high-income or resource-limited countries.

The Summit was attended by leaders and ministers from approximately 30 countries, heads of international organizations such as UN Secretary-General Guterres, the World Bank President Malpass, and WHO Director-General Tedros, and representatives from civil society organizations,



Prime Minister Kishida giving a speech (Photo: Cabinet Public Affairs Office of the Government of Japan)

the private sectors, and academia. (The Summit was held in a hybrid format that combines on-site participation of domestic guests and online participation from overseas.) Participants engaged in a broad range of discussions concerning nutrition improvement for people around the world, and deepened their common understanding of the direction of future actions. Over 390 commitments (expressions of political and financial intent) from numerous stakeholders were submitted, and the Tokyo Compact on Global Nutrition for Growth was issued as an outcome document, indicating the direction for the international society to improve nutrition.

From Japan, Prime Minister Kishida delivered an opening speech, and Foreign Minister Hayashi made a welcoming speech. In his speech, Prime Minister Kishida announced that Japan will provide nutrition-related assistance to the world, which will amount to over ¥300 billion, over the next three years. Foreign Minister Hayashi pointed out all stakeholders, including governments of both high-income and resource-limited nations, private sector entities, civil society, and academia, need to be united in addressing this important issue, and that each of us needs to steadily fulfill the commitments we have made.

Japan will make continuous efforts to provide such support to achieve UHC.

*1 The London Olympic and Paralympic Games took place in 2012. Taking the opportunity presented by this international sports festival, the Nutrition for Growth Summit was held for the first time in London in 2013 with the aim of considering the issue of nutrition on a global scale. Japan held the Nutrition for Growth Summit as the host country of the Tokyo Olympic and Paralympic Games.

Zambia

(1) Project for Upgrading of Lusaka Health Centres to District Hospitals (Phase 1, Phase 2),
 (2) Project for Strengthening Management Capacity of the First Level Hospitals in Lusaka District
 (1) Grant Aid (Phase 1: 2013 – 2016, Phase 2: 2017 – 2021), (2) Technical Cooperation Project (May 2021 – May 2026)



Mr. NORIZUKI, a Japanese expert, working with local infection control officials to give a demonstration of putting on and removing personal protective equipment (PPE) at the obstetrics ward of Chilenje Hospital, which has become a hospital dedicated for COVID-19 treatment (Photo: JICA)

In Lusaka, the capital of Zambia, there is a lack of Level 1 hospitals^{*1} capable of performing basic surgical operations and exams despite the rapidly growing need for medical care due to rapid population growth and urbanization. This means that the university hospital and other high-level medical institutions are obliged to carry out basic surgical operations, causing them to become chronically congested and unable to deliver adequate medical care. Moreover, the quality of operational management and services at Level 1 hospitals has also become a challenge.

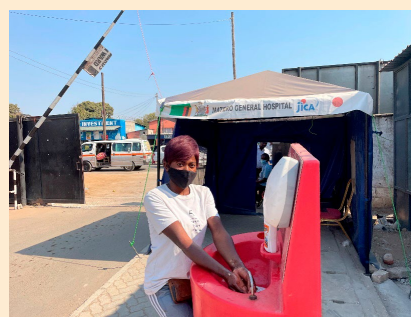
Therefore, from 2013 to 2021, Japan carried out infrastructure developments through grant aid by constructing hospital wards and providing medical equipment to upgrade five health centers^{*2} located in the center of high-density residential areas in Lusaka, aimed at upgrading these centers into Level 1 hospitals with inpatient facilities that are capable of performing basic surgical operations and cesarean sections.

As a result, two Level 1 hospitals were opened in 2016, enabling residents to receive medical care services at their local hospitals. The number of cesarean sections performed and the number of inpatients admitted to the adult wards of the hospitals have increased from 0 (in 2012) to 1,396 operations and 1,757 patients (in 2019) respectively. Furthermore, these hospitals are now able to manage basic surgical operations and exams, the percentage of patients referred to the university hospital has decreased from 24.7% (in 2012) to 15.9% (in 2019), which has helped to alleviate

congestion at the university hospital. Similar effects are expected at the other three hospitals, where construction of the buildings was completed in 2021.

In May 2021, Japan also launched a technical cooperation project that is providing technical assistance such as the improvement of service quality and capacity building in hospital operational management. The project is also providing support for human resources development to ensure that the Level 1 hospitals in the district provide high quality medical care and will be chosen by local residents.

Japan has increased the number of hospitals providing quality medical care through its 13 years of assistance in both infrastructure development and human resources development. Going forward, Japan will continue to cooperate with the people in Zambia to achieve Universal Health Coverage (UHC) across Africa as expressed at the Tokyo International Conference on African Development (TICAD).



Instruction has also been provided to hospitals on enforcing temperature checks and handwashing for all visitors before entering hospitals, with the aim of making hospitals resilient against COVID-19 (Photo: JICA)

^{*1} Healthcare services in Zambia are categorized by facility level into six grades namely, health posts, health centers and hospitals from Level 1~Level 4.

^{*2} The Project for Upgrading of Lusaka Health Centres to District Hospitals developed facilities and medical equipment at two health centers (Matero and Chilenje) in Phase 1, and at three health centers (Chipata, Kanyama and Chawama) in Phase 2.

participation in the AMR leadership group. In 2021, Japan contributed approximately ¥200 million to GARDP.

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

SDGs target 3.3 sets out to end epidemics of the three major infectious diseases by 2030. Japan makes strong efforts to support measures against the three major infectious diseases and strengthen health systems through the “Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund).”⁴⁶ Since its establishment at the end of December 2021, Japan has contributed approximately \$3.46 billion to the Global Fund. Furthermore, Japan makes it possible to supplement the efforts of the Global Fund through bilateral aid in order to ensure that measures against

these three major infectious diseases are implemented effectively. Japan also strives to strengthen mutual cooperation on enhancing health systems, community empowerment, and policies for maternal and child health in those countries.

Japan provides assistance such as spreading knowledge to prevent new infections and promoting testing and counseling as bilateral assistance for HIV/AIDS countermeasures. In 2021, JOCVs continued to engage vigorously in the activities related to the disease, especially in Africa. These activities include spreading knowledge on prevention of HIV/AIDS and promoting understanding of the disease among as many people as possible and providing care and support for people infected by HIV/AIDS.

With regard to tuberculosis, based on the “Stop TB

⁴⁶ Established in 2002 based on the agreement at the G8 Kyushu-Okinawa Summit held in 2000.



An equipped mobile medical vehicle, which was provided through Grant Assistance for Grass-Roots Human Security Projects, visiting parks in Biblían City, Cañar Province, Ecuador to administer vaccines to the citizens

Japan Action Plan,” which was revised in 2021, Japan engages in reducing the annual number of deaths from tuberculosis in developing countries, particularly in Asia and Africa. These efforts aim to achieve a 75% reduction of the number of deaths from tuberculosis (compared to 2015) and a 50% reduction in tuberculosis incidence (compared to 2015, fewer than 55 cases per 100,000

people) by making use of Japan’s own experience and technology to take measures against tuberculosis through a public-private partnership (see “Project Introduction Column” on page 58).

In addition to these efforts, with regard to malaria, one of the major causes of infant mortality, Japan provides assistance for anti-malaria countermeasures such as initiatives through the strengthening of local communities in Myanmar and Solomon Islands. Through contributions to the Global Fund, Japan also takes measures against malaria worldwide, including in the Greater Mekong Subregion. ⁴⁷

■ Polio

Although polio is on the brink of being eradicated, Japan has worked mainly in cooperation with UNICEF to provide support for its complete eradication with a focus on countries where cases of infection are still being identified (polio-endemic countries: Afghanistan and Pakistan). In August 2020, Nigeria, the last polio-endemic country in Africa, was certificated to have had no cases of wild polio for the past three years, and Africa was

Public nomination

30 African Countries*¹

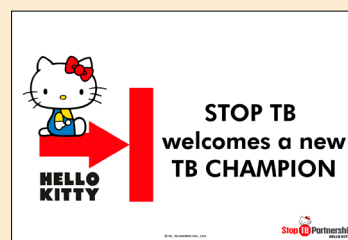
Pediatric Drug-Resistant Tuberculosis (DR-TB) Initiative
Stop TB Partnership’s Global Drug Facility (April 2019 – September 2020)



Across the world, each year, approximately 25,000 children under the age of 15 develop drug-resistant tuberculosis (DR-TB), which is difficult to treat with existing antibiotics. According to the World Health Organization (WHO), a total of 12,219 children*² have undergone treatment for DR-TB since 2018. However, this is merely 11% of the five-year target of “treating 115,000 children by 2022” set out by the 2018 UN High-Level Meeting (UNHLM) on the fight against tuberculosis (TB). This means that most of these children’s lives are still at risk.

In support of the Government of Japan, the Stop TB Partnership’s Global Drug Facility (STBP/GDF) launched in April 2019, a project aiming to introduce and ensure the general adoption of new child-friendly drugs (including the new Japanese drug delamanid). STBP/GDF has successfully brought down the price of pediatric drugs by increasing the number of suppliers to ensure more children in need are secured access to these drugs. As a result of this project, more

than 800 children in 30 African countries have gained access to DR-TB drugs in just over a year (by September 2020). Advocacy activities have also been rolled out to increase global awareness about the necessity to treat DR-TB in children, including mass media campaigns in which Hello Kitty has starred as the “TB Champion.”



Educational video featuring Hello Kitty as the TB Champion (<https://www.stoptb.org/advocate-to-endtb/hello-kitty>) (Photo: Stop TB Partnership)

Detecting and diagnosing more children affected by DR-TB and providing appropriate treatment remain essential in the fight against DR-TB. At the same time, the global COVID-19 pandemic has shown that increased multi-sectoral collaboration is critical in saving lives. Therefore, the Stop TB Partnership is committed to continuing its efforts and supporting the treatment of more and more children with DR-TB through cooperation and partnerships with various governments, multilateral organizations, and others.



A child taking treatment drugs at University College Hospital (UCH), University of Ibadan, Nigeria (Photo: Stop TB Partnership)

*1 The 30 countries are Angola, Botswana, Burkina Faso, Cameroon, Côte d’Ivoire, Chad, Democratic Republic of the Congo, Eswatini, Ethiopia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mali, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe.

*2 Estimate from the Global Tuberculosis Report 2021.

⁴⁷ Cambodia, Laos, Myanmar, Thailand, Viet Nam, and parts of China in the Mekong River Basin.

declared to be wild polio-free. Japan continues to provide a wide range of assistance to Nigeria, including support for vaccine procurement, development of cold chains ⁴⁸ including solar-powered refrigerators for transport and storage, and human resources development for polio researchers through JICA training programs.

■ Neglected Tropical Diseases (NTDs)

Parasitic and bacterial infections, such as Chagas disease, Filariasis, and Schistosomiasis, are known as “neglected tropical diseases (NTDs),” and have infected more than 1 billion people worldwide, causing major socio-economic losses to developing countries. Since infectious diseases can have an impact beyond national borders, the international community must work as one to combat them. Thus, Japan also cooperates closely with all the relevant countries and international organizations on countermeasures against NTDs.

Since 2000, Japan has provided support against Filariasis for Pacific Island countries through technical cooperation. The Project for Elimination of Lymphatic Filariasis in the Pacific Region supports mass drug administration in the target countries with public-private partnership through the dispatch of Japanese experts to provide technical instruction, and utilization of drugs

provided free of charge by the Japanese pharmaceutical company Eisai. This long-term support has proved successful, with eight of 14 Oceanian countries (Cook, Marshall, Nauru, Niue, Palau, Solomon Islands, Tonga, and Vanuatu) having eliminated Filariasis. Continuing from this, in October 2019, the WHO declared Kiribati to have eliminated lymphatic Filariasis. Through the dispatch of experts and other means, Japan will continue to support plans for the elimination of Filariasis in Pacific Island countries.



A New Ireland Provincial Health Authority staff member in Papua New Guinea checking a child for filarial infection (Photo: JICA)



Glossary

WHO Health Emergencies Programme

The WHO Health Emergency Programme is a part of the WHO that responds to health emergencies. It evaluates the health emergency response capacity of countries, supports drafting of plans, and monitors new and ongoing health emergency situations. It also provides health services to save lives in countries where health emergencies are occurring.

Contingency Fund for Emergencies (CFE)

An emergency fund for responding to outbreaks and states of emergency established by the WHO in 2015 based on its reflection concerning the Ebola virus outbreak in West Africa in 2014. Decision-making regarding contributions is entrusted to the WHO Director-General, and it is possible to provide funding within 24 hours of the decision being made.

⁴⁸ See 2 on page 2.

Aiming to Improve Medical Skills with Japan's Quality, Easy-to-Use Teaching Materials!

—Contributing to the spread of simulation-based medical education in Ecuador—



Simulation-based education*¹ for learning the basics of medical practice through practical training has become a new global trend in the medical education sector, and its importance is recognized in Ecuador as well. The Faculty of Medical Sciences of the Central University of Ecuador (UCE) had prepared dedicated classrooms and equipment for this. However, as computer-controlled high-performance equipment had been introduced, it had become difficult for the University to do maintenance work on its own and update the dedicated software. Furthermore, they had problems such as a limited number of students who could participate in simulation practice at one time. UCE therefore asked Japan for support.

Around the same time, Mr. TAKAYAMA Toshiyuki, President of Kyoto Kagaku Co., Ltd. (Kyoto Prefecture), a manufacturer of medical simulators, visited Ecuador for a market survey of Latin America and visited UCE. "This encounter was truly miraculous. We visited UCE by pure chance, but it was at exactly the right time when our products were needed," said Mr. Takayama.

Mr. Takayama and employees of Kyoto Kagaku travelled back and forth between Ecuador and Japan several times in a period of just one month after receiving the request for support from UCE and developed a plan for a project while consulting with the JICA Ecuador Office as well. Subsequently, the company made an application to JICA's SDGs Business Supporting Surveys, and the proposal was adopted. Then the Project for Strengthening Human Resources for Universal Health Coverage through Simulation-Based Medical Education was initiated from December 2019 (completion planned for January 2023).

Under this project, Kyoto Kagaku works with UCE as the counterpart institution to carry out simulation-based education verifications tailored to the local circumstances, using 48 types of medical and nursing education simulators

containing 104 items made by Kyoto Kagaku (including physical examinations, medical procedures and care, perinatal and pediatric medical care, and disaster first aid and medical care). Immediately after the start of the project, COVID-19

countermeasures such as curfew restrictions were taken, and face-to-face classes were cancelled at UCE. Nevertheless, the demonstration event upon arrival of the equipment was broadly covered by the media, and expectations on the Ecuadorian side are growing.

Simulators of Kyoto Kagaku are unique in that they recreate the feeling of human skin by special materials and they are anatomically accurate. "When the UCE professors first touched the simulators, they noticed its high quality and expressed their excitement. It is also easy to maintain, as it is possible to replace deteriorating parts, for example injection pads where the needles for injections are inserted. They are suited to local conditions because UCE can purchase a variety of simulators as each one is not too expensive, and many students can practice at once," said JICA Ecuador Office staff member Andrés Mencías.

Furthermore, as a unified curriculum for simulation-based education has not been developed in Ecuador, this project also supports the preparation of such curriculum. The preparation of a unified curriculum using Kyoto Kagaku's simulators is expected to improve skills and provide a high level of practical training at 22 university medical schools in Ecuador, including UCE.

Concerning the future prospects, Mr. Takayama said, "We would like to improve the level of medical education in Ecuador as a whole with this project as a starting point. Furthermore, for Kyoto Kagaku as well, the project offers an opportunity to expand our business in Latin America, where we had no previous track record."

The dream of Mr. Takayama and Kyoto Kagaku grows, hoping that the success of simulation-based education in Ecuador will lead to the improvement of medical education levels throughout Latin America.



Practical study on tracheal intubation by medical students of the Faculty of Medical Science of UCE (Photo: Kyoto Kagaku Co., Ltd.)



The Rector of UCE and the Director of the Medical and Robotics Simulation Clinic testing a heart disease examination simulator at the press conference venue when the equipment arrived (Photo: Kyoto Kagaku Co., Ltd.)

*1 This refers to using expertly-developed medical simulators to learn techniques such as injection, suturing, and medical examinations in a form close to actual practice in order to train doctors, nurses, and other medical workers. It has drawn interest as a way to provide safe and secure medical services and also for the fact that, after the spread of COVID-19, direct contact with patients has become difficult.

(2) Water and Sanitation

Water and sanitation are vital issues linked to human life. Throughout the world, approximately 2.2 billion people are not provided with safely-managed drinking water, and 4.2 billion people cannot use safely-managed sanitary facilities such as toilets. Moreover, in developing countries where piped water is not widely available, women and children sometimes spend many hours fetching water, which deprives children of opportunities for education and women of engaging in society. Furthermore, an unstable supply of water has a negative impact on healthcare and agriculture. SDG 6 sets forth the target “Ensure availability and sustainable management of water and sanitation for all.”



The “Achhi Aadat (Good Habit in Hindu)” Campaign, a hygiene awareness campaign that includes hand washing, was implemented in Uttar Pradesh State, India. Children washing their hands with products that can be used to effectively prevent infections even in households without water supply or other hand-washing facilities. (Photo: JICA)

Japan's Efforts

Japan has the top cumulative track record in the world in the fields of water and sanitation support since the 1990s.

In 2021, Japan implemented projects for the development and expansion of piped water in Cambodia, Indonesia, Laos, Viet Nam, and other countries. For example, Japan provides Grant Aid to internally displaced persons and surrounding communities in conflict-affected ethnic minority areas in Rakhine, Kachin, and the northern Shan states of Myanmar in cooperation with UNICEF. It aims to improve health environments, ensure access to safe water, improve hygiene and sanitation, and improve learning environments. In addition, in Malawi, Japan implements a technical cooperation project to strengthen the capacity of the Lilongwe Water Board to improve water use efficiency. The Yokohama Waterworks Bureau provides cooperation, and Yokohama's expertise in water supply operations are utilized to solve Malawi's water problems (see “Master Techniques from Japan to the World” on page 62 for details).

Efforts for the improvement of the water environments

in developing countries in cooperation with Japanese and local private companies and organizations are also being made around the world. For example, in Indonesia in Southeast Asia, a verification survey with the private sector for disseminating Japanese technologies for automatic regenerating activated carbon wastewater purification systems was implemented with a view to promoting the use of regenerated water and industrial wastewater treatment, utilizing JICA's SDGs Business Supporting Surveys. The project is expected to solve environmental problems such as river pollution caused by insufficient treatment of dye effluent and ground subsidence following excessive ground water intake in the country, where the textile industry thrives. The project has produced positive results, including the sale of two large-scale purification systems in the country.

In order to overcome the lack of local information and knowledge with regard to the problem of serious water contamination in many Asian countries, the Ministry of the Environment (MOE) implements the Water Environment Partnership in Asia (WEPA). With the cooperation of the 13 participating countries ⁴⁹ from Asia, WEPA aims to enhance water environment governance in Asia through building human networks, gathering and sharing information, and capacity building. In March 2021, the 16th WEPA Annual Meeting was held online. It focused on the “Current Status and Challenges of Domestic Wastewater Treatment,” and the participants shared information on progress made on water environment governance in each country and engaged in an active exchange of views. Moreover, to contribute to achieving “halving the proportion of untreated wastewater” that is raised in Target 6.3 of the SDGs, Japan introduces its advanced septic tank technology, legislative systems, etc., mainly for Asian regions. The 8th and 9th workshops were respectively held online in January and November 2021. During the workshops, presentations and active discussions were



Refugees from South Sudan drawing water at a water supply facility in a refugee settlement in northern Uganda. They also take the initiative to improve water supply services in the settlements (Photo: UNHCR) (see also “Stories from the Field” on page 47).

⁴⁹ The 13 countries are Cambodia, China, Indonesia, Republic of Korea, Laos, Malaysia, Myanmar, Nepal, the Philippines, Sri Lanka, Thailand, Viet Nam, and Japan.

Team Yokohama's Techniques Help Upgrade Malawi's Human Resources in the Tap Water Sector

—Solution of the Non-Revenue Water problem and improvement of water supply services—



In Lilongwe City, the capital of Malawi, the water demand is increasing due to population growth, but the amount of tap water supplied within the city is not keeping pace with that demand. Furthermore, the proportion of Non-Revenue Water (NRW)*¹ is extremely high, which has become a large problem.

For that reason, Japan commenced the “Project for Strengthening the Capacity of Non-Revenue Water Reduction for Lilongwe Water Board” from 2019, in response to a request from the Government of Malawi, and an employee of the Yokohama Waterworks Bureau has been dispatched as one of the JICA experts. Since its first participation in a JICA survey mission in 1977, the Yokohama Waterworks Bureau has offered technical guidance through its employees dispatched to Africa and training in Japan over many years. Its support implemented to date to improve water supply administration in African countries has been highly appreciated both domestically and internationally.

This project implements fact-finding surveys and analyses of NRW, develops effective data-based NRW reduction plans, and provides on-site work guidance for NRW survey methods and reduction, among other efforts, for the Lilongwe Water Board (LWB). In 2020, in response to the spread of COVID-19, the experts had to return to Japan temporarily, however, they conducted a residual chlorine concentration distribution survey*² as a COVID-19 countermeasure and provided technical guidance remotely based on the survey results. The Government and people of Malawi have high expectations for the project, and in interviews with the residents of the district where this project was implemented, they expressed a desire to reduce water leakages and to use the tap water from LWB rather than well water.

“According to the analysis implemented together with the LWB engineers, NRW accounted for as much as 40% of the total water supplied in Lilongwe, and water leakages accounted for 25%. LWB’s conventional measures only repaired leaks that appeared above ground and it did not have the techniques or equipment to detect water leakages underground. In this project, we are providing guidance on



Mr. Sekimoto providing guidance on technology for detecting underground water leakages (Photo: JICA)

skills for detecting and repairing underground water losses,” said JICA expert Mr. ITAYA Hidefumi from the Yokohama Waterworks Bureau, talking about the situation at the time and the current initiative.

Conducting the work from surveying to repairing together with JICA experts, and sharing the experience on “how to reduce NRW” has served as a valuable guide to the future for LWB. JICA expert Mr. SEKIMOTO Shinichi, who is providing guidance in Lilongwe City said, “The City has hard ground, so laying water pipes underground is difficult, and they are sometimes exposed above the ground, which is the cause of water leakages and water theft. Moreover, there were many issues such as a lack of techniques and equipment for water leakage repairs. During the provision of technical guidance, we have accumulated successful experiences together. As a result, the LWB employees are now getting a new mindset that they can reduce NRW by themselves with their ingenuity.”

“There is no end to initiatives for NRW measures, just as in Japan. For example, even if a water pipe with a water leakage is repaired once, still the pipe will get older, and the number of water leakages will increase again. That is why it is truly important that LWB is able to continue the activities on its own after we return to Japan, and we are currently carrying out the technical transfers while being very conscious of sustainability,” said Mr. Itaya.

The experience and skills of local public entities and other organizations in Japan gained through the accumulation of steady daily efforts are greatly contributing to the improvement of water services and people’s water and hygiene environment in Malawi.



Mr. Itaya giving guidance on the development of an NRW reduction plan (Photo: JICA)

*1 Unbilled water that is caused by water leakage due to aging water supply and distribution pipes, illegal water theft, and faulty water meters.

*2 The survey was implemented because chlorination of the water supply is an effective measure against COVID-19. “Residual chlorine” refers to how the chlorine agent infused for sterilization in the process of making tap water at water purification plants and elsewhere remains in the tap water as chlorine ions. The chlorine ions kill viruses and disease-causing bacteria, so management to ensure that they exist in the tap water at all times is important.

held on themes related to the decentralized wastewater treatment system “Johkasou” against water-borne disease and natural disasters, as well as common issues of decentralized wastewater treatment systems such as cleaning up, transportation, treatment and disposal of sludge. Japan co-hosted webinars in Laos in February 2021, and in Sri Lanka and Cambodia in March, with the respective local governments to implement proposal activities for both physical and non-physical aspects of septic tanks and to promote the spread of septic tanks in developing countries.

(3) Quality Education for All

There are as many as approximately 58 million children who cannot go to elementary school worldwide. When including secondary school, it is estimated that there are approximately 256 million out-of-school children (16.8% of the total).⁵⁰ In particular, the percentage of children who cannot go to school has been increasing since 2000 in Sub-Saharan Africa. Moreover, many children have been impacted by school closures due to the spread of COVID-19. Above all, children with disabilities, children of minority ethnic groups or those in disadvantaged communities, refugee and displaced children, and those living in remote areas are at the greatest risk of being left behind, and there are further concerns surrounding the impact of school closures on malnutrition, early marriage, and gender inequality.

SDG 4 has been set up to “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all,” and the international community works on achieving the goal of “Education 2030 Framework for Action.”⁵¹

Japan's Efforts

Japan provides developing countries with a broad range of support, including the enhancement of basic education,⁵¹ higher education, and vocational training.

Based on the “G20 Initiative on Human Capital Investment for Sustainable Development: Quality Education to Create an Inclusive, Resilient, and Innovative Society” (G20 Osaka Summit 2019), Japan promoted its “Education x Innovation” initiative to support at least approximately nine million children and youths during the three-year period between 2019 and 2021. In order to allow all children to complete quality elementary and secondary education by 2030, it is essential to

encourage innovation to accelerate assistance. Through this initiative, Japan will further strengthen support for education that fosters basic knowledge, STEM education,⁵² development of e-learning, and more.

Also, Japan contributed a total of approximately \$37.71 million from 2008 to 2021 to the Global Partnership for Education (GPE).⁵³ In partner countries of the GPE, the number of children supported by the fund since 2015 has amounted to approximately 32.7 million, and three out of four have finished elementary education. At the Global Education Summit held in July 2021, Japan pledged to contribute more than \$1.5 billion over five years from 2021 to 2025 to support the fields of education, including continued support for the GPE, as well as for the education and human resources development of 7.5 million girls in developing countries.



Children learning to read and write through fun and play during the technical cooperation “School for All” project in Madagascar (Photo: JICA)

At TICAD7 held in 2019, as initiatives for education and human resources development in Africa, Japan announced its intention to provide quality education to three million children through measures such as science and mathematics education and improvement of the learning environment, as well as develop 5,000 highly-skilled people for STI through assistance for the Egypt-Japan University of Science and Technology (E-JUST)⁵³ and Jomo Kenyatta University of Agriculture and Technology in Kenya. It was also announced that E-JUST would receive 150 African students, and 31 African students were newly admitted in 2020.

Moreover, with a focus on Niger and other West African countries, Japan has implemented the “School for All” project since 2004, which aims to build relationships of trust between schools, parents and guardians, and local residents, as well as improve the education environment

⁵⁰ Pages 209, 413, and 427 of the “Global Education Monitoring Report 2021.” <https://unesdoc.unesco.org/ark:/48223/pf0000379875>

⁵¹ The educational activities designed to enable individuals to acquire the knowledge, values, and skills necessary to live. It mainly refers to elementary education, lower secondary education (equivalent to Japanese junior high schools), pre-school education, and adult literacy education.

⁵² STEM is an acronym for science, technology, engineering, and mathematics, and refers to these four educational fields.

⁵³ Established based on an agreement (bilateral agreement) between the Government of Japan and the Government of the Arab Republic of Egypt to establish the Egypt-Japan University of Science and Technology (2009). Based on the agreement, Japan supported the establishment of E-JUST and its operation as a university that provides graduate school, research-centered, pragmatic, and international-standard education for a small number of students, which is characteristic of Japanese-style engineering education. Japan is currently implementing technical support aimed at establishing E-JUST's foundation as a top-level research university in Egypt in order for E-JUST to develop human resources in the field of industry and science and technology in the Middle East and Africa.

for children. In cooperation with the World Bank, the GPE, and others, Japan spreads the project throughout the targeted African countries. 70,646 elementary schools in eight countries have introduced the program as of December 2021.

In addition, in Egypt, the introduction of Japanese-style education at local schools has been promoted since February 2017 under the Egypt-Japan Education Partnership (EJEP). 48 “Egypt-Japan Schools” were opened by October 2021. Furthermore, “Tokkatsu-plus” a model for Japanese-style education has been introduced, and primary and junior high students at above-mentioned schools are engaged in special activities, such as cleaning, chore duties, and class meetings, as the core for holistic education that aims to build harmonious character, including sensitivity and morality. Japan provides support for management needed to conduct such special activities as well as support to introduce learning through playing at kindergartens.

In the Asia-Pacific region, Japan provides support for organizing the Asia-Pacific Meeting on Education 2030 (APMED2030) annually through the contribution to a funds-in-trust within the United Nations Educational, Scientific and Cultural Organization (UNESCO). Japan also supports initiatives toward the achievement of SDG 4 including through the quality improvement of education, enrichment of early childhood education, spread of non-formal education, and increasing the teaching capacity of teachers. Moreover, Japan supports human resources development in developing countries by engaging in efforts to strengthen networking among higher education institutions between Japan and ASEAN, collaborating with the industrial sector, participating in joint research projects with neighboring countries, accepting international students to Japanese institutions of higher education and other institutions, and a wide range of other measures.

■ Promoting Education for Sustainable Development (ESD)

“Education for Sustainable Development^{*}: Towards achieving the SDGs (ESD for 2030)” began in January 2020 with UNESCO as the leading organization. ESD is education to contribute to the realization of all SDGs by fostering the builders of a sustainable society, and as a proposing country of ESD, Japan continues to engage in the promotion of ESD as well as play a significant role in its global advocacy and enhancement through the funds-in-trust to UNESCO. In addition, through the funds-in-trust, Japan actively promotes ESD by implementing the “UNESCO-Japan Prize on Education for Sustainable Development” together with UNESCO, which awards organizations and groups that conduct excellent initiatives toward putting ESD into practice, and has been awarded to 18 organizations to date.



Children learning in an expanded classroom built through Grant Assistance for Grass-Roots Human Security Projects at a kindergarten in Dak Lak Province, Viet Nam

Viet Nam

Building System of Training Course of Inclusive Education for Primary School in Binh Thuan Province and An Giang Province (Phase 3) Grant Assistance for Japanese NGO Projects (March 2019 – March 2020)



In Viet Nam, since there is only one special-needs school in each province,^{*1} and its capacity is limited, children with disabilities are unable to attend school in many cases. Some of those children attend public primary schools, and this is encouraged by the Government of Viet Nam. However, it turned out that teachers at these schools have a limited understanding of disabilities, resulting in confusion in the field of education. Therefore, through the scheme “Grant Assistance for Japanese NGO Projects,” NPO Asia Rainbow established a training system on inclusive education^{*2} for teachers at public primary schools in the two provinces of Binh Thuan and An Giang, located in southern Viet Nam, to enable children with disabilities to receive appropriate education.



An inclusive class at a primary school in Binh Thuan (Photo: NPO Asia Rainbow)

In this project, Japanese experts carried out training for 60 key teachers^{*3} in Binh Thuan and An Giang provinces on inclusive education, including methods of creating individual education plans (IEPs)^{*4} and other areas. After that, the key teachers returned to their respective provinces

to provide training for other teachers in each district, which enabled a framework for all teachers across the two provinces to receive training on inclusive education. The project also provided counselling to a total of 600 children with disabilities, their parents, and teachers and strived to understand the current situation accurately while undertaking these activities.

As a result, the primary school enrolment rate for children

with disabilities rose from 38% to 87% in An Giang, and from 68% to 95% in Binh Thuan respectively after the implementation of the project. Responses have also been heard from the field of education such as “The instruction given by the teachers who received training has helped children

with disabilities to learn in a more relaxed way than before. Previously, there were cases of repeating a grade, but now they have all managed to move up to the next grades.”

In this way, Japan contributes to providing educational opportunities to children with disabilities so that they can expand their future opportunities.



A lesson by a teacher who has received training on inclusive education at a primary school in Binh Thuan Province (Photo: NPO Asia Rainbow)

*1 An administrative unit of Viet Nam, one level above a “district.”

*2 A system that respects human diversity and allows persons with and without disabilities to learn together.

*3 Instructors representing each province, selected by the Department of Education and Training (DOET) of each province of Viet Nam from among its primary school principals, vice principals, and DOET personnel.

*4 Education plans whose objective is to carefully grasp the needs of each child with a disability and respond appropriately from an educational perspective.



Glossary

Education 2030 Framework for Action

The Education 2030 Framework for Action succeeds the EFA Dakar Framework for Action aimed at achieving education for all, adopted at the World Education Forum in Dakar, Senegal in 2000. It was adopted at the Education 2030 High-Level Meeting, which was held to coincide with the UNESCO General Conference in 2015.

Global Partnership for Education (GPE)

GPE refers to an international partnership established under the leadership of the World Bank in 2002, which supports the education sector in developing countries. Its members include developing countries, donor countries and organizations, civil society, and private-sector corporations and foundations. It was renamed as GPE from Fast Track Initiative (FTI) in 2011.

Education for Sustainable Development (ESD)

ESD refers to education that fosters builders of sustainable societies. ESD was affirmed as being the key for achieving all the SDGs in the resolutions of the 72nd Session of the UN General Assembly in 2017. This was also reaffirmed in the “ESD for 2030,” which was adopted by a resolution of the 74th Session of the UN General Assembly in 2019. “ESD for 2030” is the program succeeding the United Nations Decade of Education for Sustainable Development (UNDESD) (2005-2014) and the Global Action Program (GAP) on ESD (2015-2019), and is a new international implementation framework from 2020 to 2030.

(4) Gender and Inclusive Growth

A. Promotion of Women's Empowerment and Participation

The “2030 Agenda for Sustainable Development (2030 Agenda)” (see page 27 for details) strongly and clearly express that “Realizing gender equality and the empowerment of women and girls will make a crucial contribution to progress across all the Goals and targets.” Moreover, SDG 5 seeks to “Achieve gender equality and empower all women and girls.” Gender equality and promoting women's empowerment are essential for realizing “quality growth.” For this purpose, it is important for men and women to participate equally in all phases of development cooperation and to reap the benefits equally.

For example, improving the literacy of women who have had few or no educational opportunities so far, increases their access to correct information on public health and prevention of infectious diseases such as HIV/AIDS. This leads to appropriate family planning and promotes women's social advancement and economic empowerment. Moreover, it contributes to the sustainable and inclusive economic growth of developing countries.

Japan's Efforts

In order to make the world with no human rights violations against women, Japan advances its efforts in the international community to promote gender mainstreaming ⁵⁴ and women's empowerment by setting the following three priority fields: (i) promoting women's and girls' rights, (ii) building the capacity of women and girls to reach their full potentials, and (iii) advancing women's leadership in political, economic, and other public fields.



A JOCV providing nutritional education to villagers by showing them how to make soy milk and tofu in Himachal Pradesh State, India (Photo: JICA)

In 2018, Japan contributed \$50 million to the Women Entrepreneurs Finance Initiative (We-Fi). ⁵⁵ As of June 2021, Japan has supported 11,181 women-owned/led small and medium enterprises (WSMEs) in 52 countries. Specifically, 7,069 WSMEs received financial assistance and 6,722 received training to acquire the skills and knowledge necessary for management. In addition, according to the World Bank, 70% of WSMEs in developing countries are unable to receive financial services from financial institutions or are subject to poor borrowing terms. Through We-Fi, Japan supports the promotion of the development of legal systems that are free from gender discrimination and that let women business owners have equal access to financing and markets.



Supporting the empowerment of women running small businesses in Bolivia by strengthening their digital marketing capabilities through social media and other means (Photo: JICA)

Japan also provides assistance through UN Women. Japan provided approximately \$22 million in 2020 and approximately \$21 million in 2021 to contribute to initiatives for the political participation and economic empowerment of women, the elimination of sexual and gender-based violence against women and girls, a stronger role for women in the peace and security fields, and the strengthening of gender responsive policies and budgets, among others. For example, in Turkey, Japan provided psychosocial support to 823 women in Syrian refugee camps in Istanbul and Izmir. As both the refugees and the Turkish communities that accept them are in a difficult economic situation and in light of the need for support for their economic independence, Japan provided training on career development, improved knowledge of finance and how to communicate information on social media, as well as training to acquire skills in toy production through handicrafts. Furthermore, women

⁵⁴ Integrating gender perspective into all policies, measures, and projects in order to achieve gender equality in all fields. In the field of development, it refers to the process to clarify development challenges, needs, and impacts on both men and women, at all stages of planning, implementation, monitoring, and evaluation, of all policies, measures, and projects, based on the premise that they have different impacts on men and women.

⁵⁵ The launch of We-Fi was announced at the G20 Hamburg Summit in 2018. By assisting women entrepreneurs and WSMEs in developing countries to overcome various obstacles they face such as access to finance and legal systems and regulations, this initiative aims to promote the prompt economic independence of women in developing countries and their social and economic participation, and to realize regional stability, reconstruction, and peacebuilding.

Public nomination

Ghana

(1) Assistance for Eliminating and Preventing Child Labour, (2) Data Collection Survey on Child Labour and Support for Child Labour Free Zone Pilot Activities with a Focus on the Cocoa Region

(1) ACE Funds (2009 –), (2) JICA Data Collection Survey (October 2020 – June 2022)



Around 70% of all cocoa beans imported into Japan are produced in Ghana. In Sub-Saharan Africa, where the country is located, the issue of child labor has been addressed. It is estimated that there are 160 million child laborers in the world, and around 70% of them work in the agriculture, forestry, and fisheries sectors.^{*1} It is necessary to take measures to protect and ensure the rights of children and their educational opportunities.

In response to such a situation, ACE, a Japanese NGO has implemented its area-based project in partnership with a local NGO. The project includes activities such as education and income-generation support to particularly vulnerable households, and supporting improvements of the learning environment at schools, which led to creating a model for the fundamental solution of child labor at the community level. ACE also works with Japanese chocolate companies and consumers by utilizing their donations in promoting its activities to protect children from child labor, ultimately aiming to make all stakeholders of chocolate happy.

Furthermore, as an effort to leverage the knowledge of the child labor prevention and eradication model established at the community level and extend its impact to the national level, ACE has been working with the Government of Ghana since 2018 to establish a Child Labour Free Zone (CLFZ) system.



A district-level consultation meeting to develop the CLFZ guidelines (Photo: ACE)

The development of the CLFZ system was a part of the national action plan of the Government of Ghana, aiming to make the country free from child labor.

To support the government's initiative, ACE and Deloitte Tohmatsu Consulting LLC provided comprehensive assistance to Ghana's Ministry of Employment and Labour Relations, including technical and financial support to develop "Protocols and Guidelines for Establishing Child Labour Free Zones in Ghana (Guidelines)"^{*2} in cooperation with the International Labour Organization (ILO) and other NGOs. The Guidelines went into force in March 2020. With these Guidelines, standards were established to monitor and prevent child labor on a routine basis at both the community and local government levels. It is recommended that child labor-related activities are carried out in line with these Guidelines, and it is anticipated that initiatives for eliminating child labor will spread across the whole of Ghana.

Following the introduction of the system, ACE has formed a consortium with IC Net Limited, a Japanese consultancy company, and commissioned by JICA to carry out a survey to identify problems and assistance needs in eliminating child labor with a focus on cocoa regions. Activities toward the elimination of child labor are promoted by disseminating the CLFZ guidelines, in partnership with various actors, including international organizations, industries, NGOs, and others, and with JICA's Platform for Sustainable Cocoa in Developing Countries.^{*3}

^{*1} "Child Labour: Global estimates 2020", trends and the road forward (2017–2020) (ILO/UNICEF, June 2021).

^{*2} These Guidelines define CLFZs as areas in which the prevention and resolution of child labor are making progress. The Government of Ghana approves local public entities (districts) that declare themselves as CLFZs if they fulfill requirements and are able to maintain their child labor-free status, including a child labor incidence rate of less than 10%, the existence of a child labor monitoring system at the community level, and the functioning of government services to support vulnerable households and children.

^{*3} Established by JICA in January 2020 as a platform for a wide range of stakeholders, including companies and NGOs, to share insights and collaborate, to resolve a number of challenges associated with cocoa production.

from different coexisting ethnic groups participated in workshops, short excursions, and other activities, and their awareness about the importance of peaceful coexistence and peacekeeping was raised through repeated opportunities for dialogue.

Japan considers that sexual violence in conflict cannot be tolerated. Therefore, Japan places importance on collaboration with the United Nations Office of the Special Representative of the Secretary-General on Sexual Violence in Conflict (OSRSG-SVC).⁵⁶ In 2021, Japan provided approximately \$900,000 in assistance to the OSRSG-SVC to help protect women who have experienced sexual violence in the Middle East, including Iraq, Jordan, and Lebanon, where COVID-19 was spreading, by expanding online support for female

survivors, distributing personal protective equipment for COVID-19, and other means.

Japan has also contributed €2 million in both 2020 and 2021 to the Global Survivors Fund (GSF),^{*} and as a board member, actively contributes to supporting survivors of conflict-related sexual violence in conflict-affected areas, including the Democratic Republic of Congo, Guinea, and Iraq.

Japan formulated its National Action Plan in 2015 for the implementation of United Nations Security Council resolution 1325 on Women, Peace and Security (WPS) and other relevant resolutions. Japan implements the Plan to support women in conflict-affected and fragile countries through international organizations and bilateral assistance. In terms of the framework of the

⁵⁶ Japan's efforts regarding the prevention of sexual violence in conflict can also be found on MOFA's website (https://www.mofa.go.jp/fp/hr_ha/page23e_000466.html).

G7, under the G7 WPS ⁵⁷ Partnership Initiative (2018), and since 2019, Japan has assisted its partner country of Sri Lanka with the formulation of its WPS Action Plan and has provided assistance for women's financial empowerment, including for the households of widows who have survived the 26-year internal conflict, as a project for the implementation of the Action Plan. The livelihood support provided by this partnership has been welcomed by the Government of Sri Lanka as a catalyst for economic recovery as well as a contribution to peace building and reconstruction in the region.



A woman who has successfully established her own sewing store and become financially independent as a result of the GSF's project to support survivors of conflict-related sexual violence (Photo: GSF)



Glossary

Global Survivors Fund (GSF)

The GSF was launched by Dr. Denis Mukwege and Ms. Nadia Murad, who received the Nobel Peace Prize in 2018. It aims to facilitate access to reparations and support for survivors against the backdrop that many survivors of conflict-related sexual violence have not received public reparations. The GSF conducts awareness-raising activities regarding the development of the judicial system to support and give relief to survivors. In September 2021, Japan co-hosted an online event with the GSF and other board members (including France, the Republic of Korea, and the United Kingdom) to present the activities.

B. Reducing Disparities (Assistance for People Who Tend to be in Vulnerable Situations)

Challenges such as poverty, conflicts, infectious diseases, terrorism, and natural disasters have varying impact depending on the situations that individuals are in, including their country and region, or whether they are women and/or children. In addition, the spread of COVID-19 has had a major impact particularly on the survival and livelihoods of all people placed in socially vulnerable positions. The concept of human security, which focuses on the protection and empowerment of each individual, is indispensable for the realization of a society that fulfills the principle of the SDGs, "no one will be left behind."



Japan's Efforts

Assistance for Persons with Disabilities

In order to ensure the social participation and inclusion of people in vulnerable situations in society, especially persons with disabilities, Japan's ODA pays due attention to the socially vulnerable, including persons with disabilities. Article 32 of the Convention on the Rights of Persons with Disabilities ⁵⁸ stipulates that States Parties would undertake measures for international cooperation and its promotion.

Policies for persons with disabilities cover a number of different fields, including welfare, health and medical care, education, and employment. Japan has applied the accumulated techniques and experiences in these fields to measures and policies for persons with disabilities in developing countries through ODA and NGO activities

(see also "Project Introduction Column" on page 65).

For example, Japan carefully conducts its assistance to suit various local needs through incorporating barrier-free design in the planning of railroad and airport construction, developing vocational training centers and rehabilitation facilities, providing minibuses for their transportation, and other measures (see also "Stories from the Field" on page 81). Additionally, Japan provides a wide range of technical cooperation through JICA to enhance the capacity of organizations and personnel providing assistance to persons with disabilities. These efforts include the acceptance of trainees from developing countries and the dispatch of JOCVs and experts such as physical and occupational therapists as well as social workers.



A group discussion in the framework of the "Project for the Promotion of Empowerment of Persons with Disabilities and Disability Mainstreaming" - Technical Cooperation in South Africa (Photo: JICA)

⁵⁷ G7 WPS is an abbreviation for G7 Women, Peace and Security.

⁵⁸ Japan ratified the Convention in 2014.

■ Assistance for Children

Generally, children tend to be in vulnerable situations, and today, there are many children around the world that have been placed in harsh environments due to the impact of COVID-19 in addition to conflicts, natural disasters, etc. Also, the number of child refugees and internally displaced children is rapidly increasing, and Japan is providing a variety of humanitarian and development assistance bilaterally and through international organizations (see also “Project Introduction Column” on page 67). In 2021, through the United Nations Children’s Fund (UNICEF), Japan assisted by providing supplies to prevent COVID-19 infections and technical cooperation for health workers, implementing awareness activities on infection risks, and through other support for 86 countries in Asia, the Middle East, Africa, and other regions.



A meeting to announce the entry into force of the Protocols and Guidelines for the Establishment of Child Labour Free Zones (CLFZs) in Ghana (Photo: NGO ACE) (See “Project Introduction Column” on page 67 for details on the project)

Additionally, through the Grant Assistance for Grass-Roots Human Security Projects,⁵⁹ Japan provides cooperation that directly benefits residents at the grassroots level. Under this scheme, Japan is implementing projects which contribute to improving the living conditions of children, such as the construction and refurbishment of elementary and junior high schools, provision of medical equipment to hospitals, and development of wells and water supply facilities.

For example, in Thailand, Japan currently provides cooperation for the construction of a school building for early childhood education at Nikhom 3 (Kromprachasongkhrao) School, located in Khukhan District, Sisaket Province. It is expected that this assistance will improve the learning environment for children who could not take classes in appropriate environments due to classroom shortages. In addition, in Armenia, Japan provided cooperation for the construction of a playground and exercise area at a village school for children of compulsory school age in the village of Margahovit in Lori Province. This is expected to contribute



Children eating school meals provided through Emergency Grant Aid in hurricane-affected areas in Nicaragua

to the healthy growth and development of the body and mind of the children attending the school and other children in the vicinity, as well as to the strengthening of their athletic abilities and health maintenance.

In addition, through the grant aid “Project for the Prevention of and Response to Violence against Children in Cambodia (through UNICEF),” approximately 2,600 government officials, social workers, and medical professionals received training. This training is expected to lead to a reduction in physical violence in educational settings, etc. and to improvement of the environment in which children who have suffered physical violence can easily consult with counselors.

(5) Culture and Sports

Cultural heritage that symbolizes a country can be effectively utilized as tourism resources to improve the livelihoods of the residents in the surrounding areas. On the other hand, a large number of cultural heritage sites are in danger due to the lack of funds, equipment, and technology among others, and assistance to protect such cultural heritages is required. In addition, the preservation and promotion of culture, such as invaluable cultural heritages in developing countries, should be addressed



A JOCV teaching judo in Madagascar (Photo: KUNO Shinichi/JICA)

⁵⁹ Details of the program and past achievements can be found on MOFA’s website (<https://www.mofa.go.jp/mofaj/gaiko/oda/files/000071826.pdf>).

not only by the countries with cultural heritage in danger, but also by the entire international community.

Moreover, sports can not only help maintain and improve health, but also contribute to cultivating a sense of respect for others, a spirit of mutual understanding, and awareness of norms. The influence and positive power of sports play the role of “catalyzer” for the development and growth of developing countries.

Japan's Efforts

Japan has provided assistance for the promotion of culture (including sports) and higher education as well as the preservation of cultural heritage in developing countries through the Cultural Grant Assistance* since 1975. Facilities constructed with such assistance also serve as hubs for spreading information about Japan and holding cultural exchanges with Japan, and these efforts could be effective in developing a deeper understanding of Japan and fostering a sense of affinity toward Japan. In 2021, Japan implemented 14 projects to provide support in the fields of education, including Japanese language education, cultural heritage preservation, and sports under the Cultural Grant Assistance.

Moreover, Japan provides support for the restoration and preservation of cultural heritage, including equipment provision and preliminary studies and surveys, through the “Japanese Funds-in-Trust” established in UNESCO. Japan contributed approximately ¥700 million in FY2021 and has implemented multiple projects in the field of cultural heritage through the fund. Placing a particular emphasis on human resources development in developing countries, so as to enable people to preserve the cultural heritage of their own countries by themselves in the future, Japan also endeavors to dispatch international experts, mainly Japanese experts, as well as hold workshops in order to transfer the techniques and expertise to developing countries. In addition to tangible cultural heritage, Japan also supports the safeguarding of intangible cultural heritage such as traditional dances, music, handcraft techniques, and oral lore (oral traditions) by implementing successor training, records conservation, the creation of safeguard mechanisms, and other activities through the Japanese Funds-in-Trust.

Japan is also conducting training programs with the aim of improving capabilities for the protection of cultural heritage by inviting young experts involved in

Malawi

The 50th Anniversary of JOCV Program in Malawi – Kendo Suburi (practice swings) Made the Japan-Malawi Bond JICA Volunteer Program (1971 – ongoing)



50 years have passed in August 2021 since Japan Overseas Cooperation Volunteers (JOCVs)*¹ were dispatched to Malawi in southeast Africa for the first time. The total number of JOCVs dispatched to Malawi is 1,897 (as of the end of October 2021). The country is the world's largest recipient of JOCVs. They have worked with local people to address issues they face and have contributed to the development of Malawi across a range of fields. They have not only carried out activities relating to their work roles at their assigned locations, but also have engaged in a wide variety of cooperative activities and exchanges while living with local people, speaking their language, and becoming part of their local communities.



A photo exhibition in commemoration of the 50th anniversary of the JOCV Program in Malawi, organized at a shopping mall in the capital city of Malawi (Photo: JICA)

A JOCV nutritionist dispatched to a hospital in Blantyre, a business city in southern Malawi, was practicing kendo swings in the hospital garden during break time in 1992. This attracted some children nearby and they ended up joining in the practice. After the JOCV returned to Japan, other dispatched volunteers also continued to practice kendo with those children and they ended up becoming kendo instructors.



JOCVs teaching kendo to children in around 1993 (Photo: JICA)

JOCV kendo instructors have not been to Malawi, and a sufficient number of protective gear and adequate facilities have not been arranged. Nevertheless, kendo became widespread in the country as JOCVs dispatched to work in various fields continued practicing kendo with the people of Malawi as part of their daily lives in the community. As a result, the KENDO Association of Malawi was established in 1999, and kendo- and culture-related exchanges through JOCVs have continued ever since. It will be 30 years in 2022 since kendo (practice swings in the hospital garden) was introduced in Malawi.

JOCV's activities in the local communities have led to the enhancement of friendship and mutual understanding between Malawi and Japan and are highly appreciated as Japan's “Visible Development Cooperation.”

*1 In Japanese, *JICA kaigai kyoryoku tai*; at the time, the Japanese term used was *seinen kaigai kyoryoku tai*.

cultural heritage protection from the Asia-Pacific region to Japan as part of the “Project for the Promotion of Cooperation for the Protection of World Heritage and Other Cultural Properties in the Asia-Pacific Region.” In addition to conducting biennial training on maintenance and repair methods for wooden buildings and survey records of archeological remains, training on photographic documentation of heritage buildings for experts in Indonesia and other activities were conducted virtually in 2021.

Furthermore, as the host country of the Olympic and

Paralympic Games Tokyo 2020, held in 2021, Japan, in order to promote “Sport for Tomorrow,” ⁶⁰ an international contribution through sports to spread the value of sports and the Olympic and Paralympic Movement, provided sports assistance using ODA and “Projects for Sports Diplomacy Enhancement.” ⁶¹ In addition, 23 JOCVs have been dispatched in the field of sports (see page 118 and 119 regarding Japan’s initiatives in South Sudan, and page 70 for “Project Introduction Column” regarding JOCV’s activities).



Glossary

Cultural Grant Assistance

Cultural Grant Assistance is a grant aid to procure equipment and supplies and to construct and rehabilitate facilities for the promotion of culture (including sports) and higher education as well as preservation of cultural heritage in developing countries. It is intended to encourage cultural and educational advancements in developing countries as well as cultural exchanges between Japan and these countries with an aim of promoting friendly relationships and mutual understanding. It includes Cultural Grant Assistance, which provides assistance to governmental organizations of developing countries, and Grant Assistance for Cultural Grassroots Projects, which provides assistance to NGOs and local public entities for small-scale projects.

(6) Actions on the Environment and Climate Change

As the environment and climate change are also mentioned in the SDGs, and with the occurrence of extreme weather events and devastating natural disasters in recent years, these are critical time-sensitive issues that the international community must work together on. Japan has been vigorously working on addressing these issues and provides assistance to developing countries through the Global Environment Facility (GEF),* a financing mechanism for major international environmental treaties such as the Convention on Biological Diversity and United Nations Framework Convention on Climate Change (UNFCCC), as the world’s top donor.



Japan's Efforts

Conservation of the Marine Environment

Marine plastic litter is a pressing issue that can have an adverse impact on the marine ecosystem, tourism, fisheries, and human health. In recent years, measures to address this issue have become increasingly important. As of December 2021, 87 countries and regions have shared the “Osaka Blue Ocean Vision,” which aims to reduce additional pollution by marine plastic litter to zero by 2050, and was led by Japan at the G20 Osaka Summit in 2019. In order to realize the Vision, Japan launched the “MARINE Initiative” that focuses on (i) Management of wastes, (ii) Recovery of marine litter, (iii) Innovation, and (iv) Empowerment. Under the Initiative, Japan supports

capacity building and infrastructure development for waste management in developing countries in order to encourage effective measures against marine plastic litter worldwide (see also “Master Techniques from Japan to the World” on page 73 for efforts on the formation of a Center of Excellence for Marine Plastic Pollution Studies in Thailand).

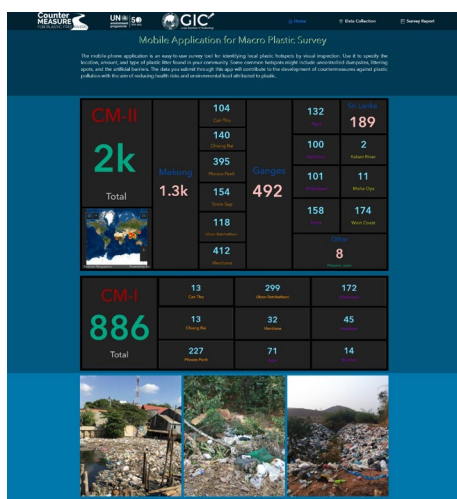
In 2021, Japan provided support through the United Nations Environment Programme (UNEP) for the projects for marine plastic countermeasures implemented by UNEP’s Asia and Pacific Office, which conducted awareness-raising activities for local people and developed a method for monitoring the flow of plastics into the ocean in the lower Mekong River basin of the Indochinese Peninsula as well as the Southwest Asia region. In addition, in order to enable policy making informed by scientific evidence, sampling surveys of plastic litter and scientific analysis of pathways of plastic pollution have been conducted to formulate policy recommendations and guidelines based on the results. Furthermore, in collaboration with a Japanese IT company, a plastic leakage hotspot map was created, identifying approximately 3,000 leakage points, and released on a dedicated website ⁶² available to the general public.

Moreover, as part of expanded assistance for ASEAN to address marine plastic litter issues that was announced at the ASEAN-Japan Summit Meeting in 2018, Japan has provided capacity building support and conducted awareness-raising and public relations activities for environmental conservation primarily on reducing marine

⁶⁰ Sport for Tomorrow Consortium (<https://www.sport4tomorrow.jpnsport.go.jp/>)

⁶¹ MOFA’s efforts regarding the Tokyo 2020 Olympic and Paralympic Games (https://www.mofa.go.jp/p_pd/ep/page23e_000467.html)

⁶² “Mobile Application for Macro Plastic Survey” (<https://arcg.is/1DOOWW>)



The status of plastic leakage made available on a dedicated website by UNEP's countermeasure projects against marine plastic (Photo: UNEP)

plastic litter in ASEAN countries since 2019.

For example, since 2021, with the contributions of the Japan-ASEAN Integration Fund (JAIF), ⁶³ Japan has supported capacity building for marine litter reduction by producing television programs on marine plastic litter issues, assisting in the promotion of a plastic circular society, and providing assistance for the formulation of national action plans for ASEAN countries. Concerning ODA projects, a total of eight participants (two from Thailand and one each from Cambodia, Indonesia, Laos, Malaysia, Myanmar, and Viet Nam) participated in online training held in January and November 2021. In the first training session, participants learned about survey methods and analysis techniques. In the second session, they learned about the efforts of companies, local governments, and communities to promote the recycling of marine plastic litter in Japan.

■ Conservation of Marine Resources

Japan has conducted training and workshops on countermeasures against illegal, unreported, and unregulated (IUU) fishing through JICA with the cooperation of the Southeast Asian Fisheries Development Center (SEAFDEC). Curbing the impact on fish ecosystems affected by IUU fishing that exceeds regulatory thresholds will lead to supporting the sustainability of the fishing industry, one of the core industries for ASEAN countries, and the sustainable development of fishing communities.

■ Climate Change

Climate change is a global issue that requires a cross-border approach, which calls on the international community including both developed and developing countries to strengthen its concerted efforts. The

Paris Agreement was adopted at the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) (2015), as a framework under which all countries would work toward greenhouse gas (GHG) emission reductions. The Paris Agreement entered into force in 2016.

In October 2020, as attention focused on sustainable and resilient recovery following the spread of COVID-19, Japan announced its goal of achieving net-zero GHG emissions by 2050. In April 2021, Japan also announced its aim to reduce its GHG emissions by 46% in FY2030 from its FY2013 levels, and to continue strenuous efforts in its challenge to meet the lofty goal of cutting its emissions by 50%. In October 2021, Japan submitted its Nationally Determined Contribution (NDC) ⁶⁴ reflecting these goals and “The Long-term Strategy under the Paris Agreement” to the United Nations (see “ODA Topics” on page 74 for Japan’s efforts in aiming to achieve a carbon-neutral society).

COP26 was held in Glasgow in the United Kingdom from October 31 to November 13, 2021, after being postponed due to COVID-19. At COP26, the rules for Article 6 (market mechanisms) of the Paris Agreement were adopted, for which there had been ongoing negotiations, based on Japan’s proposal, as well as on the reporting format for GHG emissions and NDC progress by each country and common time frames for NDC implementation. With the completion of “the Paris Rulebook,” important progress has been made in steadily implementing the Paris Agreement and promoting climate change countermeasures throughout the world.

Japan is actively supporting climate change actions in developing countries. At the G7 Cornwall Summit held in June 2021, Japan announced its support related to climate change, both public and private, totaling ¥6.5 trillion over the five-year period from 2021 to



Prime Minister Kishida giving a speech at the COP26 World Leaders Summit in November 2021 (Photo: Cabinet Public Affairs Office of the Government of Japan)

⁶³ See 4 on page 91.

⁶⁴ Parties set their GHG emission reduction targets and formulate measures to achieve them, which are submitted as their NDC to the United Nations Framework Convention on Climate Change (UNFCCC) secretariat.

MASTER
TECHNIQUES

3

from Japan to the World

Academia in Japan and Thailand Taking on
the Challenge of Clarifying the Actual State of
the Marine Plastic Wastes Problem

—Intellectual contribution to science-based policy making—



In recent years, global interest in marine pollution caused by plastic wastes has been rising.*1 Plastic has now become essential for our lives and supports the lives of many people in developing countries, including the vulnerable. For example, it enables us to transport drinking water to the regions without a water supply. However, plastic can have a serious impact on ecosystems if it is not processed appropriately after use and is released out into the natural world, so measures to deal with marine plastic wastes have become an urgent issue. Researchers on marine plastic pollution have been rapidly increasing globally since approximately 10 years ago, but large aspects of the problem remain unexplained scientifically, including its outflow routes and the impact on the marine environment.

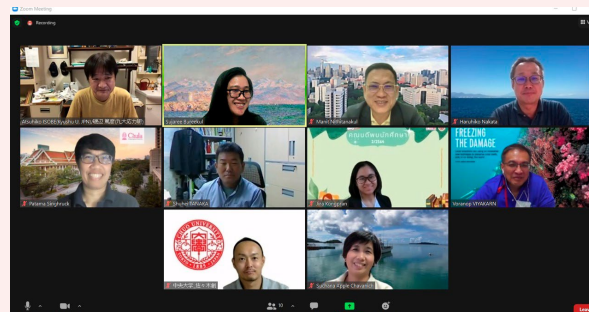
In response to this situation, a research team led by Dr. ISOBE Atsuhiko, Professor of Kyushu University, and Dr. Voranop Viyakarn, Professor of Chulalongkorn University in Thailand, commenced the “Project for Formation of a Center of Excellence for Marine Plastic Pollution Studies in the Southeast Asian Seas” under the Science and Technology Research Partnership for Sustainable Development (SATREPS)*2 program. From its base at the Center of Excellence in Thailand, the team is conducting scientific surveys and analysis on the path of generation and amounts of plastic wastes, among other matters, in the Southeast Asian seas, a marine plastic pollution hotspot.*3



Collecting microplastics (Photo: Kyushu University)

“In order to solve this problem, firstly we need to accurately ascertain the volume and the routes of the marine plastic wastes generated. Due to the impact of COVID-19, Japan’s researchers currently cannot travel overseas, so Thailand’s researchers are using new technologies such as drones to monitor the land, rivers, and oceans, and researchers in both countries are holding a series of discussions while checking the survey results online,” said Dr. Isobe.

Dr. Viyakarn, the representative of the Thai side, studied at a high school in Japan as a Royal Thai Government scholarship student and devoted himself to his studies in Japan for



A meeting between researchers from Japan and Thailand held online due to COVID-19 (Dr. Isobe is leftmost in the top row, and Dr. Viyakarn is rightmost in the middle row) (Photo: Kyushu University)

13-and-a-half years until he earned his doctorate. “I would like the research technologies of Japan to be utilized, and the young researchers of Thailand and Japan to be trained through this project. One of the important objectives of this project is enhancing the capacity and developing human resources of research institutions,” said Dr. Viyakarn. In Thailand, the Center for Ocean Plastic Studies (COPS), a satellite research center of Kyushu University, was opened in Chulalongkorn University in April 2022.

“We have received support from the Japan Science and Technology Agency (JST), and already our partnerships with overseas research institutions in the surrounding countries are expanding. The problem of plastic wastes measures is not a simple matter of eliminating all plastics at once. In particular, it is necessary to advance its reduction initiatives with the consent of all people, while taking into consideration the impact on the lives of people in vulnerable positions. For that reason, consensus building based on scientific evidence is essential. We hope that this project will establish a center of excellence that reaches a global audience, and that Thailand will become a role model for plastic wastes reduction among developing countries,” said Dr. Isobe.

It is expected that the collaboration between the scientists of Japan and Thailand will spread across Southeast Asia and then to the entire world, including Japan, with the aim of solving the plastic wastes problem.

*1 See Part II 3 “(6) Actions on the Environment and Climate Change.”

*2 See the glossary on page 39.

*3 An area or region with a high concentration of pollutants.

Japan's Efforts and Support for Developing Countries to Achieve Net-Zero by 2050

Climate change is an issue that requires immediate actions on a global scale. In October 2020, Japan declared its aim to realize a decarbonized-society by reducing greenhouse gas emissions to net-zero by 2050, and is promoting initiatives for this.

In the meeting of the Global Warming Prevention Headquarters in April 2021, Japan announced that it aims to reduce greenhouse gas emissions by 46% in FY2030 from FY2013 levels, setting an ambitious target that is aligned with the long-term goal of achieving net-zero by 2050, and that it will continue strenuous efforts in its challenge to meet the lofty goal of cutting emissions by 50%. This goal means to raise the previous target by over 70%. Japan also announced this goal to the world at the Leaders Summit on Climate hosted by the United States in April 2021 and the announcement was welcomed by other nations, including the United States.

Japan advanced its efforts to substantiate measures to achieve net-zero by 2050 and the FY2030 target. In October 2021, Japan formulated the new Plan for Global Warming Countermeasures and the Strategic Energy Plan. It also submitted Japan's National Determined Contribution (NDC)^{*1} which reflects the new reduction goals, and Japan's Long-Term Strategy under the Paris Agreement, which sets out initiatives to realize net-zero by 2050, to the Secretariat of the United Nations Framework Convention on Climate Change.

Japan has also accelerated collaboration and cooperation with other countries. At the Japan-U.S. Summit Meeting on April 16, 2021, the Japan-U.S. Climate Partnership was launched, with which both countries confirmed to promote initiatives under the following three pillars: (i) Cooperation and dialogue on climate ambition and implementation of the Paris Agreement, (ii) Climate and clean energy technology and innovation, and (iii) Cooperation on accelerating the transition to a decarbonized society in third countries, particularly in the Indo-Pacific. In addition, at the Japan-EU Summit on May 27, Japan and the EU launched the Japan-EU Green Alliance, a cooperative framework for the climate and environmental fields that includes the promotion of cooperation to support developing countries to transition to climate-neutral and climate-resilient societies.

At the G7 Cornwall Summit in June, Japan announced that it would provide assistance that amounts to ¥6.5 trillion

over the next five years from 2021 to 2025, both in public and private, and that it would enhance assistance in adaptation^{*2} for countries that are vulnerable to the effects of climate change.

In addition, in the Summit Communique, the G7 committed to an end to new direct government support for unabated international thermal coal power generation by the end of 2021.

On top of this, at the 26th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26), held from October to November 2021, Prime Minister Kishida stated his determination that Japan would be working in full force to take on climate change, a common challenge of humankind. In addition, in order to lead the initiative in fulfilling the goal of climate finance^{*3} that developed countries are collectively committed to the \$100 billion per year to assist developing countries' efforts, he announced the four new commitments below.

- (i) Developing leading projects worth \$100 million to transform fossil-fuel-fired thermal power into zero-emission thermal power that uses ammonia, hydrogen and other fuels, mainly in Asia, through the Asia Energy Transition Initiative, maximizing the introduction of renewable energy.
- (ii) Providing up to \$10 billion in the coming five years, which would include the contribution to the launch of Innovative Financial Facility for Climate as Japan partners with the Asian Development Bank and others to support the decarbonization of Asia and beyond, in addition to the contribution announced at the G7 Cornwall Summit in June 2021, in order to lead the initiative in fulfilling the financial goal of climate finance that developed countries are collectively committed to the \$100 billion per year.
- (iii) Doubling Japan's assistance for adaptation to climate change to approximately \$14.8 billion, both in public and private finance, in the five years to 2025.
- (iv) Providing financial assistance worth approximately \$240 million, in both public and private finance, for the forest sector in the five years to 2025.

Japan will steadfastly implement its commitments in the international community and continue to contribute proactively to climate change measures both through its own initiatives and the support for the efforts of developing countries.



"The COP26 Globe at the Hydro," at the COP26 venue (Photo: Karwai Tang/UK Government)



Prime Minister Kishida delivering a speech at the COP26 World Leaders Summit (Photo: Cabinet Public Affairs Office of the Government of Japan)

*1 See 64 on page 72.

*2 See 65 on page 75.

*3 At COP15 in 2009, developed countries agreed to collectively provide support worth \$100 billion per year, both in public and private finance, to developing countries up to 2020. Then, at COP21 held in 2015, developed countries agreed to keep this commitment through to 2025.

2025, and its further enhancement of assistance for adaptation ⁶⁵ for countries vulnerable to the impacts of climate change.

Furthermore, on November 2, Prime Minister Kishida attended the World Leaders Summit, the summit-level meeting of COP26, and announced Japan's efforts to promote future climate change actions. In regard to support for developing countries, in addition to the support announced at the G7 Cornwall Summit in June, he announced that Japan would provide up to \$10 billion in both public and private finance over a five-year period. Prime Minister Kishida also announced the doubling of Japan's amount of assistance for adaptation to climate change from the previous commitment (ACE 2.0) to ¥1.6 trillion over five years.

Regarding multilateral support, Japan has supported developing countries through its contribution to the Green Climate Fund (GCF),* the world's largest multilateral climate fund. Japan has pledged up to \$3 billion to the fund, putting effort into supporting countries vulnerable to the impacts of climate change as the fund's second largest donor country. At the GCF, a total of 190 projects have been approved by December 2021, with a large number of them entering the implementation phase, which in total are expected to avoid GHG emissions by 2 billion tons and increase the resilience of 610 million people through support for adaptation. Additionally, from Japan, JICA, MUFG Bank, and SMBC have been approved as "Accredited Entities" that are entitled to propose GCF projects, and to date, two projects by MUFG Bank (construction of solar power and pumped-storage hydroelectricity facilities in Chile (July 2019) and sustainable forestry project in seven countries in Sub-Saharan and South American region (March 2020)) and two projects by JICA (Community-based Landscape Management for Enhanced Climate Resilience and Reduction of

Deforestation in Critical Watersheds (March 2021) and Building Climate Resilient and Safer Islands in the Maldives (July 2021)) have been approved.

Furthermore, in order to achieve net-zero GHG emissions for the international community as a whole, at the annual meetings of the World Bank and IMF in October 2021, Japan released "Japan's Proposal on MDBs' Support in the Energy Sector." The proposal requests multilateral development banks (MDBs) to support developing countries in formulating and implementing ambitious energy plans, as well as the best projects from the perspective of reducing GHG emissions.

In line with this proposal, Japan cooperates with MDBs to support efforts to bolster energy transition in developing countries. This includes contribution to the establishment of the Asian Development Bank's (ADB) Energy Transition Mechanism (ETM), which supports the energy transition from coal-fired power generation in developing countries, and the Capital Market Mechanism of the Climate Investment Fund instituted at the World Bank, at COP26.

As a specific example of bilateral assistance, Japan has supported the establishment of the Pacific Climate Change Centre in Samoa to which Japan dispatches experts on climate change countermeasures. Through the Centre, Japan strives to develop human resources in the Pacific Island countries vulnerable to climate change (see also "Stories from the Field" on page 86).

In addition, as part of its assistance for climate change actions in developing countries and others, Japan promotes the "Joint Crediting Mechanism (JCM),"* which facilitates the global diffusion of advanced decarbonizing technologies to the world including to developing countries. This will contribute to GHG emission reductions in developing countries and Japan, and partner countries can share the result as credits. In 2013, Japan signed the first bilateral document pertaining to the JCM implementation with Mongolia, and to date, it has established the JCM with 17 countries. As of the end of 2021, the JCM credits have been issued from 38 energy-saving and renewable energy projects in Cambodia, Indonesia, Kenya, Laos, the Maldives, Mongolia, Palau, Saudi Arabia, Thailand, and Viet Nam. These JCM projects are contributing to GHG emission reductions worldwide.

As countries, particularly those in Asia, declared net-zero GHG emissions at COP26, it is important for Japan to support decarbonization transitions throughout the world. Japan implements comprehensive cooperation for decarbonization transitions in the ASEAN region based on the ASEAN-Japan Climate Change Action Agenda 2.0 announced by Prime Minister Kishida at the ASEAN-Japan Summit Meeting held on October 27, 2021.



Training participants in "The Project for Introduction of Hybrid Power Generation System in the Pacific Island Countries" visiting the Okinawa Electric Power Company's training facility in Japan and receiving a lecture (Photo: Okinawa Enetech)

⁶⁵ There are two strategies to tackle climate change. The first is "mitigation," which refers to reducing GHG emissions through energy conservation, the use of low-carbon energy such as renewable energy, and carbon dioxide absorption by plants. The second is "adaptation," which refers to the prevention and alleviation of negative impacts being brought about by climate change such as sea level rise and drought.

Japan will continue to lead the international community toward the realization of a decarbonized society, which is the goal of the Paris Agreement.

■ Biodiversity

Expansion in the types, scope, and scale of human activities has given rise to serious concerns about further degradation of habitats and the destruction of the ecosystem in recent years. Japan values biodiversity initiatives, as seen in the 10th Meeting of the Conference of the Parties to the Convention on Biological Diversity* (COP10) (2010) in Nagoya City, Aichi Prefecture. With the aim of providing support such as the capacity building of developing countries toward the achievement of the Aichi Biodiversity Targets, ⁶⁶ Japan has made contributions to the Japan Biodiversity Fund, ⁶⁷ through which the Secretariat of the Convention organizes webinars on the conservation of biodiversity. The first part of the 15th Meeting of the Conference of the Parties (COP15), which had been postponed due to COVID-19, was held in October 2021, and its second part is scheduled to be held in 2022. During the first part, Minister of the Environment Yamaguchi announced Japan's international support as the second phase of the "Japan Biodiversity Fund" with \$17 million in total. During the second part of COP15, the formulation of the Post-2020 Global Biodiversity Framework is expected, including the next global goals and targets that will replace the Aichi Biodiversity Targets. Japan participates in and contributes to the discussions.

In recent years, illegal trade of wildlife has increasingly become a serious issue. The international community has been paying attention to this issue as it has been one of the funding sources of international terrorist organizations. Along with actively participating in the discussions at the Convention on International



Extraction of essential oils at an agricultural cooperative in Tunisia. Through ODA loans, Japan supports forest restoration, sustainable forest management, and improvement of the natural environment (Photo: JICA)

Trade in Endangered Species of Wild Fauna and Flora (CITES), Japan works on resolving these issues in cooperation with the international community through the contribution to projects implemented by the CITES Secretariat. Specifically, Japan has supported the construction of facilities for implementing elephant poaching countermeasures among other initiatives.

■ Conservation of Tropical Forests

Tropical forests account for approximately half of the world's forests and play an important role in tackling climate change and conserving biodiversity. Japan invited the International Tropical Timber Organization (ITTO) to establish its headquarters in Yokohama, and has supported sustainable management of tropical forests as well as legal and sustainable tropical timber trade through the organization for more than 30 years. In recent years, through voluntary contributions from Japan, ITTO has been engaged in projects to deal with forest fires in the tropics, which have become more frequent and serious recently, projects to build capacity for sustainable forest management in tropical timber producing countries, and the development of a timber-tracking system to combat illegal logging (see also "Project Introduction Column" on page 77).

■ Environmental Pollution Control Measures

In developing countries, regulatory controls on hazardous chemical materials are often not in place, and sometimes lead to environmental pollution and health damage. Japan has accumulated abundant knowledge, experience, and technology related to environmental pollution control measures and utilizes them to solve environmental pollution problems in developing countries (see "Stories from the Field" on page 109 regarding efforts for environmental conservation and ecotourism by former JICA training participants in Bolivia). Japan also conducts technical cooperation in the chemical industry, such as dispatching experts to developing countries and accepting trainees from them, including in the areas of environmental management techniques, analysis techniques and risk evaluation for environmentally hazardous substances, and chemical trace analysis techniques.

The "Minamata Convention on Mercury" was adopted at the Conference of Plenipotentiaries on the Minamata Convention on Mercury (2013) and entered into force in August 2017. Japan exercises continuous leadership in promoting the management of global mercury pollution by proactively transferring to the world its technology and know-how on preventing adverse effects caused by mercury, accumulated through its experience with

⁶⁶ Set out in the Strategic Plan for Biodiversity 2011 - 2020 of the CBD adopted at COP10 in 2010.

⁶⁷ Established in the Secretariat of the CBD by Japan during its COP10 Presidency with the aim of cultivating capacities in developing countries for the achievement of the Aichi Biodiversity Targets.

the Minamata disease.⁶⁸ In December 2021, Japan, among other things, held online training regarding the monitoring of mercury with the participation of 33 countries and regions, partnering with UNEP-ROAP as the implementing institution in order to provide support for developing countries.

In the field of waste management, based on the “MARINE Initiative,” Japan announced to provide training for 10,000 officials engaging in waste management around the world by 2025, and approximately 6,000 officials have been trained by the end of 2021.

Moreover, as a model project for waste management support in Africa under the African Clean Cities Platform (ACCP),* Japan has provided support for the Hulene



A JOCV working to help improve recycling rates in the Dominican Republic (Photo: JICA)

Indonesia, Peru

Prevention and Management of Fires in Tropical Timber Production Forests

ITTO Contributions (February 2021 – January 2022)



The International Tropical Timber Organization (ITTO) is an international organization promoting the sustainable forest management of tropical forests and the expansion and diversification of trade in legally harvested tropical timber. Under the auspices of the United Nations Conference on Trade and Development (UNCTAD) and with the strong support of the Government of Japan and Yokohama City, it was established in 1986 and headquartered in Yokohama. The importance of ITTO's work has risen amid progressive rises in global temperatures and growing expectations on the role of forests in mitigating climate change through the absorption of greenhouse gases. The ITTO staff, nearly half of which are Japanese, are involved in a variety of assignments from project management to finance and general affairs.

The ITTO has a track record of policy formulation and capacity building related to integrated forest fire management*¹ in tropical regions. As a part of these initiatives, with the support of the Government of Japan, ITTO assisted Indonesia*² and Peru*³ in 2021 in conducting projects that take an integrated and participatory approach to forest fire management.

Prolonged droughts and heat waves aggravate forest fires, and these are major causes of deforestation and forest degradation in Kalimantan and the Amazon region. The two projects targeted both regions, which are particularly vulnerable to forest fires, and carried out promotional campaigns and training for indigenous people (particularly those who engage in practices such as slash-and-burn agriculture), community residents (including farmers), and other relevant forestry stakeholders. This training promoted awareness of the importance of the sustainable use of forest resources and the prevention and management of fires in agriculture and forestry practices. Furthermore, the project strengthened the capacity of firefighting-relevant



Members of the Forest and Land Fire Brigade going to the scene of a fire in West Kalimantan Province, Indonesia (Photo: Ministry of Environment and Forestry of the Republic of Indonesia)



Fighting a forest fire in the Department of Junín, Peru (Photo: National Forest and Wildlife Service of Peru)

authorities, introduced early-warning alert and fire monitoring systems leveraging information and communications technology (ICT), and enhanced cooperation networks to facilitate information exchange and dialogue among all relevant local stakeholders (including local residents, forestry workers, NGOs and local and central institutions) for forest fire prevention. As of December 2021, four training courses have been conducted for community residents tasked with fire management and a guidebook about appropriate forms of agricultural waste processing is in the final stages of completion. These activities, combined, provide local communities with the means to sustain livelihoods through more sustainable methods.

These projects are expected to help manage forest fires appropriately and conserve tropical forest resources in Kalimantan and the Amazon region, thereby contributing to climate change mitigation and biodiversity conservation.

*1 Integrated forest fire management (IFFM) is a systematic approach to manage forest fires. In addition to the traditional efforts of fire prevention and fire extinction, it includes the implementation of planned burns as one of the means, resident participation, and forest law enforcement.

*2 South Sumatra Province, Central Kalimantan Province, and South Kalimantan Province.

*3 Department of Cajamarca, Department of Huánuco, Department of Junín, Department of Pasco, and Department of Ucayali.

⁶⁸ A toxic nervous disorder caused by ingesting fish and shellfish contaminated with methylmercury compounds discharged from chemical plants. The disease was officially acknowledged in May 1956 in and around Minamata Bay area in Kumamoto Prefecture, and in May 1965 in the Agano River basin of Niigata Prefecture.

final waste dumping site in Mozambique. Following an accident in which a waste pile collapsed due to heavy rains, Japan has supported the prevention of further collapse and future safety measures by applying the “Fukuoka method” at the dumping site through pilot construction utilizing counterpart funds and on-site

guidance by experts. This “Fukuoka” method was developed by Japan and is being introduced in waste dumping sites around the world, such as Asia and Africa. The first construction for safety measures, which began in 2019, was completed in October 2020.



Glossary

Global Environment Facility (GEF)

A multilateral funding mechanism providing primarily grant-based financing for projects that contribute to global environmental conservation in developing countries. Established in 1991, 184 countries including Japan participate (as of December 2021). The World Bank manages the contributions from participating countries. Through 18 implementing organizations including MDBs (World Bank, ADB, etc.) and UN organizations (UNDP, UNEP, etc.), it assists in the five areas of biodiversity conservation, measures against climate change, pollution prevention in international waters, measures against land degradation, and measures against chemicals and waste. It is designated as the financing mechanism to five international conventions: United Nations Framework Convention on Climate Change, Convention on Biological Diversity, UN Convention to Combat Desertification, Stockholm Convention on Persistent Organic Pollutants, and Minamata Convention on Mercury.

Green Climate Fund (GCF)

A multilateral climate fund established by the decision of COP16 (Cancun Agreement) in 2010, in order to support developing countries in reducing/absorbing their GHGs (mitigation) and enhancing their ability to respond to climate change (adaptation).

Joint Crediting Mechanism (JCM)

A mechanism to evaluate contributions from Japan to GHG emission reductions or removals in a quantitative manner achieved through the diffusion of advanced decarbonizing technologies, products, systems, services, and infrastructure to developing countries and others and through the implementation of GHG reduction projects, and to use the achieved reductions as “credit” to achieve Japan’s emission reduction target.

Convention on Biological Diversity (CBD)

A convention adopted in 1992 to advance efforts to address biodiversity issues on a global scale. The objectives of CBD are the following: (i) conservation of biological diversity, (ii) sustainable use of the components of biological diversity (utilizing living things, etc. for resources into the future while maintaining diversity at the levels of ecosystems, species, and genes), and (iii) fair and equitable sharing of the benefits arising from the utilization of genetic resources. Through the provision of economic and technical assistance to developing countries from developed countries, the international community as a whole facilitates the conservation and sustainable use of biological diversity worldwide.

African Clean Cities Platform (ACCP)

Established in 2017 by the Ministry of the Environment together with JICA, the City of Yokohama, UNEP, and the UN Human Settlement Programme (UN-Habitat) aiming to share knowledge on waste management and promote the achievement of the SDGs in Africa. 89 cities in 42 countries in Africa have joined, holding plenary sessions, creating various guidelines and educational materials, planning study tours, and more.

(7) Mainstreaming of Disaster Risk Reduction, Measures of Disaster Risk Reduction, and Post-Disaster Recovery and Creating Sustainable Cities

In developing countries that are vulnerable to disasters, disasters have a significant impact on the entire society and economy. Therefore, it is necessary to build a disaster-resilient and flexible society to protect human lives from disasters. At the same time, efforts toward sustainable development are needed. Among them, it is important to promote the “mainstreaming of disaster risk reduction” that introduces the perspective of disaster risk reduction in all the development policies and plans.

Moreover, in recent years, various issues related to the management of cities are receiving increased attention. For example, such issues as handling the disposal of the substantial amount of waste emitted in urban areas and suburbs, air, water, and other pollution, development of infrastructure facilities including sewage and waste treatment systems, and rapid population increases and the consequent rapid pace of urbanization. Addressing these issues and engaging in efforts to realize sustainable cities have become priorities for development cooperation.

Thus, among the SDGs, Goal 11 sets forth the following task: “Make cities and human settlements inclusive, safe, resilient and sustainable.” Likewise, there are growing international interests in resolving the issues of human settlements that include realizing sustainable cities.

Japan's Efforts

■ Cooperation in Disaster Risk Reduction

Japan utilizes its enriched knowledge and technology acquired through its past experiences with natural disasters, such as earthquakes and typhoons, to provide proactive support for disaster risk reduction and post-disaster recovery measures, alongside emergency assistance (see “Stories from the Field” on page 81, and the “Project Introduction Columns” on page 80, 97, and 107). The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework), which was adopted at the Third UN World Conference on Disaster Risk Reduction (2015), incorporated many ideas proposed by Japan, such as the “mainstreaming of disaster risk reduction,” the importance of prior investment in disaster risk reduction, the commitments of diverse stakeholders, the concept of “Build Back Better” striving to build cities that are more resilient to natural disasters after disasters, and the importance of women’s leadership.

Currently, based on the Sendai Cooperation Initiative for Disaster Risk Reduction Phase 2 announced in 2019, which is Japan’s basic policy for cooperation in the field of disaster risk reduction, Japan contributes to the development of a disaster-resilient international

community where everyone can live in safety by utilizing its advanced expertise and technology in the field of disaster risk reduction. Specifically, Japan has promoted human resources development for a total of 48,000 officials and local leaders and disaster risk reduction education for a total of 37,000 children who are responsible for the next generation, in addition to the support provided for at least five million people over the four-year period from 2019 to 2022 through flood countermeasures and other measures. Such efforts contribute to promoting not only the maintenance of disaster-resilient building structures and upgrading disaster monitoring facilities in each country, but also the development of human resources in fields such as laws and plans enactment related to disaster risk reduction, formulation of disaster risk reduction policies, and disaster monitoring. Consequently, the mainstreaming of disaster risk reduction is progressing in developing countries.



A Japanese expert providing instruction during a workshop for the socialization of the manual for the preparation of the tsunami evacuation Plan in Ecuador (Photo: JICA)

In addition, a resolution was adopted to designate November 5 as World Tsunami Awareness Day responding to Japan’s encouragement at the UN General Assembly in 2015. Accordingly, the “High School Students Summit on World Tsunami Awareness Day” has been held throughout Japan since 2016, and on November 5, 2021, Japan co-organized an event to raise awareness of the necessity to reduce the risk of tsunamis at the UN Headquarters with the United Nations Office for Disaster Risk Reduction (UNDRR).

Moreover, in close cooperation with UNDP, Japan has implemented projects to support the formulation of tsunami evacuation plans and tsunami evacuation drills for countries at high tsunami risk in the Asia-Pacific region. Under these projects, ⁶⁹ during the period from December 2018 to February 2021, in Palau, a Presidential Proclamation was implemented declaring September of every year as National Preparedness Month, and the institutionalization of disaster risk reduction has been

⁶⁹ Phase II of the projects targeted 18 countries in the Asia-Pacific region (five of which are newly added).

promoted. Also, during the same period, teacher and other staff training were conducted, and the formulation and revision of tsunami disaster management plans as well as programs for tsunami education were implemented at 265 schools across 15 countries, with 100,119 students, teachers, and other school personnel participating in tsunami evacuation drills. In addition, in 2021, Japan implemented technical assistance through UNDRR to Arab countries (Egypt, Jordan, and Lebanon) to formulate disaster risk reduction strategies for “Build Back Better,” taking into account measures to address infectious diseases such as COVID-19.

Additionally, every year since 2016, Japan and the United Nations Institute for Training and Research (UNITAR) Hiroshima Office have worked together to provide support for human resources development related to women’s roles and leadership, particularly in the event of tsunamis, targeting female government officials and others in developing countries vulnerable to natural disasters. Under this project, 287 people from 26 Pacific and Indian Ocean island countries have participated by the end of 2021.

Japan also contributes in the field of overseas deployment of ICT for disaster risk reduction. Japan’s ICT for disaster risk reduction makes it possible to collect, analyze, and distribute disaster information in an integrated manner, allowing detailed information to be communicated swiftly and infallibly at the community level. This contributes to the improvement of disaster risk reduction capabilities in developing countries.

■ Realizing Sustainable Cities

Japan implements initiatives to resolve global issues directly related to human settlements, including efforts for promoting disaster risk reduction, recovery from natural disasters, and a sound water cycle. In particular, drawing on its know-how and experience, Japan develops infrastructure, including water and sewage, waste, and energy facilities. In addition, Japan conducts disaster risk reduction programs, human resources development, etc. based on the concept of “Build Back Better” (see also “Stories from the Field” on page 81 and 109). Japan works together with the United Nations Human Settlements Programme (UN-Habitat)

Guatemala

Project on Capacity Development for Disaster Risk Management in Central America “BOSAI” Phase 2 Technical Cooperation Project (July 2015 – June 2020)



As with Japan, the Central America region faces risks from a variety of natural disasters, including earthquakes, volcanic disasters, and storm and flood damage. Japan has been providing a variety of assistance for disaster risk reduction to this region, utilizing its own knowledge and experience. The Project on Capacity Development for Disaster Risk Management in Central America (BOSAI) started in 2007, targeting six Central American countries,*1 and has steadily advanced initiatives that were implementable at the community level, such as building dikes utilizing used tires. In 2015, Phase 2 of the project commenced with the aim of expanding such outcomes in each country and across the Central America region.



A Japanese expert team explaining to the residents about volcanic disaster risk reduction maps (Photo: JICA)

In Guatemala, one of the target countries of Phase 2, actions were taken to strengthen the volcanic disaster prevention capacity of the National Coordinator for Disaster Reduction. Through the project, a volcanic disaster risk prevention council was established for each volcano, enabling members of institutions involved in disaster risk reduction and volcano observation as well as officials of the departmental and city governments to come together to advance countermeasures. Volcanic disaster risk reduction maps were also updated with a system that enables all necessary information to be obtained at once during a disaster. Initiatives have been implemented, including development of a system for

the residents in the vicinity of a volcano to utilize radio and social media to report to officials in charge of disaster risk reduction about a volcano’s condition, and utilization of the record of the experiences from past disasters, learned from interviews with residents, as teaching materials. As a result, awareness of disaster risk reduction of the residents has gradually improved.

When the volcano Fuego erupted in 2018, concrete results of these efforts were seen. For example, the residents who had received the training recognized the danger, encouraged the evacuation of their neighbors and practiced the emergency first-aid that they had learned in the training. Subsequently, the project itself was also modified based on the lessons learned from the problems of equipment and infrastructure used for observation and evacuation warning, which were revealed in the incident of eruption.

Even after the completion of the project, the residents of Guatemala themselves have continued disaster risk reduction initiatives that utilize the knowledge and experience of Japan, such as training for efficient management of evacuation centers.



Staff of the National Coordinator for Disaster Reduction preparing the timeline in consultation with municipal officers and Japanese experts (Photo: JICA)

*1 Guatemala, Honduras, El Salvador, Costa Rica, Panama, and Nicaragua (Nicaragua was included from December 2008).

Stories from the Field

Leave No One Behind in Times of Disaster!

—Striving day by day to promote “Disability-Inclusive Disaster Risk Reduction” in the Asia-Pacific region—



3

15% of the total population in any given country are estimated to live with a disability.*¹ Based on this estimate, it can be calculated that there are currently approximately 690 million persons with disabilities in the Asia-Pacific region. In 2002, when I took up my position at the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), whose headquarters are located in Bangkok, Thailand, that figure was 650 million. Although the number seemed too huge to grasp, it gave me a renewed determination to work hard in my position to improve the rights of persons with disabilities, which I look back on now with a feeling of nostalgia.

ESCAP provides programs in a variety of ways to the member states and regions*² to support legal and judicial systems development for social and economic development as a whole in the Asia-Pacific region. With regard to persons with disabilities, since 1993, ESCAP has worked under the leadership of the Government of Japan to launch initiatives for ensuring their human rights and their participation in social and economic development at the policy level, under the “Asian and Pacific Decade of Persons with Disabilities”*³ framework. Today, ESCAP continues to implement various efforts that are not found in other regions, such as Africa and Latin America.

Under such circumstances, with the support of the Government of Japan, I have been working on a technical assistance project for disaster risk reduction, an urgent challenge threatening the lives of persons with disabilities in the Asia-Pacific region, since 2014. Specifically, the project aims to realize “Disability-inclusive Disaster Risk Reduction (DiDRR; disaster risk reduction that reflects the perspectives of persons with disabilities).”

The death rate among persons with disabilities in the event of natural disasters is believed to be higher than that of disaster-affected people in general. This is due to a lack of evacuation drills and preparedness, barrier-free facilities such as evacuation centers and temporary toilets, provision of information through sign language interpretation and subtitles on television and the internet after a disaster strikes, and considerations for persons with a variety of disabilities, including those with intellectual disabilities, developmental disabilities, and autism. There has also been insufficient focus on “disability-inclusion,” which reflects the perspectives of persons with disabilities, in the general policies adopted by most countries.

As a first step towards improving such circumstances, a conference was held in Sendai in 2014 with the participation of government officials involved in disaster risk reduction and various organizations representing persons with disabilities from Indonesia, Bangladesh, and the Philippines, where disasters occur frequently. The results of the discussions among the participants created momentum that led to the incorporation of the “DiDRR” perspective into the Sendai Framework for Disaster Risk Reduction 2015-2030*⁴ that



The author attending a conference in Bangladesh on “disability-inclusive disaster risk reduction” (Photo: Centre for Disability in Development Bangladesh)

was adopted the following year. This result marked a major step forward, including ensuring that the Sendai Framework recognizes persons with disabilities as an important social group that is greatly impacted by disasters, and proclaiming the importance of the universal design principles that ensure the creation of materials and systems that can be used easily by everyone including persons with disabilities, as well as the importance of ensuring that all stakeholders, including persons with disabilities, are involved in policy formulation from the initial design phase.

An ongoing project provides assistance for incorporating the perspectives of persons with disabilities into the day-to-day workings of the disaster risk reduction policies of various countries. The project selected four countries where disasters frequently occur but the “disability-inclusion” perspective does not seem to have penetrated in the mode of action and thinking of officials in charge of the frontlines of disaster risk reduction, and it is creating online education programs in languages of each country and aligned with their respective cultures and customs.

Post-disaster response has become more difficult in the wake of the COVID-19 pandemic. Under such circumstances, I intend to keep making my best effort to realize DiDRR, believing that this is the place to realize the “leave no one behind” principle, a core philosophy of the Sustainable Development Goals (SDGs).

AKIYAMA Aiko

Social Affairs Officer, United Nations Economic and Social Commission for Asia and the Pacific

*1 World Report on Disability 2011 (WHO) <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/world-report-on-disability>

*2 A total of 58 countries and regions, including 49 members and nine associate members.

*3 This was then extended in 2003 and 2013 for a further 10 years respectively.

*4 Adopted at the Third UN World Conference on Disaster Risk Reduction held in 2015. (See Part II (7) Disaster Risk Reduction for details.)

to further promote sustainable urban development. One example can be seen in collaboration with the UN-Habitat Regional Office for Asia and the Pacific (ROAP) in Fukuoka, which supports the introduction of the disaster prevention technology of Fukuoka prefecture to developing countries.

(8) Food Security and Nutrition

According to the report of “The State of Food Security and Nutrition in the World 2021,” ⁷⁰ in 2020, due to the impact of COVID-19 and other factors, the number of chronically undernourished people increased by more than 100 million compared to 2019, and between 720 million and 811 million people worldwide were chronically undernourished. This means that approximately one in ten people were chronically undernourished around the world. The report noted that exceptional efforts are required to achieve the SDGs by 2030. It also indicated that transforming food systems is essential to ensure food security. ⁷¹

Japan's Efforts

Japan proactively addresses food-related problems as a global issue, giving priority to cooperation for the promotion of agriculture, forestry, and fisheries, including the development of food value chains.* In the short term, Japan provides food assistance to developing countries to avert food shortages, and in the medium to long-term, it aims to help increase and improve agricultural production and productivity in developing countries in order to prevent and eliminate the causes of food-related problems including hunger (see also “Project Introduction Columns” on page 111 and 133 regarding efforts to assist smallholder farmers).



A Japanese staff member of the International Fund for Agricultural Development (IFAD) (dispatched under the JPO Programme) observing agricultural employment training for young people implemented in Nigeria (Photo: IFAD)

■ UN Food Systems Summit

In September 2021, the UN Food Systems Summit was held for the first time with the purpose of realizing a recovery from the effects of the COVID-19 pandemic, through the transformation of “food systems” which consist of food production, distribution and consumption, as well as of achieving the SDGs by 2030. Japan announced that it would work towards establishing better global “food systems,” focusing on the following three points: (i) to achieve both productivity improvement and sustainability by driving innovation, digitalization, and the utilization of science and technology; (ii) to maintain and strengthen free and fair trade, including the restraint of import and export restrictions based on arbitrary measures without scientific evidence; and (iii) to take an approach considering each country and region’s climate and nature, as well as their food culture.

■ Efforts to Provide Food Assistance and Improve Nutrition

Japan has provided the Food Aid Programme based on requests from developing countries confronting food shortages. In 2021, Japan contributed a total of ¥7.4 billion in 25 countries and regions by mainly providing the Japanese government’s stockpile rice.

In addition to bilateral support, Japan is also engaged in efforts to provide food assistance in cooperation with international organizations. For example, through WFP, Japan implements measures such as school meals programmes to improve access to education, as well as initiatives of food-for-work programmes to encourage people to participate in the development of agricultural land and social infrastructure through the distribution of food. In 2021, Japan also supported the flood-damaged south-central region of Laos by providing supplies and equipment for agricultural infrastructure development and by conducting training to improve disaster risk reduction capabilities. In 2020, WFP conducted activities including the distribution of approximately 4.2 million tons of food to approximately 111.5 million people in 84 countries around the world. In 2020, Japan contributed a total of approximately \$196.13 million to the WFP projects.

Furthermore, Japan supports the improvement of nutrition in developing countries through contributions to the multilateral development banks (MDBs). Japan announced additional contributions totaling \$70 million to the World Bank’s Global Financing Facility (GFF)* and the Japan Trust Fund for Scaling Up Nutrition in 2021.* In addition, from the perspective of mainstreaming nutrition in development policy, Japan hosted the 20th replenishment meeting of the

⁷⁰ A report jointly prepared and published by the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), WFP, UNICEF, and WHO.

⁷¹ A state where all people, at all times, can access sufficient, safe, and nutritious food.

International Development Association (IDA) of the World Bank Group in December 2021 where an agenda of strengthening human capital, including improving nutrition status, is included as a priority area (see “ODA Topics” on page 9 for the IDA20 Replenishment).

■ Tokyo Nutrition for Growth Summit 2021

The Government of Japan hosted the “Tokyo Nutrition for Growth Summit 2021” on December 7 and 8, 2021. The Summit addressed the global challenge of the “double burden of malnutrition,” where one in ten people in the world suffers from hunger and undernutrition, while one in three people is overweight or obese. It also discussed five thematic areas to address the worsening global nutrition situation due to COVID-19: (i) health, (ii) food, (iii) resilience, (iv) accountability, and (v) financing (see “ODA Topics” on page 56 on the Tokyo Nutrition for Growth Summit 2021).

The outcome document of the Summit, “the Tokyo Compact on Global Nutrition for Growth,” was endorsed by 215 stakeholders including 65 governments and 60 private companies, and the direction for future efforts by the international community to improve nutrition was set. Furthermore, 181 stakeholders, including 66 governments, 26 private companies, and 51 civil societies, submitted 396 commitments (statements of their policy and financial intentions). More than \$27 billion in nutrition-related financial contributions was announced by governments and other stakeholders, including Japan’s contribution of more than ¥300 billion in nutrition-related assistance announced by Prime Minister Kishida. By promoting concrete actions by a wide range of stakeholders in this way, Japan led efforts to improve nutrition around the world.

In addition, on the occasion of the Summit, Science and Technology Advisor to the Minister for Foreign Affairs MATSUMOTO Yoichiro and Science and Technology Co-Advisor to the Minister for Foreign Affairs KANO Mitsunobu, together with like-minded international science and technology advisors,⁷² issued a joint statement titled “Promoting Global Utilization of Science, Technology and Innovation for Food Systems Transformation to Ensure the Health of People and the Planet (STEPP).”

■ Establishment of Food Value Chains and Promotion of Agriculture, Forestry, and Fisheries

In developing countries, low purchase prices for agricultural products are one of the factors that prevent many farmers from escaping poverty. Japan is promoting the establishment of food value chains for developing countries in cooperation with private



A JICA Timor-Leste office staff and an official from the country's Ministry of Agriculture and Fisheries conducting a survey to improve rice farming techniques (Photo: JICA)

companies. In FY2021, based on the “Plan to Promote the Establishment of Global Food Value Chain,” Japan organized bilateral policy dialogues with Palau and workshops with Thailand and Viet Nam.

Moreover, Japan places emphasis on agriculture as an essential industry that plays an important role in Africa’s economic growth, and actively contributes to its development (see “Project Introduction Columns” on page 67 for efforts on agriculture that take into account children’s rights in Ghana, and on page 133 for the digital transformation (DX) of agriculture in Africa). Specifically, under the Coalition for African Rice Development (CARD)* 2nd phase, efforts are underway to improve the quantity and quality of rice production applying the RICE approach.* The approach includes support for the development of irrigation facilities, research on superior rice varieties including New Rice for Africa (NERICA),* a hybrid of Asian and African rice varieties, and dissemination of production technology.

Moreover, in order to transform agriculture from self-sufficient to income generating activities, Japan has trained 18,013 technical instructors and 183,042 smallholders from 29 countries, including non-African countries, to promote market-oriented agriculture through the Smallholder Horticulture Empowerment & Promotion (SHEP) approach* by the end of 2021.

■ Food Security through a Multilateral Cooperation Approach

Furthermore, Japan has been involved in the development of the Agricultural Market Information System (AMIS)⁷³ in order to contribute to the improvement of food security through enhancement of transparency in international agricultural markets. Japan has provided project costs to AMIS, while sharing information on Japan’s experiences.

Japan also provides assistance in the agricultural

⁷² Science and technology advisors to foreign ministries, diplomatic missions, and government agencies in the United States, the United Kingdom, Italy, India, the European External Action Service, the Netherlands, and Canada (Government of Quebec).

⁷³ A system launched in 2011 by the G20 as a measure to counter the wild fluctuations of food prices. Various countries, corporations, and international organizations utilize the system to share information on the agricultural and food market (such as production volumes and prices) in a timely, accurate, and transparent manner.

sector through international organizations such as FAO, IFAD, the Consultative Group on International Agricultural Research (CGIAR), and WFP in order to strengthen developing countries' own foundations for food production. For example, Japan, in partnership with FAO, has provided assistance in technical cooperation for the agricultural and rural development of developing countries, the establishment of international standards and norms in the food and agriculture fields, and the development of statistics, etc. In addition, Japan has provided support for research on the variety development conducted by CGIAR, which is comprised of 15 international agricultural research institutions.

Furthermore, in addition to these assistance in the agricultural sector, Japan makes contributions to the enhancement of animal hygiene through the World Organisation for Animal Health (OIE) and FAO. For example, Japan participates in the Global Framework for Progressive Control of Transboundary Animal Diseases (GF-TADs), which was established by OIE and FAO in response to transboundary zoonotic diseases such as foot-and-mouth disease and African Swine Fever (ASF), and supports the initiatives of international organizations in the field of animal hygiene mainly for the Asia-Pacific region.



Glossary

Global Financing Facility (GFF)

This initiative was launched in 2015 by the World Bank, the United Nations, and others to expand financial resources for the maternal and child health field. The GFF provides technical assistance for the formulation of maternal and child health policies, including those to improve the nutritional status of women and children, and for the enhancement of implementation capacity. The GFF aims to effectively mobilize funds by providing support to formulate plans with the pre-condition that low-interest loans from the World Bank and other sources are used to implement said plans.

Japan Trust Fund for Scaling Up Nutrition

The Trust Fund was established in 2009 to scale up nutrition investments in high undernutrition-burden countries and to strengthen in-country capacity to implement nutrition programs. It provides technical assistance to high undernutrition-burden countries to formulate policies for improving nutrition and to improve their implementation capabilities, thereby boosting nutrition investments by the countries concerned and the World Bank.

Food Value Chain

This is an activity in which many stakeholders, including the farmers, suppliers of farming implements such as seeds, fertilizers, and farming machinery, processing companies of agricultural produce, transportation and distribution companies, and retailers, cooperate to create a chain that can enhance the added value of agricultural produce from the stages of production, to manufacturing and processing, distribution, and consumption. For example, it includes improving the quality of products, developing attractive new products, reducing transportation costs, increasing sales opportunities by expanding the sales network, and other activities.

Coalition for African Rice Development (CARD)

CARD is a consultative group composed of donor countries, African regional organizations, and international organizations, partnered with rice-producing countries in Africa that are interested in rice production and development. It was proposed and launched by Japan at the TICAD IV in 2008 to support self-help efforts toward the expansion of rice production in Africa. Japan also launched the CARD Phase 2 at TICAD7 in 2019.

Resilience, Industrialization, Competitiveness, Empowerment (RICE) approach

An initiative adopted under CARD Phase 2 to realize the goal of doubling rice production in Sub-Saharan Africa. Specific efforts include stabilizing production through adaption to climate change and population growth, industrial formation in local areas in cooperation with the private sector, enhancing the quality of home-grown rice so that it can compete with imported rice, and the establishment of agricultural management systems for improving the household incomes and livelihoods of farmers.

New Rice for Africa (NERICA)

NERICA is a general term for rice developed in 1994 by the CGIAR Africa Rice Center through the hybridization of high-yield Asian rice with African rice, which is resistant to weeds, diseases, and insect pests. In order for NERICA to suit the natural conditions of each region in Africa, they are characterized by (i) a higher yield, (ii) a shorter growth period, (iii) higher resistance to dryness (drought), and (iv) higher resistance to diseases and insect pests than conventional rice. Since 1997, Japan has partnered with international organizations and NGOs and provides support for research and development related to new types of NERICA, test cultivation, and increased production and popularization of seeds. In addition, Japan has dispatched agricultural experts and JOCVs to offer cultivation training and has also accepted trainees from Africa for training in Japan.

Smallholder Horticulture Empowerment & Promotion (SHEP) approach

The SHEP approach refers to an effort to assist smallholder farmers producing fruits, vegetables, and other produce and was started by Japan in Kenya in 2006, aimed at increasing their income by causing a mindset shift from "selling after growing" to "growing to sell" and through improvements to farm management and cultivation skills. Japan is promoting the activities integrating the SHEP approach around the world with a focus on Africa.

Responsible Agricultural Investment (RAI)

RAI is an initiative that aims to reduce the poverty of local residents including farmers and to maximize the interest of investors, as well as to minimize the risks to both local residents and investors, by balancing between the responses to the agricultural investment by domestic and foreign investors and the responses to the unintentional negative impact of agricultural investment, such as a threat to food security and rights of the local people including land ownership in rural areas of developing countries. The initiative was proposed by Japan at the G8 L'Aquila Summit (2009), and Principles for Responsible Agriculture Investment (PRAI) were formulated by four international organizations: FAO, IFAD, the United Nations Conference on Trade and Development (UNCTAD), and the World Bank. In 2014, the Committee on World Food Security (CFS) adopted the CFS Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI).

India

Himachal Pradesh Crop Diversification Promotion Project (Phase 2)
Technical Cooperation Project (March 2017 – February 2022)

Himachal Pradesh State in India, located in the foothills of the Himalayas, had not sufficiently developed irrigation facilities, therefore agriculture was centered on cereal crop cultivation dependent on rainwater, which limited production to only self-sufficient volumes. Furthermore, increasing farmers' income has been a challenge since 80% of them are smallholders.

As the state has large elevation differences, from 300 meters to 7,000 meters above sea level, and the climate is cool, the harvesting seasons for vegetables, fruit, etc., differ from neighboring major cities, such as Delhi. This means the state can make shipment of its produce in the off-season. Beginning with the development survey started in 2007, Japan has been providing continuous support so that those farmers can cultivate not only the conventional cereal crops but also crops with a high commodity value including vegetables and other produce. Japan has combined a variety of its schemes to support them, such as loan aid to develop irrigation facilities and farm roads, and technical cooperation, dispatching Japanese experts for human resources development. Phase 2 of the technical cooperation project began in 2017, which aims at strengthening post-harvest activities such as treatment,



Ms. Nagata and the Indian agricultural extension workers giving guidance to farmers on okra cultivation techniques (Photo: JICA)



Ms. Nagata and the Indian agricultural extension workers giving guidance to a group of women on how to make the grafted vegetable seedlings (Photo: JICA)

processing, and marketing, which contribute to selling agricultural products at higher prices.

Japanese expert Ms. NAGATA Yoko has been supporting the activities of the state's Department of Agriculture through technical guidance under this project on vegetable cultivation and post-harvest processing. She utilizes Japan's agricultural techniques, in particular the Nagata Farming Method*¹ devised by Mr. NAGATA Terukichi, her father, and provides support for the selection, introduction, and application of appropriate techniques suited to local conditions, while earning the support of the agricultural extension workers and farmers.

A variety of changes have been brought by Japan's support to date, such as the increase of income of approximately 14,000 smallholders and the introduction of a nutrition improvement project using the harvested vegetables. Through phase 2 of this project, Japan will continue to encourage the diversification of crops and growing of crops with higher added value, which is expected to further improve the income of these farmers.

*1 An agricultural method of growing produce with a minimum amount of water and fertilizer.

(9) Securing Access to Resources and Energy

The number of people without access to electricity is estimated at approximately 760 million in the world and more than 46% of the population in Sub-Saharan Africa as of 2019. The lack of electricity, gas, and other energy supplies also leads to many issues, such as delay in industrial development, loss of employment opportunities, and a further increase in the poverty rate.



A site visit to a power plant in Laos supported by Japan's technical cooperation that aims to strengthen power system planning and operation for stable supply and power export (Photo: JICA)

Stable energy supply and appropriate consideration of the environment are essential since the global energy demand is expected to be expanded further in Asia and other parts of emerging and developing countries.

Japan's Efforts

Japan is working on the provision of support that enables modern energy supply and the stable supply of electricity for industrial development, in order to promote sustainable development in developing countries. In addition, Japan provides support for the establishment of environmentally friendly infrastructure (socio-economic infrastructure), such as energy-saving equipment and power generation facilities that utilize renewable energies (hydropower, solar photovoltaics, solar thermal, wind power, geothermal power, etc.).

For example, in 2021, in the Pacific Island countries located across expansive ocean areas with vulnerability to the influence of climate change, Japan assists grid-connected type renewable energy in becoming mainstream from the perspective of energy security and the realization of low-carbon or decarbonized societies. In the Dominican Republic, which highly relies on

Stories from the Field

Realizing Hybrid Power Generation in the Pacific Island Countries Using Experience and Technology of Okinawa

—Stable, clean, and low-cost power generation technology for the island countries with power vulnerability—



4

Diesel-power generation is mainstream in most Pacific Island countries. As these countries rely on imports for almost 100% of their fuel, they are vulnerable to the impacts of transportation costs and price rises, which is an energy security issue. There is also a need to shift to renewable energy sources such as solar and wind as a countermeasure against global warming.

In response to this situation, the “Project for Introduction of Hybrid Power Generation System”^{*1} in the Pacific Island Countries” was launched in 2017, with its base in Fiji. It targets public power companies in the five countries of Fiji, Federated States of Micronesia, Marshall, Kiribati, and Tuvalu.

“Although diesel power generation enables a stable power supply, fuel costs and power generation facility maintenance costs are high, creating a considerable burden for power companies. On the other hand, renewable energy such as solar power is low-cost and clean, however it does not provide a stable power supply without appropriate planning because power output fluctuates according to weather conditions. A hybrid power generation system combines the respective advantages of these two power generation systems, namely stable and low-cost power supply. The governments of the target countries are highly conscious of the issues of global warming and energy security, and I feel their high expectations for this project,” said JICA Senior Advisor Mr. OGAWA Tadayuki, who works as Chief Advisor of the project.

In order to promote the introduction of hybrid power generation systems and to ensure that the equipment can be properly maintained and managed by the engineers of power companies in each country after the project is completed, the project has focused on instructing key engineers from each country who are appointed as “core trainers.” Furthermore, experts from Okinawa are passing on the expertise and technology that they have acquired from their experiences in the islands of Japan, in order to turn the training center of Energy Fiji Limited (EFL) into a center for South-South cooperation.



Providing guidance to Kiribati engineers on measuring engine parts (Photo: Okinawa Enetech)



Online training with engineers from each countries (Photo: Okinawa Enetech)

Due to the impact of the COVID-19 pandemic, the project utilizes video conferencing systems to provide training on improving the operational efficiency of diesel power generation, and on introducing, operating, and maintaining hybrid power generation systems. “I think that even though the training has been conducted remotely, we have definitely improved the training impact by exercising our ingenuity, such as enhancing the study materials and conducting examinations to check trainees’ level of understanding. Another advantage is that when trainees have any questions on-site, we can contact them online and provide advice directly,” said Mr. KAKEFUKU Luis of Okinawa Enetech Co., Inc., who is playing a central role in technical consultation. This detailed consultation has produced concrete results in the various countries, including more efficient solar power generation and improved fuel consumption rates in diesel power generators.

In the training process, efforts were made to transform the mindsets of each country’s power company officials related to power generation, including safety management, and organization. “As a result of continuous consultation, the inside of power generation facilities are more organized and engineers who took part in the training have become more safety-conscious. I heard about engineers buying safety shoes, suggesting that they were taking a proactive approach,” said Mr. Kakefuku.

There have been high levels of interest in this project across the Pacific region. Some engineers from EFL became instructors in March 2021 and have carried out local training for seven countries^{*2} that were not originally covered by the project. The knowhow based on experiences in Okinawa has been accumulated in Fiji, and with EFL as a center, initiatives to introduce hybrid power generation systems are continuing to spread across the Pacific region.

^{*1} A form of power generation that combines two or more systems from among diesel power generation and various renewable energy sources (solar, wind, etc.).

^{*2} Cook, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, and Tonga.

imported fossil fuels for its electricity supply, Japan supports LED lights use for streetlights on public roads across the country through ODA loans in order to help improve the energy efficiency of the country. With such efforts, Japan contributes to promoting energy conservation and reducing greenhouse gas emissions in the public sector (see “Stories from the Field” on page 86).

Japan also supports the Extractive Industries Transparency Initiative (EITI), which is a multinational cooperative framework to enhance the transparency of the flow of funds in the development of oil, gas, mineral, and other resources. Under this framework, extracting companies report the amount of payment to the governments of resource-producing countries, and these governments also report the amount of the revenue received from extracting companies to the EITI. In addition to 47 resource-producing countries and many supporting countries including Japan, extracting companies and NGOs are participating in the EITI. They are working together to ensure transparency of the flow of funds in order to prevent corruption and conflict, as well as to encourage responsible development that leads to growth and poverty reduction.

(10) Science, Technology, and Innovation (STI) for SDGs

In the world today, social changes occur in diverse industries, including not only the manufacturing industry and the service industry but also agriculture and construction, by utilizing information and communication technology (ICT), ⁷⁴ artificial intelligence (AI) and robotics.

Based on the 2030 Agenda for Sustainable Development (Paragraph 70), the UN has established the United Nations Inter-agency Task Team on STI for the SDGs (UN-IATT) and is promoting STI for the SDGs on a global scale, in cooperation with each country. In 2021, the United Nations Multi-Stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum) was held again and international expectations for STI are increasing as a key to realize the SDGs while optimizing limited resources.

Japan's Efforts

In the process of Japan's economic development, Japan has overcome its own challenges in fields such as health and medical care, environment, and disaster risk reduction, fully utilizing STI. Based on these experiences, Japan is engaged in science and technology cooperation through the Science and Technology Research



Science and Technology Advisor to the Minister for Foreign Affairs Matsumoto presenting the recommendation “Planetary health: STI for food systems transformation” and the STI showcase (collection of case studies) to then State Minister for Foreign Affairs Washio

Partnership for Sustainable Development (SATREPS) program ⁷⁵ and others in order to resolve challenges that developing countries are facing. The Project for Strengthening of the Environmental Radiation Control and Legislative Basis for the Environmental Remediation of Radioactively Contaminated Sites in Ukraine, which was implemented in 2021, is a good example of problem-solving through the SATREPS program (see “Master Techniques from Japan to the World” on page 73 and 135 for details on specific initiatives of the SATREPS program).

Furthermore, Japan is advancing research and analysis towards the establishment of an “STI for SDGs Platform,” which is to promote the use of Japan's advanced science and technology that could help developing countries to achieve the SDGs.

The UN-IATT is conducting the Global Pilot Programme in the five pilot countries – Ethiopia, Ghana, Kenya, India and Serbia, in order to encourage countries to formulate STI for SDGs Roadmaps across the world. Under this programme, Japan has provided assistance to Kenya in the agricultural sector since FY2020 through its contributions to the World Bank.

In 2021, the Advisory Board for Promoting Science and Technology Diplomacy ⁷⁶ presented the recommendation “Planetary health: STI for food systems transformation” prepared for the UN Food Systems Summit and the Tokyo Nutrition for Growth Summit 2021. Based on this recommendation, the Advisory Board compiled an STI showcase of STI cases that presents Japan's strengths, to improve hunger and malnutrition and contribute to food systems transformation, taking the global environment into consideration.

⁷⁴ See ⁵ on page 4.

⁷⁵ See the glossary on page 39.

⁷⁶ At MOFA, Science and Technology Advisor to the Minister for Foreign Affairs Matsumoto and the Advisory Board for Promoting Science and Technology Diplomacy, a group of academic experts in fields related to science and technology diplomacy, support the activities of the Minister of Foreign Affairs on related matters. Their aim is to strengthen the collaboration and networks with the advisors and related parties in Japan and abroad. They advise the Minister for Foreign Affairs and related departments on matters such as how to incorporate science and technology in the planning and drafting process of various foreign policy strategies.